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HYMENOPTERA OF AMERICA NORTH OF MEXICO

SYNOPTIC CATALOG

Prepared cooperatively by
specialists on the various groups of Hymenoptera
under the direction of
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HYMENOPTERA OF AMERICA NORTH OF MEXICO—SYNOPTIC CATALOG

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INTRODUCTION

As knowledge in any field grows, the tools that are to aid in making effective use of that knowledge and that are to stimulate further advances must be modernized. Among the most useful tools in the field of entomology are up-to-date catalogs of the various major groups of insects. They unlock the door to the vast store of published information pertaining to any particular species or form, and they clarify the relationships that species bear to one another. Such a modern catalog of the North American insects of the order Hymenoptera, which includes the sawflies, wood wasps, parasites of other insects that are used in biological control undertakings, bees, wasps, ants, gall wasps and related forms, has long been needed. The last regional catalog of this type was that by Cresson, published in 1887, although the North American species were included in the catalog of the known Hymenoptera of the world, by Dalla Torre, which was published in Germany in 10 volumes, between 1892 and 1902.

During the past 50 years several thousand new North American species have been described and named. Many more have been assigned to genera different from those in which they were originally described; numerous others have been found to be synonyms of previously described species; and still others have had to be renamed because of prior use of the same names for different species. Moreover, many species and genera, the names of which had been wrongly applied, have had to be redefined to correct misidentifications. New genera, too, have been established, and the classification not only of genera and species, but also of tribes, subfamilies, and families, has been appreciably altered. All this is the result of continued research which has grown increasingly critical and is continually adopting new approaches and applying new techniques.

The present contribution represents an attempt to bring together

that information in readily usable form. It had its inception in 1946 when three specialists in the Division of Insect Identification, U. S. Bureau of Entomology and Plant Quarantine, undertook to organize a cooperative effort in which participation by the foremost workers in the various groups of Hymenoptera was enlisted, and which had as its objective the preparation of a sound and authoritative synoptic catalog of the known insects belonging to this order that occur in America north of Mexico. At the outset it seemed doubtful that the efforts of more than 20 different and widely scattered taxonomists, all busily engaged with the work and problems of their respective positions, could be coordinated so as to insure completion of the projected catalog within a reasonable period. The cooperation on this undertaking, however, has been extraordinary; and when funds for publication became available, all individual contributions could be rather promptly completed and assembled and could be put into required form with a minimum of effort.

The specialists who participated in the development of this catalog and who are recorded as authors of the sections for which they were responsible are the following: W. G. Bodenstein, G. E. Bohart, R. M. Bohart, B. D. Burks, Howard E. Evans, Paul D. Hurd, Karl V. Krombein, E. Gorton Linsley, William R. M. Mason, C. D. Michener, W. W. Middlekauff, C. F. W. Muesebeck and Luella M. Walkley (joint contributions), W. D. Murray, Oswald Peck, D. T. Ries, Hugo G. Rodek, H. H. Ross, H. A. Scullen, M. R. Smith, L. J. Stannard, Henry K. and Marjorie Townes, and L. H. Weld. In addition invaluable assistance was given by a number of other specialists in Hymenoptera, notably A. B. Gahan and P. H. Timberlake.

ARRANGEMENT

SUPERSPECIFIC CLASSIFICATION

An attempt has been made to record all the forms, with their synonyms, described from, or known to occur in, the political divisions of the United States, Canada, Alaska, and Greenland. The arrangement is systematic for subgenera and higher groups in so far as our present knowledge and the limitations of a linear arrangement permit. The generic and subgeneric concepts represented in this arrangement rest upon what are believed to be correct genotype designations. In each instance the genotype is cited together with the authority for the selection. Where genotype designations have been found to be invalid under the International Rules of Zoological Nomenclature, new genotype designations, believed to be valid, are given in the catalog. Generic synonymy is included under the generic headings except where subgenera are recognized, in which cases such synonymy is given under the subgeneric names, and references to revisional papers are listed under the appropriate generic, tribal, subfamily, or family headings.

TRIVIAL NAMES

Within the genera and subgenera the arrangement of species is alphabetical. Where subspecies are recognized the subspecific names are placed in alphabetical order under the species to which they belong; and varieties are listed under the species in which they occur except that varieties of subspecies are placed under the particular subspecies in

which they were described. In each case the specific, or other trivial, name is followed by an indication of the known distribution, and by brief statements showing hosts or prey or preferred habitats, where such information is available and significant. Much of the information on synonymy, distribution, hosts or prey preferences and habitats has hitherto been unpublished. The type localities are recorded for those forms that are known only from the localities where the type specimens were obtained. Otherwise the distribution is usually shown by states and provinces, or by the use of the faunal zones.

MAP OF FAUNAL ZONES

The map of faunal zones (frontispiece) is an adaptation by Arthur D. Cushman of the U. S. Biological Survey's Fourth Provisional Zone Map of North America, 1910, by C. Hart Merriam, Vernon Bailey, E. W. Nelson, and E. A. Preble. The only changes, other than those occasioned by the use of symbols instead of colors for the various zones, have been the addition of a small area of Tropical Zone at the extreme southern tip of Texas and a rezoning of Alaska on advice received from R. I. Sailer. It should be emphasized that with so great a reduction as used in the reproduction of this map, it has been necessary to represent narrow extensions and certain small isolated areas of some of the zones as more extensive than they actually are.

ABBREVIATIONS AND SYMBOLS

The abbreviations and arrangement of titles of journals used in this work are essentially those recommended in United States Department Agriculture Miscellaneous Publication 377, 1939. Certain other abbreviations and symbols used in the catalog are explained as follows:

(!) = *lapsus* or misspelling of a scientific name.

"♂" = ♀ or "♀" = ♂ = incorrect sex determination.

♂ (♀ misdet.) or ♀ (♂ misdet.) = only one of sexes described belongs to the species cataloged.

emend. = emendation.

n. comb. = new combination; used after a specific or infraspecific heading to indicate a new generic assignment.

n. name = new name; used after a specific or infraspecific heading to indicate a new substitute name for a homonym; used after bibliographic citation to indicate a substitute name proposed earlier for a homonym.

n. status = new status; used where a form is here accorded a rank different from that which it had previously.

n. syn. = new synonymy; used after generic or specific bibliographic citations to indicate a new synonym.

preocc. = preoccupied; used after a generic or specific citation to indicate a homonym.

The faunal zones and their divisions are also abbreviated wherever used. The abbreviations are explained as follows:

Bor. = Boreal

Canad. = Canadian

Huds. = Hudsonian

Transit. = Transition

Austr. = Austral
U. Austr. = Upper Austral
L. Austr. = Lower Austral
Austrorip. = Austroriparian
Carol. = Carolinian
Sonor. = Sonoran

SCOPE

This catalog has been prepared with much care and it is thought to include all essential material published through 1949. It must be recognized, however, that in the field of taxonomy no contribution can long remain up-to-date. New forms are continually being discovered, and further research is constantly necessitating adjustments in concepts and in classifications. Within such unavoidable limitations it is hoped the catalog will be useful in many different entomological activities, and that it will stimulate young workers possessing an aptitude for taxonomy to take up the study of the fascinating and economically important insects that make up the order Hymenoptera.

Order HYMENOPTERA

General: Schröder, 1925. Handb. d. Ent. 3: 712–825, figs. 593–705.—Handlirsch and Meixner, 1933. *In* Krumbach, Handb. d. Zool., v. 4, Insecta 2, pp. 895–1036.—Comstock, 1940. An Introduction to Entomology, pp. 884–1007.—Essig, 1942. College Entomology, pp. 619–727.—Imms, 1948. A General Textbook of Entomology, ed. 7, pp. 544–615.

Taxonomy: Cresson, 1887. Amer. Ent. Soc. Trans., Sup. Vol., pp. 1–350 (key to No. Amer. families, genera and catalog of spp.).—Dalla Torre, 1892–1902. Cat. Hym., 10 vols. (world spp.).—Viereck, *et al.*, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 1–824, 10 pls., 15 text figs. (keys to Conn. spp.).—Brues and Melander, 1932. Harvard Univ., Mus. Compar. Zool. Bul. 73: 471–526, figs. 887–971 (keys to families, adults, and larvae).

Morphology: Snodgrass, 1911. U. S. Natl. Mus. Proc. 39: 37–91, 16 pls., 19 text figs. (thorax).—Rohwer and Gahan, 1916. Ent. Soc. Wash. Proc. 18: 20–76, 3 pls. (wing venation).—Comstock, 1918. The Wings of Insects, pp. 362–381, pl. 10, text figs. 380–405.—Snodgrass, 1935. Principles of Insect Morphology, 667 pp., 319 figs.—Ross, 1936. Ent. Soc. Amer. Ann. 29: 99–111, 2 pls. (wing venation).—Snodgrass, 1941. Smithsn. Inst. Misc. Collect. 99 (14): 1–86, 33 pls., 6 text figs. (male genitalia).

Biology: Bishoff, 1927. Biologie der Hymenopteren, 598 pp., 224 figs.—Wheeler, 1923. Social Life Among the Insects, 375 pp., 113 figs.—Wheeler, 1928. Social Insects, 378 pp., 79 figs.—Clausen, 1940. Entomophagous Insects, 688 pp., 257 figs.

Suborder SYMPHYTA (=CHALASTOGASTRA)[1]

Revisions: Norton, 1867–1869. Amer. Ent. Soc. Trans. 1: 31–84, 193–280; 2: 211–242, 321–368.—Ashmead, 1898. Canad. Ent. 30: 141–145, 177–183, 205–213, 225-232, 249-257, 281-287, 305-316.—Rohwer, 1911. Ent. Soc. Wash. Proc. 13: 215–224.—MacGillivray, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 25–175.—Ross, 1937. Ill. Biol. Monog. 15 (2): 1–173.

Catalog: Konow, 1905. *In* Wytsman, Gen. Ins., fasc. 27, pp. 1–27; fasc. 28, pp. 1–14; fasc. 29, pp. 1–176.

The suborder Symphyta comprises the sawflies and horntails. The

[1] By Herbert H. Ross, Ill. Nat. Hist. Survey, Urbana, Ill.; except the Siricoidea, the Pamphiliidae, and the genus *Periclista*, for which D. T. Ries, Woodrow W. Middlekauf, and L. J. Stannard, respectively, are responsible.

larvae are either external leaf eaters, leaf miners, or stem borers, with the exception of the single family Orussidae, whose larvae are parasitic on wood-boring beetle larvae.

The following list of sawflies has many genera in which only a listing of specific names can be given, as these genera need to be revised. In certain other genera the extensive synonymy given is based on unpublished studies.

The literature contains many host records published at a time when specific diagnosis was different from that now in use. As a consequence many of them must be verified by a re-study of the reared adults before these records can be correlated with the present concepts of species. These concepts, new and old, differ not only in the occasional changing levels of evaluation of the same characters but more frequently in the complete change of characters on which identification is based. In view of this, many published host records have been omitted from this list. In order, however, that this literature on sawfly hosts may be known to the student, a bibliography of the more comprehensive papers is given here.

Dyar, 1893–95. Canad. Ent. 25: 244–248; 26: 42–45, 185–189; 27: 191–196, 208–212.—Dyar, 1895. Amer. Ent. Soc. Trans. 22: 301–312.—Dyar, 1897. N. Y. Ent. Soc. Jour. 5: 18–30, 190-201.—Dyar, 1898. Canad. Ent. 30: 173–176.—Dyar, 1898. N. Y. Ent. Soc. Jour. 6: 121–138.—Dyar, 1900. N. Y. Ent. Soc. Jour. 8: 26–31.—MacGillivray, 1913. Ent. Soc. Ontario, Ann. Rpt. 44: 54–75.—Middleton, 1921. Ent. Soc. Wash. Proc. 23: 139–144, 173–192.—Middleton, 1922. U. S. Natl. Mus. Proc. 61: 1–31.—Yuasa, 1922. Ill. Biol. Monog. 7 (4): 1–168.

Superfamily MEGALODONTOIDEA

Family XYELIDAE

Revision: Ross, 1932. Ent. Soc. Amer. Ann. 25: 153–169.
Catalog: Klima, 1937. *In* Hedicke, Hym. Cat., pt. 4, 12 pp.
Generic classification: Benson, 1945. Roy. Ent. Soc. London, Proc., Ser. B: Taxonomy 14: 34–37.

Genus XYELA Dalman

Pinicola Brébisson, 1818. Soc. Philomath. de Paris, Bul. des Sci., p. 116. Preocc.
Type: ***Pinicola julii*** Brébisson. Desig. by Rohwer, 1911.
Xyela Dalman, 1819. Svenska Vetensk. Akad. Handl. 40: 122.
Type: ***Xyela pusilla*** Dalman. Desig. by Curtis, 1824.
Mastigocera Klug, 1827. *In* Berthold, Latreille's Nat. Fam. Thierr., p. 442.
Tritokreion Schilling, 1825. Schles. Gesell. f. Vaterland. Kult. Übers. Arb. 2: 43. No included species.
Neoxyela Curran, 1923. Canad. Ent. 55: 20.
Type: ***Neoxyela alberta*** Curran. Monob.
Revision: Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 265–281.

The larvae of this genus live in the staminate cones of *Pinus*. The adults appear early in spring and are usually collected on catkins of willow and alder.

alberta (Curran). Alta.
Neoxyela alberta Curran, 1923. Canad. Ent. 55: 20. ♂ ♀.

alni Rohwer. Va.
Xyela alni Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 268. ♂ ♀

bakeri Konow. Western.
Xyela bakeri Konow, 1898. Ent. Nachr. 24: 328.

Xyela negundinis Cockerell, 1907. Canad. Ent. 39: 324.

brunneiceps Rohwer. Colo.
Xyela brunneiceps Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 269. ♀.

californica Rohwer. Calif.
Xyela californica Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 272. ♂.

coloradensis Rohwer. Colo.
Xyela coloradensis Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 272. ♂.

dissimilis Rohwer. Alta.
Xyela dissimilis Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 270. ♀.

errans Rohwer. N.C.
Xyela errans Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 269. ♀.

intrabilis MacGillivray. N. Y.
Xyela intrabilis MacGillivray, 1923. Brooklyn Ent. Soc. Bul. 18: 53. ♂.

luteopicta Cockerell. N. Mex.
Xyela luteopicta Cockerell, 1902. Canad. Ent. 34: 194.

minor Norton. Eastern.
Xyela minor Norton, 1868. Amer. Ent. Soc. Trans. 2: 349. ♀.

nevadensis Rohwer. Nev.
Xyela nevadensis Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 271. ♀.

pini Rohwer. Tex.
Xyela pini Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 267. ♂ ♀.

salicis Rohwer. Colo.
Xyela salicis Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 266. ♂ ♀.

similis Rohwer. Tex.
Xyela similis Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 271. ♂.

slossonae Rohwer. Fla.
Xyela slossonae Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 270. ♂ ♀.

winnemanae Rohwer. Md.
Xyela winnemanae Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 268. ♀.

Genus PLERONEURA Konow

Pleroneura Konow, 1897. Ent. Nachr. 23: 56.
Type: *Xyela dahli* Hartig. Desig. by Rohwer, 1911.
Pleuroneura Ashmead, 1898. Psyche 8: 214. Emend.
Manoxyela Ashmead, 1898. Psyche 8: 214.
Type: *Manoxyela californica* Ashmead. Orig. desig.

aldrichi Ross. Idaho.
Pleroneura aldrichi Ross, 1932. Ent. Soc. Amer. Ann. 25: 158. ♂ ♀.

borealis Felt. N. Y.
Pleroneura borealis Felt, 1917. Canad. Ent. 49: 220. ♂ ♀.

brunneicornis Rohwer. N. Y.
Pleroneura bruneicornis (!) Rohwer, 1910. Canad. Ent. 42: 89. ♀.
Pleroneura brunneicornis Rohwer, 1910. Canad. Ent. 42: 220.

californica (Ashmead). Calif.
Manoxyela californica Ashmead, 1898. Psyche 8: 214. ♀?
?*Pleroneura fulvicornis* Rohwer, 1910. Canad. Ent. 42: 89. ♂.

koebelei Rohwer. Oreg.
Pleroneura koebelei Rohwer, 1910. Canad. Ent. 42: 90. ♂.

lutea Rohwer. Oreg.
Pleroneura lutea Rohwer, 1910. Canad. Ent. 42: 90. ♂.

schwarzi Rohwer. Alta.
Pleroneura schwarzi Rohwer, 1910. Canad. Ent. 42: 220. ♀.

Genus XYELECIA Ross

Xyelecia Ross, 1932. Ent. Soc. Amer. Ann. 25: 159.
Type: *Xyelecia nearctica* Ross. Orig. desig.

nearctica Ross. Calif., Idaho, Oreg.
Xyelecia nearctica Ross, 1932. Ent. Soc. Amer. Ann. 25: 160. ♀.

Genus MEGAXYELA Ashmead

Megaxyela Ashmead, 1898. Psyche 8: 214.
Type: *Xyela major* Cresson. Orig. desig.
Odontophyes Konow, 1899. Wien. Ent. Ztg. 18: 42.
Type: *Pleroneura aviingrata* Dyar. Monob.
Paraxyela MacGillivray, 1912. Canad. Ent. 44: 294.
Type: *Xyela tricolor* Norton. Orig. desig.

aviingrata (Dyar). Eastern, west to Ill. Host: *Hicoria.*
Pleuroneura aviingrata Dyar, 1898. Psyche 8: 213. ♀.

bicoloripes (Rohwer). Miss., Pa.
Odontophyes bicoloripes Rohwer, 1924. Ent. Soc. Wash. Proc. 26: 215. ♀.

langstoni Ross. Miss. Host: *Hicoria pecan.*
Megaxyela langstoni Ross, 1936. Ent. News 47: 131. ♂ ♀.

major (Cresson). Kans., N. Y., Tex. Host: *Hicoria.*
Xyela major Cresson, 1880. Amer. Ent. Soc. Trans. 8: 34. ♂ ♀.
Odontophyes ferruginea Bridwell, 1906. Ent. News 17: 94. ♀.

tricolor (Norton). Ill., Kans.
Xyela tricolor Norton, 1862. Ent. Soc. Phila. Proc. 1: 114. ♂.

Genus MACROXYELA Kirby

Macroxyela Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 351.
Type: *Xyela ferruginea* Say. Orig. desig.

aenea (Norton). Tex.
Xyela aenea Norton, 1872. Amer. Ent. Soc. Trans. 4: 86. ♂.

bicolor MacGillivray. Ill., Ohio.
Macroxyela bicolor MacGillivray, 1912. Canad. Ent. 44: 294. ♂.
Macroxyela bicolor var. *harti* Ross, 1932. Ent. Soc. Amer. Ann. 25: 166. ♂. N. syn.

ferruginea (Say). Eastern, west to Kans. and Idaho. Host: *Ulmus.*
Xyela ferruginea Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2 (App.), p. 310. ♀.
Xyela infuscata Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 224. ♂.
Macroxyela obsoleta MacGillivray, 1912. Canad. Ent. 44: 294. ♀.
Macroxyela distincta MacGillivray, 1912. Canad. Ent. 44: 295. ♀.

Family PAMPHILIIDAE[2]

Catalog: Klima, 1937. *In* Hedicke, Hym. Cat., pt. 3, 84 pp.
Generic classification: Benson, 1945. Roy. Ent. Soc. London, Proc., Ser. B: Taxonomy 14: 25-33.

Genus ACANTHOLYDA A. Costa

Acantholyda A. Costa, 1894. Prosp. Imen. Ital., v. 3, p. 232.
Type: *Tenthredo erythrocephala* Linnaeus. Desig. by Rohwer, 1910.
Itycorsia Konow, 1897. K. K. Naturhist. Hofmus. Ann. 12: 13.
Type: *Tenthredo hieroglyphica* Christ. Desig. by Rohwer, 1910.

abdominalis (Norton). Pa., Mass., Nev.

[2] By Woodrow W. Middlekauff, University of California, Berkeley, Calif.

Lyda abdominalis Norton, 1862. Ent. Soc. Phila. Proc. 1: 199. ♀.
Lyda montivaga Cresson, 1880. Amer. Ent. Soc. Trans. 8: 28. ♂.

albomarginata (Cresson). Colo., Conn., N. Y.
Lyda albomarginata Cresson, 1880. Amer. Ent. Soc. Trans. 8: 30. ♀.

angulata (MacGillivray). Conn., N. Y.
Itycorsia angulata MacGillivray, 1912. Canad. Ent. 44: 295. ♀.

atrata (Cresson). Nev.
Lyda atrata Cresson, 1880. Amer. Ent. Soc. Trans. 8: 30. ♂.

atripes (Cresson). N. Car.
Lyda atripes Cresson, 1880. Amer. Ent. Soc. Trans. 8: 27. ♀.

balanata (MacGillivray). Oreg.
Itycorsia balanata MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 18. ♀.

balata (MacGillivray). Oreg.
Itycorsia balata MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 18. ♀.

ballista (MacGillivray). Oreg.
Itycorsia ballista MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 19. ♀.

bicolorata (Norton). N. Y., Nev.
Lyda bicolorata Norton, 1869. Amer. Ent. Soc. Trans. 2: 332, 334. ♀.
Lyda nigripes Cresson, 1880. Amer. Ent. Soc. Trans. 8: 28. ♂.

brunnicans (Norton). Colo., Wash.
Lyda brunnicans Norton, 1864. Ent. Soc. Phila. Proc. 3: 15. ♀.
Pamphilius bruneicans Dalla Torre, 1894. Cat. Hym., v. 1, p. 423. Emend.
Lyda olympia MacGillivray, 1893. Canad. Ent. 25: 243. ♂.

brunniceps (Cresson). N. H., N. Y.
Lyda brunniceps Cresson, 1880. Amer. Ent. Soc. Trans. 8: 29. ♀.
Pamphilius bruneiceps Dalla Torre, 1894. Cat. Hym., v. 1, p. 423. Emend.

circumcincta (Klug). Ga.
Lyda circumcincta Klug, 1808. Mag. Gesell. Naturf. Freunde Berlin 2: 279. ♀.

discolor (Cresson). Canada, Pa., Nev.
Lyda discolor Cresson, 1880. Amer. Ent. Soc. Trans. 8: 26. ♀.

erythrocephala (Linnaeus). Widely distributed in Palearctic region. Japan, Korea. Introduced into United States, 1925. Conn., N. J., N. Y., Pa. Host: *Pinus; Larix; Picea; Abies.*
Tenthredo erythrocephala Linnaeus, 1758. Syst. Nat. ed. 10, v. 1, p. 558.
Biology: Griswold, 1939. Jour. Econ. Ent. 32: 467–468.

ferruginea Felt. N. Y.
Acantholyda ferruginea Felt, 1917. Canad. Ent. 19: 192. ♂.

kincaidi (Rohwer). Alaska.
Itycorsia kincaidi Rohwer, 1910. Canad. Ent. 42: 91. ♀.

luteomaculata (Cresson). N. H., Conn., N. Y.
Lyda luteomaculata Cresson, 1880. Amer. Ent. Soc. Trans. 8: 28. ♀.

luteopicta (Rohwer). Minn.
Itycorsia luteopicta Rohwer, 1910. Canad. Ent. 42: 92. ♀.

maculiventris (Norton). Mass., Mich., N. Y., Que.
Lyda maculiventris Norton, 1869. Amer. Ent. Soc. Trans. 2: 333. ♂.
Lyda chicoutimiensis Huart, 1879. Nat. Canad. 11: 149. ♀.

marginiventris (Cresson). N. Y.
Lyda marginiventris Cresson, 1880. Amer. Ent. Soc. Trans. 8: 29. ♀.

modesta MacGillivray. N. Y.
Acantholyda modesta MacGillivray, 1923. Brooklyn Ent. Soc. Bul. 18: 53. ♀.

morrisoni (Cresson). Nev.
Lyda morrisoni Cresson, 1880. Amer. Ent. Soc. Trans. 8: 27. ♀.
Lyda nevadensis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 28. ♂.

nigrita (Cresson). Nev.
Lyda nigrita Cresson, 1880. Amer. Ent. Soc. Trans. 8: 30. ♂.

nivea (Rohwer). Kokanee Mts., B. C.
Itycorsia nivea Rohwer, 1910. Canad. Ent. 42: 92. ♀.

ochrocera (Norton). Conn., Mass., N. H., Pa., N. Y.
Lyda ochrocera Norton, 1869. Amer. Ent. Soc. Trans. 2: 332. ♂ ♀.

pini Rohwer. D. C.
Acantholyda pini Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 377. ♀.

pöppigii (Brischke and Zaddach). Ga., N. C.
Lyda Pöppigii Brischke and Zaddach, 1865. Phys. Ökonom. Gesell. Königsberg Schr. 6: 123. ♀.

ruficeps (Harrington). Ottawa, Canada.
Pamphilius ruficeps Harrington, 1893. Canad. Ent. 25: 62. ♀.

terminalis (Cresson). Nev.
Lyda terminalis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 29. ♀.

tesselata (Klug). Ga., Mass., Nev., Pa.
Lyda tesselata Klug, 1808. Mag. Gesell. Naturf. Freunde Berlin 2: 276. ♀.
Lyda rufiventris Cresson, 1880. Amer. Ent. Soc. Trans. 8: 29. ♂.

variegata (Norton). Calif.; Mexico.
Lyda variegata Norton, 1869. Amer. Ent. Soc. Trans. 2: 335. ♂.
Lyda bucephala Cresson, 1880. Amer. Ent. Soc. Trans. 8: 29. ♂.

verticalis (Cresson). Calif.
Lyda verticalis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 26. ♀.
?*Lyda similaris* Cresson, 1880. Amer. Ent. Soc. Trans. 8: 27. ♀.

zappei (Rohwer). Conn., N. Y.
Itycorsia zappei Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 209. ♂ ♀.

Genus CEPHALCIA Panzer

Cephalcia Panzer, 1805. Faunae Ins. German., heft. 86, pls. 8, 9.
Type: *Cephalcia arvensis* Panzer. Desig. by Rohwer, 1911.
Cephaleia Panzer, 1806. Krit. Rev. Insektenf. Deutschlands, pp. 15, 49.
Emend. of *Cephalcia* Panzer and isogenotypic with it.
Caenolyda Konow, 1897. K. K. Naturhist. Hofmus. Ann. 12: 15.
Type: *Tenthredo reticulata* Linnaeus. Desig. by Rohwer, 1910.
Liolyda Ashmead, 1898. Canad. Ent. 30: 209.
Type: *Lyda frontalis* Westwood. Orig. desig.

apicalis (Westwood). Md.
Lyda apicalis Westwood, 1874. Thesaurus Ent. Oxon., p. 11, pl. 20, fig. 8. ♂.
Taxonomy: Konow, 1897. K. K. Naturhist. Hofmus. Ann. 12: 239, ♀.

canadensis (Norton). Southeast. Canada.
Lyda canadensis Norton, 1869. Amer. Ent. Soc. Trans. 2: 336. ♂.
Taxonomy: Provancher, 1878. Nat. Canad. 10: 204, ♀.

criddlei (MacGillivray). Man.
Cephaleia criddlei MacGillivray, 1912. Canad. Ent. 44: 296. ♀.

dissipator (MacGillivray). Ont.
Cephaleia dissipator MacGillivray, 1923. Ill. Univ. Bul. 20: 8. ♂.

distincta (MacGillivray). N. H.
Cephaleia distincta MacGillivray, 1912. Canad. Ent. 44: 296. ♂.

fascipennis (Cresson). N. H.
Lyda fascipennis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 31. ♀.
Pamphilius fasciipennis Dalla Torre, 1894. Cat. Hym., v. 1, p. 427. Emend.

frontalis (Westwood). Mass.
Lyda frontalis Westwood, 1874. Thesaurus Ent. Oxon., p. 110, pl. 20, fig. 7. ♂.
Taxonomy: Cresson, 1880. Amer. Ent. Soc. Trans. 8: 46, ♀.

fulviceps (Rohwer). N. J.

Cephaleia fulviceps Rohwer, 1910. Canad. Ent. 42: 90. ♀.

hopkinsi (Rohwer). Ariz.
Cephaleia hopkinsi Rohwer, 1910. Canad. Ent. 42: 217. ♂.

jenseni (MacGillivray). Minn.
Cephaleia jenseni MacGillivray, 1912. Canad. Ent. 44: 297. ♀.

mathematica (Kirby). N. S.
Pamphilius mathematicus Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 348. ♂.

nigropectus (Cresson). Nev.
Lyda nigropectus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 30. ♀.

nortoni (Rohwer). Maine.
Caenolyda nortoni Rohwer, 1910. Canad. Ent. 42: 91. ♀.

ochreipes (Cresson). N. H.
Lyda ochreipes Cresson, 1880. Amer. Ent. Soc. Trans. 8: 30. ♀.

onekama (MacGillivray). Ont.
Caenolyda onekama MacGillivray, 1923. Ill. Univ. Bul. 20: 8. ♀.

punctata (Rohwer). Colo.
Cephaleia punctata Rohwer, 1908. Canad. Ent. 40: 177. ♀.

semidea (Cresson). N. H.
Lyda semidea Cresson, 1880. Amer. Ent. Soc. Trans. 8: 31. ♀.

Genus NEUROTOMA Konow

Neurotoma Konow, 1897. K. K. Naturhist. Hofmus. Ann. 12: 18.
Type: *Tenthredo flaviventris* Linnaeus. Desig. by Rohwer, 1910.
Gongylocorsia Konow, 1897. K. K. Naturhist. Hofmus. Ann. 12: 19.
Type: *Lyda mandibularis* Zaddach. Monob.
Revision: Middlekauff, 1940. Canad. Ent. 72: 202–206.

Larvae feed singly or gregariously in webbed foliage and buds of certain deciduous trees of the family Rosaceae.

crataegi Middlekauff. Ill., Man., Mass., N. Y. Host: *Crataegus succulenta* and *C. Brainerdi.*
Neurotoma crataegi Middlekauff, 1940. Canad. Ent. 72: 202. ♀.

fasciata (Norton). Conn., D. C., Mass., Md., Mo., N. H., N. J., N. Y., Ont., Pa., Que., R. I., Va. Host: Wild cherry, *Prunus serotina.*
Lyda fasciata Norton, 1862. Ent. Soc. Phila. Proc. 1: 200. ♀.
Biology: Pearsall, 1902. Canad. Ent. 34: 214–216.

inconspicua (Norton). B. C., Iowa, Man., Mass., Minn., Mont., Nebr., N. Y., N. Dak., Pa., S. Dak. Host: Plum trees; sand cherries.
Lyda inconspicua Norton, 1869. Amer. Ent. Soc. Trans. 2: 341. ♀.
Lyda rufipes Marlatt, 1896. *In* Williams, S. Dak. Agr. Expt. Sta. Bul. 48: 17. ♀ ♂.
Lyda spoliana Williams, 1896. S. Dak. Agr. Expt. Sta. Bul. 48: 14–17. ♂ ♀. N. syn.
Biology: Severin, 1920. S. Dak. Agr. Expt. Sta. Tech. Bul. 1: 53 pp., 11 figs.

Genus PAMPHILIUS Latreille

Pamphilius Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 303.
Type: *Tenthredo sylvatica* Linnaeus. Monob.
Lyda Fabricius, 1804. Systema Piezatorum, p. 43.
Type: *Tenthredo sylvatica* Linnaeus. Desig. by Curtis, 1831.
Anoplolyda A. Costa, 1894. Prosp. Imen. Ital., v. 3, p. 233.
Type: *Lyda alternans* A. Costa. Desig. by Rohwer, 1910.
Kelidoptera Konow, 1897. K. K. Naturhist. Hofmus. Ann. 12: 20.
Type: *Lyda maculipennis* Stein. Monob.
Bactroceros Konow, 1897. K. K. Naturhist. Hofmus. Ann. 12: 21.
Type: *Tenthredo vafer* Linnaeus. Desig. by Rohwer, 1910.

amplectus (Fabricius). Colo., Ga.

Lyda amplecta Fabricius, 1804. Systema Piezatorum, p. 46.
Lyda insignis Zaddach, 1865. Phys. Ökonom. Gesell. Königsberg. Schr. 6: 179. ♂.
Lyda cavifrons Cresson, 1865. Ent. Soc. Phila. Proc. 4: 246. ♀.

burquei (Provancher). Que.
Lyda burquei Provancher, 1878. Nat. Canad. 10: 204. ♀.

cinctus Harrington. Ont.
Pamphilius cinctus Harrington, 1893. Canad. Ent. 25: 62. ♀.

dentatus MacGillivray. Mass., Conn. Host: Blackberry.
Pamphilius dentatus MacGillivray, 1912. Canad. Ent. 44: 297. ♀ ♂
Biology: Walden, 1912. Conn. (State) Agr. Expt. Sta. Ann. Rpt., pp. 235–240.

excavatus (Norton). Southeast. Canada, Northeast. States.
Lyda excavatus Norton, 1869. Amer. Ent. Soc. Trans. 2: 337. ♂.
Taxonomy: Konow, 1897. K. K. Naturhist. Hofmus. Ann. 12: 244, ♂.

fletcheri MacGillivray. N. B.
Pamphilius fletcheri MacGillivray, 1912. Canad. Ent. 44: 298. ♂ ♀.

fortuitus MacGillivray. Wash.
Pamphilius fortuitus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 27. ♀.

fulvifrons Rohwer. Oreg., Wash.
Pamphilius fulvifrons Rohwer, 1910. Canad. Ent. 42: 218. ♀.

greenei Rohwer. Pa.
Pamphilius greenei Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 273. ♀.

harringtonii (Provancher). Ont.
Lyda Harringtonii Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 17. ♀.

luteicornis (Norton). Southeast. Canada, Northeast. States.
Lyda luteicornis Norton, 1869. Amer. Ent. Soc. Trans. 2: 339. ♀.

multisignatus (Norton). Colo., Nev.
Lyda multisignatus Norton, 1864. Ent. Soc. Phila. Proc. 3: 15. ♀.
Lyda multicincta (!) Norton, 1869. Amer. Ent. Soc. Trans. 2: 332.
Lyda melliventris Cresson, 1880. Amer. Ent. Soc. Trans. 8: 32. ♂.

nigritibialis Rohwer. Sask.
Pamphilius nigritibialis Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 205. ♂.

ocellatus Rohwer. Minn.
Pamphilius ocellatus Rohwer, 1910. Canad. Ent. 42: 218. ♀.

ocreatus (Say). Southeast. Canada, Northeast. and Midwest. States. Host: *Cornus*.
Lyda ocreata Say, 1836. Boston Jour. Nat. Hist. 1: 222. ♀.
Biology: Dyar, 1895. Ent. News 6: 200.

pacificus (Norton). Calif., B. C.
Lyda pacifica Norton, 1869. Amer. Ent. Soc. Trans. 2: 338. ♀.

palachei (Ashmead). Alaska.
Anoplolyda palachei Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 254. ♀.

pallimaculus (Norton). Conn., N. Y., Ont., Que.
Lyda pallimacula Norton, 1869. Amer. Ent. Soc. Trans. 2: 337. ♀.
Lyda pallidimacula Dalla Torre, 1894. Cat. Hym., v. 1, p. 435. Emend.

perplexus (Cresson). Mass.
Lyda perplexa Cresson, 1880. Amer. Ent. Soc. Trans. 8: 31. ♀.

persicum MacGillivray. Conn. Host: Peach.
Pamphilius persicum MacGillivray, 1907. Canad. Ent. 39: 308. ♀.
Biology: Walden, 1907. Conn. (State) Agr. Expt. Sta. Ann. Rpt., pp. 285–300.

plagiatus (Klug). Md., N. J., Pa., Tenn.
Lyda plagiata Klug, 1808. Mag. Gesell. Naturf. Freunde Berlin 2: 278, pl. 7, fig. 6. ♀.
Taxonomy: Norton, 1869. Amer. Ent. Soc. Trans. 2: 336, ♂.

provancheri (Huart). Que.

Lyda provancheri Huart, 1879. Nat. Canad. 11: 148. ♀.

pullatus (Cresson). Mo.
Lyda pullata Cresson, 1880. Amer. Ent. Soc. Trans. 8: 31. ♀.

quebecensis (Provancher). N. Y., Que.
Lyda quebecensis Provancher, 1878. Nat. Canad. 10: 205. ♀.

rileyi (Cresson). Mo., ?Ga.
Lyda rileyi Cresson, 1880. Amer. Ent. Soc. Trans. 8: 32. ♀.

rubi Rohwer. Mich., Ont.
Pamphilius rubi Rohwer, 1910. Canad. Ent. 42: 219. ♀.

rufocinctus (Cresson). Colo.
Lyda rufocinctus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 32. ♂.
Taxonomy: Konow, 1897. K. K. Naturhist. Hofmus. Ann. 12: 241, ♂.

rufofasciatus (Norton). Conn., N. H.
Lyda rufofasciatus Norton, 1869. Amer. Ent. Soc. Trans. 2: 340. ♀.

saevus (Rohwer). Colo.
Anoplolyda saeva Rohwer, 1910. Canad. Ent. 42: 218.

scriptus (Say). Ark., Ga., Minn., N. H.
Tarpa scripta Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2 (App.), p. 312.
Taxonomy: Konow, 1897. K. K. Naturhist. Hofmus. Ann. 12: 245, ♂.

semicinctus (Norton). Va.
Lyda semicincta Norton, 1862. Ent. Soc. Phila. Proc. 1: 144. ♀.

subcavifrons Rohwer. N. Amer.
Pamphilius subcavifrons Rohwer, 1910. Canad. Ent. 42: 219. ♂.

transversus MacGillivray. N. H.
Pamphilius transversa MacGillivray, 1912. Canad. Ent. 44: 297. ♀.

unalatus MacGillivray. N. Y.
Pamphilius unalatus MacGillivray, 1920. Brooklyn Ent. Soc. Bul. 15: 112. ♀.

Superfamily TENTHREDINOIDEA[3]

Family PERGIDAE

Subfamily ACORDULECERINAE

Genus ACORDULECERA Say

Acordulecera Say, 1836. Boston Jour. Nat. Hist. 1: 209.
Type: *Acordulecera dorsalis* Say. Monob.
Acorduleceros Konow, 1898. Ent. Nachr. 24: 250.

The species of this genus are here treated in two lists. The first represents an evaluation of species units based primarily on saw characters; this part is taken from a manuscript key sent to me by the late O. Conde. The second represents species that Conde, because he had insufficient data, was unable to place reliably.

All species of the genus feed on oak, or hickory, or both, judging from known host data. The larvae are external leaf feeders.

dorsalis Say. East. deciduous forest, Tex. to Que.
Acordulecera dorsalis Say, 1836. Boston Jour. Nat. Hist. 1: 209. ♂ ♀.
Acordulecera saginata Provancher, 1882. Nat. Canad. 13: 290. ♀. N. syn.
Acordulecera biclinius Konow, 1898. Ent. Nachr. 24: 253. N. syn.
Acordulecera media MacGillivray, 1908. Canad. Ent. 40: 168. ♀. N. syn.

[3] By Herbert H. Ross, Illinois Natural History Survey, Urbana, Ill.

Acordulecera minima MacGillivray, 1908. Canad. Ent. 40: 168. ♀. N. syn.
Acordulecera maxima MacGillivray, 1908. Canad. Ent. 40: 168. ♀. N. syn.
Acordulecera maura MacGillivray, 1908. Canad. Ent. 40: 168. ♀. N. syn.
Acordulecera marina MacGillivray, 1908. Canad. Ent. 40: 170. ♂. N. syn.
Acordulecera munda MacGillivray, 1908. Canad. Ent. 40: 169. ♀. N. syn.
Acordulecera flavipes Rohwer. 1912. U. S. Natl. Mus. Proc. 43: 250. ♀. N. syn.
Acordulecera foveata Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 247. ♂ ♀. N. syn.
Acordulecera nigritarsis Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 250. ♀. N. syn.
Acordulecera caryae Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 248. ♂ ♀. N. syn.
Acordulecera portiae Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 249. ♀. N. syn.
(?)*Acordulecera meleca* MacGillivray, 1921. Brooklyn Ent. Soc. Bul. 16: 23. ♂.
Acordulecera musta MacGillivray, 1921. Brooklyn Ent. Soc. Bul. 16: 23. ♂. N. syn.

maculata MacGillivray. East. deciduous forest, Ill. to N. Y.
Acordulecera maculata MacGillivray, 1908. Canad. Ent. 40: 169. ♂ ♀.

mellina MacGillivray. Mo. to N. H.
Acordulecera mellina MacGillivray, 1908. Canad. Ent. 40: 169. ♀.
Acordulecera mixta MacGillivray, 1908. Canad Ent. 40: 169. ♂ ♀. N. syn.

minuta MacGillivray. Cent. U. S.
Acordulecera minuta MacGillivray, 1908. Canad Ent. 40: 169. ♀.

Unstudied Species of Acordulecera Say

antennata Rohwer. Va.
Acordulecera antennata Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 246. ♂.

basirufa Rohwer. Fla., Kans.
Acordulecera basirufa Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 250. ♀.

erythrogastra Rohwer. Ga., Fla.
Acordulecera erythrogastra Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 248. ♀.

hicoriae Rohwer. Pa. Host: *Hicoria.*
Acordulecera hicoriae Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 157. ♀.

nigrata Rohwer. N. C., Pa.
Acordulecera nigrata Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 249. ♀.

parva Rohwer, N. J., N. Y.
Acordulecera parva Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 248. ♂.

pellucidus Konow. Tex.
Acorduleceros pellucidus Konow, 1898. Ent. Nachr. 24: 253.

quercus Rohwer. N. Y.? Host: Black Oak.
Acordulecera quercus Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 251. ♀.

scutellata Rohwer. Ala., Kans., Nebr.
Acordulecera scutellata Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 247. ♂ ♀.

Family ARGIDAE

Subfamily ARGINAE

Genus ARGE Schrank

Cryptus Jurine, 1801. Intell. Blatt Litt.-Ztg. Erlangen, v. 1, p. 163. Suppressed by Internatl. Comn. Zool. Nomencl. Op. 135, 1939.
Arge Schrank, 1802. Fauna Boica, p. 209.
Type: *Tenthredo enodis* Linnaeus. Desig. by Rohwer, 1911.
Hylotoma Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 302.

Type: *Tenthredo rosae* Linnaeus. Monob.

Corynia Imhof and Labram, 1836. Ins. Schweiz., p. 23.
Type: *Corynia rosarum* Imhof and Labram. Desig. by Rohwer, 1911.

Acanthoptenos Ashmead, 1898. Canad. Ent. 30: 212.
Type: *Acanthoptenos weithii* Ashmead. Orig. desig.

abdominalis (Leach). Eastern.
Hylotoma abdominalis Leach, 1817. Zool. Misc., v. 3, p. 123. ♀.

clavicornis (Fabricius) complex. A transcontinental form, extremely variable in color, and intergrading between extremes to such an extent that at present it appears to represent only one species. Hosts: *Salix; Betula; Azalea.*
Tenthredo clavicornis Fabricius, 1793. Ent. System., v. 2, p. 108. ♀.
Hylotoma analis Leach, 1817. Zool. Misc., v. 3, p. 123. ♂. N. syn.
Hylotoma McLeayi Leach, 1817. Zool. Misc., v. 3, p. 122. ♀. N. syn.
Hylotoma virescens Klug, 1814. Mag. Gesell. Naturf. Freunde Berlin 6: 296. ♂. N. syn.
Hylotoma mellina Cresson, 1880. Amer. Ent. Soc. Trans. 8: 3. ♀. N. syn.
?*Hylotoma borealis* Kirby, 1882. List Hym. Brit. Mus., v. 1.
?*Hylotoma cyra* Kirby, 1882. List. Hym. Brit. Mus., v. 1.
Acanthoptenos weithii Ashmead, 1898. Canad. Ent. 30: 212. N. syn.
Arge inops Konow, 1906. Ztschr. System. Hym. Dipt. 6: 181. ♂. N. syn.
Hylotoma onerosa MacGillivray, 1923. Psyche 30: 80. ♂ ♀. N. syn.
Hylotoma sparta MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 18. ♂ ♀. N. syn.
Arge criddlei Garlick, 1927. Canad. Ent. 59: 182. ♂ ♀. N. syn.
Arge imitans Garlick, 1927. Canad. Ent. 59: 182. ♂ ♀. N. syn.

coccinea (Fabricius). Eastern.
Hylotoma coccinea Fabricius, 1804. Systema Piezatorum, p. 24.
Hylotoma rubra Klug, 1914. Mag. Gesell. Naturf. Freunde Berlin 6: 299. ♀.

coerulea (Norton). Pa.
Hylotoma coeruleus Norton, 1864. Ent. Soc. Phila. Proc. 3: 5. ♀.

humeralis (Beauvois). Eastern.
Tenthredo humeralis Beauvois, 1805. Ins. Afr. Amer., v. 2, p. 99. ♀.

mentzeliae (Cockerell). N. Mex.
Hylotoma mentzeliae Cockerell, 1898. Ann. and Mag. Nat. Hist. (7) 2: 456.

nigrescens (Rohwer). Nebr.
Hylotoma nigrescens Rohwer, 1909. Canad. Ent. 41: 13. ♂.

pectoralis (Leach). Eastern. Host: *Salix.*
Hylotoma pectoralis Leach, 1817. Zool. Misc., v. 3, p. 124. ♀.
Hylotoma dulciaria Say, 1824. *In* Keating Narr. Long's 2nd Exped., App. p. 314. ♀.
Arge salicis Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 206. ♂ ♀.

rubiginosa (Beauvois). Eastern. Host: *Rhus.*
Tenthredo rubiginosa Beauvois, 1805. Ins. Afr. Amer., v. 2, p. 98. ♀.
Hylotoma miniata Klug, 1814. Mag. Gesell. Naturf. Freunde Berlin 6: 298. ♂. N. syn.
Hylotoma erythrosoma Leach, 1817. Zool. Misc., v. 3, p. 124. ♀.
(?) *Hylotoma scutellata* Lepeletier, 1823. Monog. Tenthred., p. 47.
Hylotoma sphinx Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 68. ♂. N. syn.

sanguinea (Klug). Eastern.
Hylotoma sanguinea Klug, 1914. Mag. Gessell. Naturf. Freunde Berlin 6: 299. ♀.
Hylotoma scutellata Say, 1836. Boston Jour. Nat. Hist. 1: 211. ♀.
Hylotoma grandis Rohwer, 1909. Canad. Ent. 41: 14. ♂. N. syn.

scapularis (Klug). Eastern.
Hylotoma scapularis Klug, 1814. Mag. Gesell. Naturf. Freunde Berlin 6: 298. ♀.
Hylotoma calcanea Say, 1836. Boston Jour. Nat. Hist. 1: 211.
?*Hylotoma xanthothorax* Leach, 1817. Zool. Misc., v. 3, p. 124. ♀.

spiculata (MacGillivray). Ariz.

Hylotoma spiculata MacGillivray, 1907. Canad. Ent. 39: 308. ♀.

Subfamily ATOMACERINAE

Genus ATOMACERA Say

Atomacera Say, 1836. Boston Jour. Nat. Hist. 1: 212.
Type: ***Atomacera debilis*** Say. Monob.
Micrarge Ashmead, 1898. Canad. Ent. 30: 213.
Type: ***Atomacera ruficollis*** Norton. Orig. desig.

debilis Say. Eastern. Host: *Desmodium.*
Atomacera debilis Say, 1836. Boston Jour. Nat. Hist. 1: 212. ♂.
Atomacera ruficollis Norton, 1863. Ent. Soc. Phila. Proc. 3: 6. ♀.
Atomacera desmodii Dyar, 1900. N. Y. Ent. Soc. Jour. 8: 26. ♂ ♀, larva.

decepta Rohwer. Eastern. Host: *Hibiscus.*
Atomacera decepta Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 382. ♀.

Subfamily STERICTIPHORINAE

Genus STERICTIPHORA Billberg

Sterictiphora Billberg, 1820. Enum. Ins. Mus. Billberg, p. 99.
Type: ***Hylotoma furcata*** Fabricius. Monob.
Schizocerus Berthold, 1827. Nat. Fam. Thierr., p. 441.
Type: ***Hylotoma furcata*** Villers. Desig. by Westwood, 1839.
Cyphona Dahlbom, 1835. Conspectus Tenthred., Siricid., Oryssin. Scand., p. 8.
Type: ***Hylotoma furcata*** Villers. Desig. by Rohwer, 1911.

prunivora (Dyar). Eastern. Host: *Prunus.*
Schizocerus prunivorus Dyar, 1897. N. Y. Ent. Soc. Jour. 5: 23.

sericea (Norton). Eastern, and Alta. and Nev.
Schizocerus sericeus Norton, 1867. Amer. Ent. Soc. Trans. 1: 55. ♀.
Schizocera maura Cresson, 1880. Amer. Ent. Soc. Trans. 8: 3. ♂. N. syn.

Subfamily SERICOCERINAE

Genus APROSTHEMA Konow

Aprosthema Konow, 1899. Ent. Nachr. 25: 149.
Type: ***Hylotoma brevicornis*** Fallén. Desig. by Rohwer, 1911.
Lyrola Ross, 1937. Ill. Biol. Monog. 15 (2): 55.
Type: ***Schizocera brunniventris*** Cresson. Orig. desig.

brunniventris (Cresson). Calif., Nev., Oreg. Host: *Hosackia.*
Schizocera brunniventris Cresson, 1880. Amer. Ent. Soc. Trans. 8: 2. ♂ ♀.
Schizocera tristis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 52. ♂ ♀.
Schizocera tristis var. ***fumipennis*** Dyar, 1893. Canad. Ent. 25: 195. ♂ ♀.

Genus NEOPTILIA Ashmead

Neoptilia Ashmead, 1898. Canad. Ent. 30: 213.
Type: ***Neoptilia mexicana*** Ashmead. Orig. desig.
Rhagonyx Konow, 1903. Ztschr. System. Hym. Dipt. 3: 108.
Type: ***Rhagonyx lituratus*** Konow. Monob.

malvacearum (Cockerell). N. Mex. Host: *Malva.*
Nematoneura malvacearum Cockerell, 1894. U. S. Dept. Agr. Insect Life 7: 253. ♂ ♀.

mexicana Ashmead. Tex.
Neoptilia mexicana Ashmead, 1898. Canad. Ent. 30: 213.

Genus PTENUS Kirby

Ptenos Norton, 1872. Amer. Ent. Soc. Trans. 4: 77. Preocc.
Type: ***Ptenos niger*** Norton. Desig. by Rohwer, 1911.

Ptenus Kirby, 1882. List. Hym. Brit. Mus., v. 1, p. 51. New name for *Ptenos* Norton.
Ptenellus Malaise, 1937. Ent. Tidskr. 58: 56.
Type: ***Ptenos nigripectus*** (!) Norton. Orig. desig.

niger (Norton), n. comb. Tex.
Ptenos niger Norton, 1872. Amer. Ent. Soc. Trans. 4: 77. ♂.

nigropectus (Norton), n. comb. Tex.
Ptenos nigropectus Norton, 1872. Amer. Ent. Soc. Trans. 4: 77. ♂.

texanus (Norton), n. comb. Tex.
Ptilia texana Norton, 1869. Amer. Ent. Soc. Trans. 2: 367. ♂ ♀.

Genus SPHACOPHILUS Provancher

Sphacophilus Provancher, 1889. Addit. Corr. Faune Ent. Canada Hym., Sup. p. 427.
Type: ***Sphacophilus crawii*** Provancher. Monob.

abdominalis (Cresson), n. comb. Colo.
Schizocerus abdominalis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 243. ♂.

apios (Ross), n. comb. Ill. Host: *Desmodium canadense* (originally recorded erroneously as *Apios tuberosa*).
Sterictiphora apios Ross, 1933. Ent. Soc. Wash. Proc. 35: 13. ♂ ♀.
Sterictiphora apios form ***atrescens*** Ross, 1933. Ent. Soc. Wash. Proc. 35: 14. ♂ ♀.

cellularis (Say). Eastern, west to Ill. and Tex. Host: *Convolvulus* and *Ipomoea*.
Atomacera cellularis Say, 1835. Boston Jour. Nat. Hist. 1: 213. ♀.
Schizocerus ebenus Norton, 1867. Amer. Ent. Soc. Trans. 1: 55. ♂.
Schizocerus privatus Norton, 1867. Amer. Ent. Soc. Trans. 1: 56. ♀.

crawii Provancher. Western.
Sphacophilus crawii Provancher, 1889. Addit. Corr. Faune Ent. Canada Hym., Sup., p. 427. ♀.

invitus (Cresson), n. comb. Nev.
Schizocera? invita Cresson, 1880. Amer. Ent. Soc. Trans. 8: 3. ♀.

klugii (Leach), n. comb. Ga.
Cryptus Klugii Leach, 1817. Zool. Misc., v. 3, p. 125. ♂ ♀.

nigriceps (Konow), n. comb. Tex.
Brachyphatnus nigriceps Konow, 1906. Ztschr. System. Hym. Dipt. 6: 251.

nortoni (Rohwer), n. comb. Nebr.
Schizocerus nortoni Rohwer, 1909. Canad. Ent. 41: 11. ♂.

plumiger (Klug), n. comb. N. Y.
Hylotoma plumigera Klug, 1814. Mag. Gesell. Naturf. Freunde Berlin 6: 306. ♀.

Genus SOFUS Malaise

Sofus Malaise, 1937. Ent. Tidskr. 58: 137.
Type: ***Schizocera pilicornis*** Holmgren. Orig. desig.
Sterictiphora subg. ***Leston*** Ross, 1937. Ill. Biol. Monog. 15 (2): 54.
Type: ***Schizocerus zabriskiei*** Webster and Malley. Orig. desig.

pilicornis (Holmgren). Argentina to Calif. and N. Y. Host: *Portulaca*.
Schizocera pilicornis Holmgren, 1868. Eug. Resa I, Zool. I, Ins., p. 391. ♂ ♀.
Schizoceros lateralis Konow, 1899. Buenos Aires Mus. Nac. de Hist. Nat. An. 6: 404. ♀.
Schizocerus zabriskiei Webster and Malley, 1900. Canad. Ent. 32: 51. N. syn.
Schizocerus sericeiformis Rohwer, 1908. N. Y. Ent. Soc. Jour. 16: 112. ♂.
Schizocerus lineatus Rohwer, 1909. Canad. Ent. 41: 12. ♀.
Schizocerus collaris Rohwer, 1909. Canad. Ent. 41: 13. ♀.
Schizocerus johnsoni MacGillivray, 1909. Canad. Ent. 41: 403. ♀.

Family CIMBICIDAE

All members of the family are moderate to large in size, and the larvae are robust external leaf feeders.

Genus ZARAEA Leach

Zaraea Leach, 1817. Zool. Misc., v. 3, p. 113.
Type: *Tenthredo fasciata* Linnaeus. Monob..
Abia Leach, 1817. Zool. Misc., v. 3, p. 113.
Type: *Tenthredo sericeus* Linnaeus. Desig. by Curtis, 1825.
Parabia Semenov, 1891. Soc. Ent. Rossica Horae 25: 174.
Type: *Parabia jakowlewi* Semenov. Orig. desig.

The larvae of this genus feed on members of the genus *Lonicera*, and probably also on its close relative *Symphoricarpos*.

americana Cresson. Transcont.
Zaraea americana Cresson, 1880. Amer. Ent. Soc. Trans. 8: 1. ♀.

inflata Norton. Eastern and north central.
Zaraea inflatus Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 151. ♀.
Abia caprifolium Norton, 1867. Amer. Ent. Soc. Trans. 1: 46. ♀.

kennicotti (Norton). Northern.
Abia Kennicotti Norton, 1867. Amer. Ent. Soc. Trans. 1: 47. ♂ ♀.

lonicerae (Linnaeus). N. Y.; introduced from Europe.
Tenthredo lonicerae Linnaeus, 1758. Syst. Nat. ed. 10, p. 559.

Genus TRICHIOSOMA Leach

Trichiosoma Leach, 1817. Zool. Misc., v. 3, p. 108.
Type: *Tenthredo lucorum* Linnaeus. Desig. by Curtis, 1825.

The members of this genus are in need of revision. The listing below indicates only the more obvious synonymy.

aleutianum Cresson. Aleutian Is., Alaksa.
Trichiosoma Aleutiana Cresson, 1880. Amer. Ent. Soc. Trans. 8: 1. ♀.

arcticum Kirby. Arctic Amer.
Trichiosoma arcticum Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 10. ♂.

lanuginosum Norton. Calif.
Trichiosoma lanuginosa Norton, 1867. Amer. Ent. Soc. Trans. 1: 44. ♀.

triangulum Kirby. Transcont. Host: *Prunus*.
Trichiosoma triangulum Kirby, 1837. Fauna Bor.-Amer., v. 4, p. 254.
Abia cerasi Fitch, 1857(56). N. Y. State Agr. Soc. Trans. 16: 385.
Trichiosoma bicolor Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 150. ♂.
Trichiosoma crassum Kirby, 1882. List. Hym. Brit. Mus., v. 1, p. 11. ♀.
(?)*Trichiosoma Taylori* Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 20. ♂ ♀. (Possibly a distinct western form of the species.)
Trichiosoma confusum MacGillivray, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 103. ♂ ♀. N. syn.
Trichiosoma spicatum MacGillivray, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 103. ♂. N. syn.
Trichiosoma confundum MacGillivray, 1923. Canad. Ent. 55: 161. ♀. N. syn.

Genus CIMBEX Olivier

Crabro Geoffrey, 1762. Hist. Ins. Paris, v. 2, p. 261.
Suppressed by Internatl. Comn. Zool. Nomencl. Op. 144, 1943.
Clavellarius Olivier, 1789. Encycl. Meth., Dict. Ins., v. 4, p. 22.
Type: *Tenthredo lutea* Linnaeus. Desig. by Latreille, 1810. Application has been made to the Internatl. Comn. Zool. Nomencl. to set aside this name.

Cimbex Olivier, 1790. Encycl. Meth., Dict. Ins., v. 5, p. 762. N. name for *Clavellarius* Olivier.
Clavellaria Lamarck, 1801. Systeme Anim. Sans Vert., p. 264. Emend.

americana americana Leach. North., from Atlantic to Rocky Mts. Hosts: Trees including *Ulmus*, *Salix*, *Populus*, *Acer*, *Alnus*, and *Tilia*.
Cimbex americana Leach, 1817. Zool. Misc., v. 3, p. 104. ♂.
Cimbex violacea Lepeletier, 1823. Monog. Tenthred., p. 27. ♀.
Cimbex luctifera Klug, 1829. Gesell. Naturf. Freunde Berlin Verh. 1 (2): 85. ♂ ♀.
Cimbex LaPortei Lepeletier, 1833. Soc. Ent. France Ann. 2: 454. ♀.
Cimbex Viardi Lepeletier, 1833. Soc. Ent. France Ann. 2: 454. ♀.
Cimbex ulmi Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 374.
Cimbex Dahlbomi Guerin, 1845. Inconogr. Règne Anim., v. 7 (Ins.), p. 398. ♀.
Cimbex lateralis Guerin, 1845. Inconogr. Règne Anim., v. 7 (Ins.), p. 398. ♀.
Cimbex kirbyi Brullé, 1846. *In* Lepeletier, Hist. Nat. Ins. Hym., v. 4, p. 672. ♀.
Cimbex americana var. ***alba*** Norton, 1867. Amer. Ent. Soc. Trans. 1: 42. ♀.
Cimbex americana var. ***nortoni*** MacGillivray, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 104. ♀.
Crabro americana var. ***rubrosa*** Ross, 1932. Canad. Ent. 64: 250. ♂.

americana pacifica Cresson. Pacific Coast region.
Cimbex pacifica Cresson, 1880. Amer. Ent. Soc. Trans. 8: 51. ♀.

rubida Cresson. Calif., Nev.
Cimbex rubida Cresson, 1880. Amer. Ent. Soc. Trans. 8: 1. ♂ ♀.

semidea Cresson. Mich., N. H., Ont.
Cimbex semidea Cresson, 1880. Amer. Ent. Soc. Trans. 8: 1. ♀.
Cimbex hudsonica Kirby, 1882. List Hym. Brit. Mus. 1: 8. ♀. N. syn.

Family DIPRIONIDAE

Larvae of this family are external feeders on conifers.

Revision: Rohwer, 1918. Ent. Soc. Wash. Proc. 20: 79–90.

Subfamily MONOCTENINAE

Larvae of this subfamily feed on the Cupressaceae.

Genus MONOCTENUS Hartig

Lophyrus subg. ***Monoctenus*** Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 81.
Type: ***Tenthredo juniperi*** Linnaeus. Monob.

The only known host for *Monoctenus* larvae is *Juniperus*.

In the following list some species listed as distinct undoubtedly are synonyms, but it seems better at this time to list these species as possibly valid and await a definitive study before making changes.

fulvus (Norton). Tex., ?Kans., Ill.
Lophyrus fulvus Norton, 1872. Amer. Ent. Soc. Trans. 4: 86. ♀.
?***Lophyrus*** (***Monoctenus***) ***juniperi*** Marlatt, 1888. Kans. Acad. Sci. Trans. 10: 82. Preocc.
Monoctenus unicolor Marlatt, 1890. Ent. Soc. Wash. Proc. 2: 125. N. name for *juniperi* Marlatt.

juniperinus MacGillivray. N. Y.
Monoctenus juniperinus MacGillivray, 1894. Canad. Ent. 26: 328.

melliceps (Cresson). Mass.
Lophyrus melliceps Cresson, 1880. Amer. Ent. Soc. Trans. 8: 26. ♀.

suffusus (Cresson). Mass.

Lophyrus suffusus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 26. ♀.

Genus AUGOMONOCTENUS Rohwer

Augomonoctenus Rohwer, 1918. Ent. Soc. Wash. Proc. 20: 81.
Type: ***Augomonoctenus libocedrii*** Rohwer. Orig. desig.

The genotype remains the only known species in the genus.

libocedrii Rohwer. Calif., Oreg. Host: *Libocedrus decurrens.*
Augomonoctenus libocedrii Rohwer, 1918. Ent. Soc. Wash. Proc. 20: 81. ♀.

Subfamily DIPRIONINAE

Larvae of this subfamily feed on the Pinaceae.

Genus ZADIPRION Rohwer

Neodiprion subg. ***Zadiprion*** Rohwer, 1918. Ent. Soc. Wash. Proc. 20: 83.
Type: ***Diprion grandis*** Rohwer. Orig. desig.
Revision: Middleton, 1931. Ent. Soc. Wash. Proc. 33: 165–170.

The larvae of this genus feed on the species of *Pinus*.

grandis (Rohwer). Nebr. Host: *Pinus ponderosa.*
Diprion grandis Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 208. ♂ ♀.

rohweri (Middleton). Calif., Colo. Host: *Pinus monophylla* and *P. edulis.*
Neodiprion (Zadiprion) rohweri Middleton, 1931. Ent. Soc. Wash. Proc. 33: 166. ♂ ♀.

townsendi (Cockerell). Ariz., N. Mex.
Lophyrus Townsendi Cockerell, 1898. Ann. Mag. Nat. Hist. (ser. 7) 2: 457. ♀.

Genus NEODIPRION Rohwer

Neodiprion Rohwer, 1918. Ent. Soc. Wash. Proc. 20: 83.
Type: ***Lophyrus lecontei*** Fitch. Orig. desig.
Revision: Atwood and Peck, 1943. Canad. Jour. Res., Sect. D, Zool. Sci. 21: 109–144.

The following list was compiled from manuscript notes of the author, and is only tentative as concerns the western species. An excellent treatment of the larvae, adult females, and biology of the southeastern Canadian species is given by Atwood and Peck.

Swainei Group

fabricii (Leach). Eastern. Host: *Pinus rigida.*
Lophyrus Fabricii Leach, 1817. Zool. Misc., v. 3, p. 120. ♀.
Lophyrus pinus-rigida Norton, 1869. *In* Packard, Guide Study Ins., p. 225.
Lophyrus Akhursti Norton, 1869. Amer. Ent. Soc. Trans. 2: 324. ♀. N. syn.
Neodiprion (Neodiprion) exitans Rohwer, 1921. U. S. Natl. Mus. Proc. 59: 93. ♂ ♀. N. syn.

swainei Middleton. Northeastern.
Neodiprion (Neodiprion) swainei Middleton, 1931. Ent. Soc. Wash. Proc. 33: 171. ♂ ♀.

Abietis Group

abietis (Harris). Eastern and North Central. Host: *Picea* sp.
Lophyrus abietis Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 376. Larva.

burkei Middleton. Mont., Wyo. Host: *Pinus.*
Neodiprion (Neodiprion) burkei Middleton, 1931. Ent. Soc. Wash. Proc. 33: 174. ♂ ♀.

Biology: Burke, 1932. U. S. Dept. Agr. Cir. 224: 11–19.

edwardsii (Norton). Calif.
Lophyrus Edwardsii Norton, 1896. Amer. Ent. Soc. Trans. 2: 330. ♂.

fulviceps (Cresson). Nev.
Lophyrus fulviceps Cresson, 1880. Amer. Ent. Soc. Trans. 8: 25. ♀.

gillettei (Rohwer). Colo.
Lophyrus gillettei Rohwer, 1908. N. Y. Ent. Soc. Jour. 16: 113. ♂ ♀.

hypomelas (Rohwer).
Lophyrus hypomelas Rohwer, 1908. N. Y. Ent. Soc. Jour. 16: 113. ♂.

mundus Rohwer. Calif.
Neodiprion (*Neodiprion*) *mundus* Rohwer, 1918. Ent. Soc. Wash. Proc. 20: 86. ♀.

nanulus Schedl. Northeastern.
Neodiprion nanulus Schedl, 1933. Ztschr. f. Angew. Ent. Beihefte 20: 449. Larva.

scutellatus Rohwer. Wash.
Neodiprion (*Neodiprion*) *scutellatus* Rohwer, 1918. Ent. Soc. Wash. Proc. 20: 86. ♀.

sertifer (Geoffroy). Northeastern, west to Ohio; adventive from Europe. Host: *Pinus* sp.
Tenthredo sertifera Geoffroy, 1785. *In* Fourcroy, Ent. Paris., v. 2, p. 378.

tsugae Middleton. Northwestern. Host: *Tsuga heterophylla*.
Neodiprion (*Neodiprion*) *tsugae* Middleton, 1933. Canad. Ent. 65: 77. ♂ ♀.

Lecontei Group

There are many puzzling questions regarding definition of species to be solved in this group. Certain of the species listed below may be either polyphyletic or actually composed of distinct sibling species difficult to identify. The host of this group is *Pinus*.

abbotii (Leach). Ga.
Lophyrus Abbotii Leach, 1817. Zool. Misc., v. 3, p. 120. ♀.

americanus americanus (Leach). Eastern. This species is considered as a group of fairly distinct biological races exhibiting puzzling phenomena. Each "race" may be a distinct species.
Lophyrus americanus Leach, 1817. Zool. Misc., v. 3, p. 120. ♀.
Biology: Hetrick, 1941. Jour. Econ. Ent. 34: 373–377.

americanus banksianae Rohwer. Central.
Neodiprion (*Neodiprion*) *banksianae* Rohwer, 1925. Ent. Soc. Wash. Proc. 27: 115. ♂ ♀.
Neodiprion (*Neodiprion*) *ontarioensis* Middleton, 1933. Canad. Ent. 65: 83. ♀.

americanus dyari Rohwer. Eastern and central.
Neodiprion (*Neodiprion*) *dyari* Rohwer, 1918. Ent. Soc. Wash. Proc. 20: 85. ♂ ♀.
Neodiprion (*Neodiprion*) *maura* Rohwer, 1918. Ent. Soc. Wash. Proc. 20: 89. ♂ ♀.

americanus pratti (Dyar). Va.
Lophyrus pratti Dyar, 1899. Ent. Soc. Wash. Proc. 4: 262. ♀.

compar (Leach). Eastern, Ga. to Ont.
Lophyrus compar Leach, 1817. Zool. Misc., v. 3, p. 120. ♀.
Lophyrus lateralis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 25. ♀. N. syn.
Neodiprion lanielensis Peck, 1943. Canad. Jour. Res. Sect. D, Zool. Sci. 21: 115. ♂ ♀. N. syn.

insularis (Cresson). Cuba.

Lophyrus insularis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 1. ♂ ♀.

lecontei (Fitch). Eastern and central.
Lophyrus Lecontei Fitch, 1858 (1857). N. Y. State Agr. Soc. Trans. 17: 744.
Biology: Middleton, 1921. Jour. Agr. Res. 20: 741–760.

pinetum (Norton). Eastern and central.
Lophyrus pinetum Norton, 1869. Amer. Ent. Soc. Trans. 2: 328. ♀.

rileyi (Cresson). Eastern, Fla. to Ont., and central.
Lophyrus rileyi Cresson, 1880. Amer. Ent. Soc. Trans. 8: 25. ♀.
Neodiprion (Neodiprion) eximina Rohwer, 1921. U. S. Natl. Mus. Proc. 59: 92. ♀. N. syn.
Neodiprion (Neodiprion) nigroscutum Middleton, 1933. Canad. Ent. 65: 80. ♀. N. syn.
Neodiprion (Neodiprion) ferrugineum Middleton, 1933. Canad. Ent. 65: 82. ♀.
Neodiprion flemingi Peck, 1943. Canad. Jour. Res. Sect. D, Zool. Sci. 21: 121. N. syn.

virginiana Rohwer. Eastern.
Neodiprion (Neodiprion) virginiana Rohwer, 1918. Ent. Soc. Wash. Proc. 20:87. ♂ ♀.
Neodiprion (Neodiprion) affinis Rohwer, 1918. Ent. Soc. Wash. Proc. 20: 88. ♂ ♀. N. syn.
Neodiprion (Neodiprion) rugifrons Middleton, 1933. Canad. Ent. 65: 79. ♀. N. syn.
Neodiprion dubiosus Schedl, 1933. Ztschr. f. Angew. Ent. Beihefte 20: 449. Larva.

Genus DIPRION Schrank

Larvae of this genus feed on various species of *Pinus*.

Subgenus DIPRION Schrank

Pteronus Jurine, 1801. Intell. Blatt Litt.-Ztg. Erlangen, v. 1, p. 163. Suppressed by Internatl. Comn. Zool. Nomencl. Op. 157, 1945.
Diprion Schrank, 1802. Fauna Boica, v. 2, p. 209.
Type: *Tenthredo pini* Linnaeus. Desig. by Rohwer, 1911.
Lophyrus Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 302. Preocc.
Type: *Tenthredo pini* Linnaeus.
Anachoreta Gistel, 1848. Naturgesch. Thierr. f. höh. Schul., p. 9. N. name for *Lophyrus*.
Cristiger Gistel, 1848. Naturgesch. Thierr. f. höh. Schul., p. 144.
Type: *Tenthredo pini* Linnaeus. Monob.

similis (Hartig). Eastern; adventive from Europe.
Lophyrus similis Hartig, 1834. Forstl. Convers.-Lex., p. 987 b.
Biology: Middleton, 1923. U. S. Dept. Agr. Bul. 1182: 1–21.

Subgenus GILPINIA Benson

Gilpinia Benson, 1939. Bull. Ent. Res. 30 (3): 341.
Type: *Lophyrus polytomus* Hartig. Orig. desig.

frutetorum (Fabricius). Eastern and central; adventive from Europe.
Tenthredo frutetorum Fabricius, 1793. Systema Ent., v. 2, p. 111.

hercyniae (Hartig). Eastern; adventive from Europe.
Lophyrus Hercyniae Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 123.
Biology: Balch, 1936. Canad. Ent. 68: 23–31.—Balch and Bird, 1944. Sci. Agr. 25: 65–80.
Taxonomy: Smith, 1941. Sci. Agr. 21: 245–305.—Reeks, 1941. Canad. Ent. 73: 177–188.—Forster, 1949. Canad. Ent. 81: 112–113.

Family TENTHREDINIDAE

Subfamily SELANDRIINAE

Tribe STRONGYLOGASTERINI

Members of this tribe feed exclusively on ferns.

Genus ERIOCAMPIDEA Ashmead

Eriocampidea Ashmead, 1898. Canad. Ent. 30: 256.
Type: ***Eriocampidea arizonensis*** Ashmead. Orig. desig.
Cockerellonis MacGillivray, 1908. Canad. Ent. 40: 365.
Type: ***Cockerellonis occidentalis*** MacGillivray. Orig. desig.

arizonensis Ashmead. Ariz., N. Mex.
Eriocampidea arizonensis Ashmead, 1898. Canad. Ent. 30: 256.
Cockerellonis occidentalis MacGillivray, 1908. Canad. Ent. 40: 365.

Genus HEMITAXONUS Ashmead

Hemitaxonus Ashmead, 1898. Canad. Ent. 30: 311.
Type: ***Taxonus dubitatus*** Norton. Orig. desig.
Epitaxonus MacGillivray, 1908. Canad. Ent. 40: 365.
Type: ***Taxonus albido-pictus*** Norton. Orig. desig.

albido-pictus (Norton). East. and cent. No. Amer. Host: *Osmunda.*
Taxonus albido-pictus Norton, 1868. Amer. Ent. Soc. Trans. 2: 213. ♂ ♀.
Taxonus amicus Norton, 1868. Amer. Ent. Soc. Trans. 2: 213. ♂ ♀.
Hemitaxonus rufopectus Rohwer, 1910. U. S. Natl. Mus. Proc. 38: 204. ♀.

dubitatus (Norton). East. and cent. No. Amer. Host: *Osmunda.*
Taxonus dubitatus Norton, 1862. Boston Soc. Nat. Hist. Proc. 9: 119. ♂ ♀.

multicinctus Hall. Ohio. Host: *Athyrium thelypteroides.*
Hemitaxonus multicinctus Hall, 1917. Ent. Soc. Wash. Proc. 19: 28. Larva

Genus STRONGYLOGASTER Dahlbom

Strongylogaster Dahlbom, 1835. Conspectus Tenthred., Siricid., Oryssin. Scand., p. 13.
Type: ***Tenthredo cingulata*** Fabricius. Desig. by MacGillivray, 1908.
Thrinax Konow, 1885. Wien. Ent. Ztg. 4: 19.
Type: ***Strongylogaster contigua*** Konow. Desig. by MacGillivray, 1908.
Pseudotaxonus A. Costa, 1894. Prosp. Imen. Ital., p. 157.
Type: ***Tenthredo filicis*** Klug. Monob.
Polystichophagus Ashmead, 1898. Canad. Ent. 30: 310.
Type: ***Tenthredo filicis*** Klug. Orig. desig.
Prototaxonus Rohwer, 1910. Canad. Ent. 42: 49.
Type: ***Prototaxonus typicus*** Rohwer. Monob.

distans Norton. Western.
Strongylogaster distans Norton, 1868. Amer. Ent. Soc. Trans. 2: 220. ♀.
Strongylogaster pacificus MacGillivray, 1893. Canad. Ent. 25: 241. ♂ ♀. N. syn.

impressatus Provancher. Northeastern, west to Ill.
Strongylogaster impressatus Provancher, 1878. Nat. Canad. 10: 170. ♀.
?***Strongylogaster luctuosus*** Provancher, 1885. Addit. Corr. Faune Ent. Canada Hym., p. 12. ♀.
?***Thrinax pullatus*** MacGillivray, 1921. Psyche 28: 34. ♂.

melanogaster Rohwer. Fla.
Strongylogaster melanogaster Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 397. ♂.

multicinctus Norton. Eastern, west to Ill.
Strongylogaster multicinctus Norton, 1862. Ent. Soc. Phila. Proc. 1: 143. ♀.
Strongylogaster annulosus Norton, 1868. Amer. Ent. Soc. Trans. 2: 211. ♀. N. syn.
Strongylogaster longulus Norton, 1868. Amer. Ent. Soc. Trans. 2: 216. ♂. N. syn.
Strongylogaster alboannulatus Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 237. ♀. N. syn.
Strongylogaster annulosus var. *cingulescens* Ross, 1932. Canad. Ent. 64: 250. ♂ ♀. N. syn.

politus Cresson. Northeastern.
Strongylogaster politus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 20. ♀.

remotus Rohwer. Pa.
Strongylogaster remotus Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 237. ♀.

rufescens (Norton). Maine.
Allantus rufescens Norton, 1860. Boston Jour. Nat. Hist. 7: 245. ♀.

rufigaster (Kincaid). Western, Alaska to B. C.
Paraselandria rufigastra Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 346. ♀.

soriculatipes Cresson. Northeastern, west to Mich.
Strongylogaster soriculatipes Cresson, 1880. Amer. Ent. Soc. Trans. 8: 20. ♀.
Strongylogaster soriculatus Provancher, 1883. Faune Ent. Canada, Hym., v. 2, p. 745. ♀.

tacitus (Norton). Eastern, west to Ill.
Allantus tacitus Norton, 1860. Boston Jour. Nat. Hist. 7: 246. ♂ ♀.
?*Strongylogaster tuberculiceps* Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 396. ♀.

tibialis Cresson. Western, B. C. to Calif.
Strongylogaster tibialis Cresson, 1880. Amer. Ent. Soc. Trans.. 8: 19. ♀.
Selandria marginata Provancher, 1883. Addit. Corr. Faune Ent. Canada Hym., p. 8. ♀. N. syn.
Strongylogaster primativus MacGillivray, 1893. Canad. Ent. 25: 241. ♀. N. syn.
Protataxonus typicus Rohwer. 1910. Canad. Ent. 42: 50. ♂ ♀. N. syn.

unicus Norton. Eastern.
Strongylogaster unicus Norton, 1862. Boston Soc. Nat. Hist. Proc. 9: 120. ♀.

Genus ANEUGMENUS Hartig

Subgenus ANEUGMENUS Hartig

Aneugmenus Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 253.
Type: *Tenthredo (Emphytus) coronata* Klug. Monob.
Polyselandria MacGillivray, 1914. Canad. Ent. 46: 104.
Type: *Selandria floridana* MacGillivray. Orig. desig.
Revision: Ross, 1930. Canad. Ent. 62: 184–189.

flavipes (Norton). East. No. Amer. to Mich. and Ill.
Selandria flavipes Norton, 1862. Boston. Soc. Nat. Hist. Proc. 7: 222. ♀ ♂.
Selandria floridana MacGillivray, 1895. Canad. Ent. 27: 281. ♂.
Aneugmenus flavitarsis Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 390. ♀.
Aneugmenus flavipes occidentalis Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 390. ♀.
Selandria (Aneugmenus) flavipes var. *floridella* Ross, 1930. Canad. Ent. 62: 189. ♀.

stramineipes (Klug). B. C. Introduced from Europe.
Tenthredo stramineipes Klug, 1814. Mag. Gesell. Naturf. Freunde Berlin 8: 75. ♀.
Selandria urbis Ross, 1932. Canad. Ent. 62: 186. ♀.

Subgenus STROMBOCERIDEA Rohwer

Stromboceros subg. *Stromboceridea* Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 392.
Type: *Stromboceros pilosulus* Rohwer. Orig. desig.

nigricans (Norton). Ariz.; Mexico.
Strongylogaster nigricans Norton, 1868. Amer. Ent. Soc. Trans. 2: 223. ♂ ♀.
Selandria curialis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 15. ♀. N. syn.
Stromboceros (Eustromboceros) leucostomus Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 395. ♀. N. syn.

Subgenus EUSTROMBOCEROS Rohwer

Stromboceros subg. *Eustromboceros* Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 394.
Type: *Stromboceros melanopterus* Rohwer. Orig. desig.

Unidentified species. Ariz.

Tribe SELANDRIINI

Species of this tribe feed on grasses.

Genus SELANDRIA Leach

Selandria Leach, 1817. Zool. Misc., v. 3, p. 126.
Type: *Tenthredo serva* Fabricius. Desig. by Brullé, 1846.
Coryna Lepeletier and Serville, 1828. Encycl. Meth., Dict. Ins., v. 10, p. 569.
Type: *Tenthredo scapularis* Lepeletier and Serville. Desig. by Rohwer, 1911.
Paraselandria Ashmead, 1898. Canad. Ent. 30: 255.
Type: *Selandria flavans* Klug. Orig. desig.
Selandridea Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 388.
Type: *Selandridea vanduzeei* Rohwer. Orig. desig.
Pseudoselandria MacGillivray, 1914. Canad. Ent. 46: 103.
Type: *Pseudoselandria oxalata* MacGillivray. Monob.

decolorata Cresson. Colo.
Selandria decolorata Cresson, 1880. Amer. Ent. Soc. Trans. 8: 15. ♂.

vanduzeei (Rohwer). Northeast. and north cent. No. Amer.
Selandridea vanduzeei Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 388. ♂ ♀.
Pseudoselandria oxalata MacGillivray, 1914. Canad. Ent. 46: 103. ♀.

Tribe ADELESTINI

Genus ADELESTA Ross

Adelesta Ross, 1937. Ill. Biol. Monog. 15 (2): 68.
Type: *Selandria nova* Norton. Orig. desig.

nova (Norton). Maine, Que.
Selandria nova Norton, 1867. Amer. Ent. Soc. Trans. 1: 254. ♀.

Subfamily DOLERINAE

Hosts for this subfamily include sedges, grasses, and *Equisetum*.

Genus DOLERUS Panzer

Revision: Ross, 1929. Ill. Biol. Monog. 12 (3): 1–116.—Ross, 1935. Ent. Soc. Wash Proc. 37: 88–93.

Subgenus DOLERUS Panzer

Dolerus Panzer, 1801. Faunae Ins. German., heft 82, pl. 11.

Type: ***Dolerus pedestris*** Panzer. Monob.

Dosytheus Leach, 1817. Zool. Misc., v. 3, p. 127.
Type: ***Tenthredo eglanteriae*** Fabricius. Desig. by Brullé, 1846.

Unicolor Group

borealis MacGillivray. Idaho, Oreg., Wash.
Dolerus borealis MacGillivray, 1893. Canad. Ent. 25: 238. ♀.
Dolerus nominatus MacGillivray, 1923. Insecutor Inscitiae Menstruus 11: 34. ♀.

illini Ross. Eastern, northwestward to Alta.
Dolerus illini Ross, 1929. Ill. Biol. Monog. 12 (3): 39. ♀ ♂.
Dolerus illini var. ***rufilobus*** Ross, 1929. Ill. Biol. Monog. 12 (3): 41. ♂. N. syn.

nativus MacGillivray. Colo., Oreg.
Dolerus nativus MacGillivray, 1923. Insecutor Inscitiae Menstruus 11: 32. ♂
Dolerus nectareus MacGillivray, 1923. Insecutor Inscitiae Menstruus 11: 33. ♂.

neocollaris narratus MacGillivray. Western.
Dolerus narratus MacGillivray, 1923. Insecutor Inscitiae Menstruus 11: 65. ♂ ♀.
Dolerus nocuus MacGillivray, 1923. Insecutor Inscitiae Menstruus 11: 34.

neocollaris neocollaris MacGillivray. North. U. S. , Canada.
Dolerus neocollaris MacGillivray, 1908. Canad. Ent. 11: 127. ♂ ♀.
Dolerus refugus MacGillivray, 1908. Canad. Ent. 11: 127.

tectus MacGillivray. Conn., Mass., Mich., S. Dak.
Dolerus tectus MacGillivray, 1914. Canad. Ent. 66: 104. ♂ ♀.

unicolor (Beauvois). East. and cent. U. S. and southeast. Canada.
Tenthredo unicolor Beauvois, 1805. Ins. Afr. Amer., p. 97. ♂.
Tenthredo thoracinus Beauvois, 1805. Ins. Afr. Amer., p. 97. ♀.
Dolerus thoracicus Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 230.
Dolerus arvensis Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2 (App.), p. 319. ♀.

wanda Ross. Ohio.
Dolerus wanda Ross, 1935. Ent. Soc. Wash. Proc. 37: 91. ♀.

Sericeus Group

kennedyi Ross. Ohio.
Dolerus kennedyi Ross, 1935. Ent. Soc. Wash. Proc. 37: 90. ♀.

sericeus centralis Ross. Ill.
Dolerus sericeus centralis Ross, 1929. Ill. Biol. Monog. 12 (3): 46. ♂ ♀.

sericeus neosericeus MacGillivray. Northeastern.
Dolerus neosericeus MacGillivray, 1908. Canad. Ent. 40: 125. ♀ ♂.
Dolerus necosericeus(!) MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 13.

sericeus parasericeus MacGillivray. N. Y., B. C.
Dolerus parasericeus MacGillivray, 1908. Canad. Ent. 40: 125. ♂ ♀.
Dolerus polysericeus MacGillivray, 1908. Canad. Ent. 40: 125.

sericeus sericeus Say. North. U. S., Canada.
Dolerus sericeus Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2 (App.), p. 320. ♀.
Dolerus colosericeus MacGillivray, 1908. Canad. Ent. 40: 125.
Dolerus monosericeus MacGillivray, 1908. Canad. Ent. 40: 126.

Collaris Group

abdominalis (Norton). Eastern, west to Kans.
Dosytheus abdominalis Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 153 ♂ ♀.

agcistus MacGillivray. North. U. S., Canada.
Dolerus agcistus MacGillivray, 1908. Canad. Ent. 40: 129. ♀.

bicolor (Beauvois). North. U. S., Canada.
Tenthredo bicolor Beauvois, 1805. Ins. Afr. Amer., p. 96. ♀.

clypealis Ross. Rocky Mt. region.
Dolerus clypealis Ross, 1929. Ill. Biol.Monog. 12 (3): 50. ♀.
Dolerus clypealis var. *nigrilabris* Ross, 1929. Ill. Biol. Monog. 12 (3): 51. ♀.

collaris Say. Transcont., north. U. S. and south. Canada.
Dolerus collaris Say, 1823. West. Quart. Rptr. 2: 720. ♀.
Dolerus collaris var. *erebus* Ross, 1929. Ill. Biol. Monog. 12 (3): 55. ♀.
Dosytheus maculicollis Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 153. ♀.
Dolerus icterus MacGillivray, 1908. Canad. Ent. 40: 127. ♀.

distinctus Norton. Calif., Oreg.
Dolerus distinctus Norton, 1872. Amer. Ent. Soc. Trans. 4: 82. ♀.

eurybis Ross. Transcont., north. U. S., Canada.
Dolerus eurybis Ross, 1929. Ill. Biol. Monog. 12 (3): 65. ♂ ♀.

idahoensis Ross. Idaho.
Dolerus idahoensis Ross, 1929. Ill. Biol. Monog. 12 (3): 63. ♀.

interjectus Ross. Calif., Idaho, Wash.
Dolerus interjectus Ross, 1929. Ill. Biol. Monog. 12 (3): 63. ♂ ♀.

moramus Ross. Colo., Ill., Minn., N. Y.
Dolerus moramus Ross, 1929. Ill. Biol. Monog. 12 (3): 62. ♂ ♀.

neoagcistus MacGillivray. Eastern, west to Nebr.
Dolerus neoagcistus MacGillivray, 1923. Brooklyn Ent. Soc. Bul. 18: 55. ♀.
Dolerus neostugnus MacGillivray, 1923. Brooklyn Ent. Soc. Bul. 18: 55.

nortoni Ross. Ill., Md., Mass., Mich., N. Y., Ont.
Dolerus nortoni Ross, 1929. Ill. Biol. Monog. 12 (3): 51. ♂ ♀.
Dolerus nortoni var. *nigritella* Ross, 1929. Ill. Biol. Monog. 12 (3): 53. ♀.

osagensis Ross. N. J., Okla.
Dolerus osagensis Ross, 1935. Ent. Soc. Wash. Proc. 37: 89. ♂ ♀.

piercei Rohwer. Kans.
Dolerus piercei Rohwer, 1909. Canad. Ent. 41: 10. ♀.

salmani Ross. Calif.
Dolerus salmani Ross, 1935. Ent. Soc. Wash. Proc. 37: 88. ♂ ♀.

versa Norton. East. U. S.
Dolerus versa Norton, 1867. Amer. Ent. Soc. Trans. 1: 239. ♂ ♀.

Similis Group

aprilis (Norton). Northern, west to Colo.
Dosytheus aprilis Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 152. ♀.
Dolerus dysporus MacGillivray, 1908. Canad. Ent. 40: 128.
Dolerus nocivus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 12. ♀. N. syn.

apriloides MacGillivray. Northeastern, west to Man.
Dolerus apriloides MacGillivray, 1908. Canad. Ent. 40: 126.

coloradensis Cresson. Colo., Mont., N. Mex., Wyo.
Dolerus coloradensis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 11. ♂ ♀.

elderi Kincaid. North. U. S., Canada and Alaska.
Dolerus elderi Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 359. ♂ ♀.
Dolerus cohaesus MacGillivray, 1908. Canad. Ent. 40: 128. ♀.
Dolerus nutricius MacGillivray, 1923. Canad. Ent. 55: 159. ♂.
Loderus acriculus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 20. ♀.
Dolerus nyctelius MacGillivray, 1923. N. Y. Ent. Soc. Jour. 30: 163. ♂.
Dolerus nemorosus MacGillivray, 1923. N. Y. Ent. Soc. Jour. 30: 164. ♀.
Dolerus elderi var. *auraneus* Ross, 1929. Ill. Biol. Monog. 12 (3): 69. ♂ ♀. N. syn.
Dolerus elderi var. *rubicanus* Ross, 1929. Ill. Biol. Monog. 12 (3): 70. ♂ ♀. N. syn.
Dolerus elderi var. *melanus* Ross, 1929. Ill. Biol. Monog. 12 (3): 70. ♂ ♀.

nasutus MacGillivray. Western.

Dolerus nasutus MacGillivray, 1923. Canad. Ent. 55: 65. ♀.
Dolerus nugatorius MacGillivray, 1923. Canad. Ent. 55: 66.
Dolerus novellus MacGillivray, 1923. Canad. Ent. 55: 67.

similis nescius MacGillivray. Western.
Dolerus nescius MacGillivray, 1923. Univ. Ill. Bul. 20 (50): 12. ♀.

similis similis (Norton). Transcont., north to Alaska.
Dosytheus similis Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 152. ♀.
Dolerus tibialis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 52. ♂. N. syn.
Dolerus conjugatus MacGillivray, 1908. Canad. Ent. 40: 128.
Dolerus plesius MacGillivray, 1908. Canad. Ent. 40: 129.
Dolerus inspectus MacGillivray, 1908. Canad. Ent. 40: 128.
Dolerus stugnus MacGillivray, 1908. Canad. Ent. 40: 129.
Dolerus acritus MacGillivray, 1908. Canad. Ent. 40: 130.
Dolerus simulans Rohwer, 1909. Canad Ent. 41: 10. ♀. N. syn.
Dolerus inspiratus MacGillivray, 1914. Canad. Ent. 46: 105.
Dolerus nefastus MacGillivray, 1923. Canad. Ent. 55: 66.
Dolerus nicaeus MacGillivray, 1923. Canad. Ent. 55: 68. N. syn.
Dolerus novicius MacGillivray, 1923. Canad. Ent. 55: 67. ♀. N. syn.
Dolerus nummarius MacGillivray, 1923. Canad. Ent. 55: 159. ♀. N. syn.
Dolerus nummatus MacGillivray, 1923. Canad. Ent. 55: 159.
Dolerus nervosus MacGillivray, 1923. Insecutor Inscitiae Menstruus 11: 31. N. syn.
Dolerus nimbosus MacGillivray, 1923. Insecutor Inscitiae Menstruus 11: 33.
Dolerus necessarius MacGillivray, 1923. Insecutor Inscitiae Menstruus 11: 35.
Dolerus similis var. ***conjectus*** Ross, 1929. Ill. Biol. Monog. 12: 80. ♀. N. syn.
Dolerus similis var. ***nordanus*** Ross, 1929. Ill. Biol. Monog. 12: 80. ♂ ♀. N. syn.
Dolerus similis var. ***fumatus*** Ross, 1929. Ill. Biol. Monog. 12: 81. ♂ ♀. N. syn.

tejoniensis (Norton). Calif., Nev., N. Mex., Utah.
Dosytheus tejoniensis Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 154. ♀.
Dolerus coccinifera Norton, 1872. Amer. Ent. Soc. Trans. 4: 82.
Dolerus coccinifer Dalla Torre, 1894. Cat. Hym., v. 1, p. 4. Emend.

yukonensis Norton. Alta., Alaska.
Dolerus similis var. ***yukonensis*** Norton, 1872. Amer. Ent. Soc. Trans. 4: 82. ♂.
Dolerus nuntius MacGillivray, 1923. Canad. Ent. 55: 158.
Dolerus nundinus MacGillivray, 1923. Canad. Ent. 55: 159.

Gessneri Group

frisoni Ross. Ill.
Dolerus frisoni Ross, 1929. Ill. Biol. Monog. 12 (3): 91. ♂.

gessneri André. Transcont., north. U. S., north to Alaska; holarctic.
Dolerus gessneri André, 1880. Species Hym. Europe, v. 1, p. 273.
Dolerus neoaprilis MacGillivray, 1908. Canad. Ent. 40: 126. ♀. N. syn.
Dolerus konowi MacGillivray, 1914. Canad. Ent. 46: 106. N. syn.
Dolerus numerosus MacGillivray, 1923. Canad. Ent. 55: 67. N. syn.
Dolerus nivatus MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 164. N. syn.
Dolerus nidulus MacGillivray, 1923. Insecutor Inscitiae Menstruus 11: 31. N. syn.

Subgenus LODERUS Konow

Loderus Konow, 1890. Deut. Ent. Ztschr. 34: 240.
Type: ***Tenthredo pratorum*** Fallén. Orig. desig.

acidus (MacGillivray). Northeastern.
Loderus acidus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 20. ♂ ♀.

albifrons (Norton). Transcont.
Dosytheus apricus var. ***albifrons*** Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 152. ♀.
Dolerus minusculus MacGillivray, 1908. Canad. Ent. 40: 127.

Loderus accuratus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 19.

apricus (Norton). Eastern, west to Tex. and Alta.
Dosytheus apricus Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 152. ♀.
Dolerus luctatus MacGillivray, 1908. Canad. Ent. 40: 127.
Dolerus femur-rubrum Rohwer, 1909. Canad. Ent. 41: 9.
Loderus albifrons MacGillivray, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 76. Misdet.
Loderus acerbus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 19.
Loderus alticinctus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 20. N. syn.
Loderus ancisus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 21. N. syn.

napaeus MacGillivray. Calif., Oreg., Wash.
Loderus niger Rohwer, 1910. Canad. Ent. 42: 49. ♂ ♀. Preocc.
Dolerus napaeus MacGillivray, 1923. Canad. Ent. 55: 65. ♀.
Dolerus nepotulus MacGillivray, 1923. Canad. Ent. 55: 68. ♂.
Dolerus nauticus MacGillivray, 1923. Insecutor Inscitiae Menstruus 11: 35. ♀.

Subfamily SUSANINAE

Genus SUSANA Rohwer and Middleton

Susana Rohwer and Middleton, 1932. Ent. Soc. Wash. Proc. 34: 93.
Type: ***Susana cupressi*** Rohwer and Middleton. Monob.

cupressi Rohwer and Middleton. Calif. Host: *Cupressus*.
Susana cupressi Rohwer and Middleton, 1932. Ent. Soc. Wash. Proc. 34: 94. ♂ ♀.

juniperi (Rohwer). N. Mex. Host: *Juniperus*.
Platycampus juniperi Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 386. ♀.

Subfamily HETERARTHRINAE

Tribe CALIROINI

Here belong sluglike species feeding externally on leaves.

Genus ENDELOMYIA Ashmead

Endelomyia Ashmead, 1898. Canad. Ent. 30: 259.
Type: ***Monostegia rosae*** Harris. Orig. desig.

aethiops (Fabricius). Widespread; introduced from Europe. Host: Wild and cultivated roses.
Tenthredo aethiops Fabricius, 1781. Species Insectorum, v. 1, p. 416.
Selandria rosae Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 380.

Genus CALIROA O. Costa

Caliroa O. Costa, 1859. Fauna del Regno di Napoli, Imen., pt. 3, p. 59.
Type: ***Caliroa sebetia*** O. Costa. Monob.
Eriocampoides Konow, 1890. Deut. Ent. Ztschr., p. 239.
Type: ***Tenthredo limacina*** Retzius. Desig. by MacGillivray, 1909.
Periclistoptera Ashmead, 1898. Canad. Ent. 30: 255.
Type: ***Monostegia alba*** Norton. Orig. desig.

Cerasi Group

amygdalina Rohwer. La. Host: Peach.
Caliroa (Eriocampoidea) amygdalina Rohwer, 1911. Ent. News 22: 263.

cerasi (Linnaeus). Cosmopolitan. Host: Many Rosaceae, including pear and cherry.
Tenthredo cerasi Linnaeus, 1758. Syst. Nat., ed. 10, p. 557.
Tenthredo limacina Retzius, 1783. Genera et Species Insectorum, p. 73.
Tenthredo cerasi Peck, 1799. Mass. Agr. Rpt., p. 9.

Caliroa lacinata MacGillivray, 1909. Canad. Ent. 41: 357. ♀. N. syn.
Caliroa laudata MacGillivray, 1909. Canad. Ent. 41: 356. ♀. N. syn.

Fasciata Group

This group is in need of revision; the following is a list of names without attempt to express species units or synonymy.

castaneae (Rohwer). Va. Host: *Castanea dentata.*
Eriocampoides castaneae Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 152. ♀.

fasciata (Norton). Mass.
Selandria fasciatus Norton, 1864. Ent. Soc. Phila. Proc. 3: 9. ♀.

labrata MacGillivray. Calif.
Caliroa labrata MacGillivray, 1909. Canad. Ent. 41: 360. ♂.

lata MacGillivray. N. Y.
Caliroa lata MacGillivray, 1909. Canad. Ent. 41: 361. ♀.

lineata MacGillivray. Mo.
Caliroa lineata MacGillivray, 1909. Canad. Ent. 41: 350. ♀.

liturata MacGillivray. Fla.
Caliroa liturata MacGillivray, 1909. Canad. Ent. 41: 349. ♀.

lobata MacGillivray. N. Y.
Caliroa lobata MacGillivray, 1909. Canad. Ent. 41: 355. ♀.

lorata MacGillivray. Mass.
Caliroa lorata MacGillivray, 1909. Canad. Ent. 41: 355. ♀.

loricata MacGillivray. Mo.
Caliroa loricata MacGillivray, 1909. Canad. Ent. 41: 351. ♀.

lunata MacGillivray. N. Y.
Caliroa lunata MacGillivray, 1909. Canad. Ent. 41: 353. ♀.

obsoleta (Norton). Eastern.
Selandria obsoleta Norton, 1867. Amer. Ent. Soc. Trans. 1: 254. ♀.

quercus-alba (Cresson). Eastern. Host: *Quercus.*
Selandria quercus alba Norton, 1867. Amer. Ent. Soc. Trans. 1: 258. ♂ ♀. Invalid, not a binomial.
Selandria quercus-alba Cresson, 1880. Amer. Ent. Soc. Trans. 8: 60. Correction of *quercus alba* Norton.
Eriocampoides quercus Konow, 1905. Gen. Ins., v. 29, p. 74. Correction of *quercus alba* Norton.

quercus-coccineae (Dyar). Mass.
Monostegia quercus-coccineae Dyar, 1894. Canad. Ent. 26: 42. ♀.

Tribe HETERARTHRINI

All members of this tribe are leaf miners.

Genus HETERARTHRUS Stephens

Phyllotoma Fallén, 1829. Monog. Tenthred. Suec., p. 25. Preocc.
Type: ***Phyllotoma vagans*** Fallén. Desig. by Rohwer, 1911.
Heterarthrus Stephens, 1835. Illus. Brit. Ent., v. 7, p. 94.
Type: (***Decatria fuscipennis*** Stephens)=***Tenthredo*** (***Emphytus***) ***ochropoda*** Klug. Orig. desig.
Heterarthus Cameron, 1882. Monog. Brit. Phytophagous Hym., v. 1, p. 282. Emend. for *Heterarthrus.*
Decatria Stephens, 1835. Illus. Brit. Ent., v. 7, p. 94.
Type: ***Decatria fuscipennis*** Stephens. Monob. and orig. desig.
Druida E. Newman, 1838. Ent. Mag. 5: 484.
Type: ***Druida parviceps*** E. Newman. Monob.
Phlebatrophia MacGillivray, 1909. Canad. Ent. 41: 345.
Type: ***Phlebatrophia mathesoni*** MacGillivray. Monob.

nemoratus (Fallén). Eastern; introduced from Europe. Host: *Betula.*
Hylotoma nemorata Fallén, 1808. Svenska Vetensk. Akad. Handl. 29: 47.
Phyllotoma nemoralis Fallén, 1829. Monog. Tenthred. Suec., p. 35.
Phlebatrophia mathesoni MacGillivray, 1909. Canad. Ent. 41: 345. ♀.

Tribe FENUSINI

All members of this tribe are leaf miners.

Genus METALLUS Forbes

Metallus Forbes, 1885. State Ent. Ill. Rpt. 14: 87.
Type: *Metallus rubi* Forbes. Monob.
Entodecta Konow, 1886. Wien. Ent. Ztg. 5: 184.
Type: *Tenthredo (Allantus) pumila* Klug. Desig. by MacGillivray, 1909.
Polybates MacGillivray, 1909. Ent. Soc. Amer. Ann. 2: 264.
Type: *Polybates slossonae* MacGillivray. Monob.

capitalis (Norton), n. comb. Transcont. through north. U. S. and south. Canada.
Selandria capitalis Norton, 1867. Amer. Ent. Soc. Trans. 1: 247. ♀.
Polybates slossonae MacGillivray, 1909. Ent. Soc. Amer. Ann. 2: 265. ♀.
Polybates secundus Rohwer, 1910. U. S. Natl. Mus. Proc. 38: 202. ♀.
Entodecta humilis Konow, 1908. Ztschr. System. Hym. Dipt. 7: 84. ♀.

rohweri MacGillivray. Northeastern, west to Ill. Host: *Rubus.*
Metallus rubi Forbes, 1885. State Ent. Ill. Rpt. 14: 87. ♂. Preocc.
Metallus rohweri MacGillivray, 1909. Ent. Soc. Amer. Ann. 2: 267. ♀.
Metallus bethunei MacGillivray, 1914. Canad. Ent. 46: 366. ♂ ♀.

Genus MESSA Leach

Messa Leach, 1817. Zool. Misc., v. 3, p. 126.
Type: *Tenthredo hortulana* Klug. Monob.
Melanobates MacGillivray, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 158.
Type: *Parabates leucostomus* Rohwer. Monob.
Fenusella Enslin, 1914. Deut. Ent. Ztschr., p. 270.
Type: *Fenusa Wustneii* Konow. Monob. and orig. desig.

alaskana (Kincaid), n. comb. Alaska.
Fenusa alaskana Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 345. ♂.

leucostoma (Rohwer), n. comb. Alta., N. B.
Parabates leucostomus Rohwer, 1910. U. S. Natl. Mus. Proc. 38: 202. ♀.
Blennocampa amara MacGillivray, 1923. Canad. Ent. 55: 161. ♀. N. syn.

populi (Marlatt), n. comb. Northeastern, west to S. Dak. and south to Ariz. and N. Mex.
Scolioneura populi Marlatt, 1895. Ent. Soc. Wash. Proc. 3: 235. ♂ ♀.
Scolioneura luteopicta Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 398. ♂ ♀. N. syn.

Genus PROFENUSA MacGillivray

Profenusa MacGillivray, 1914. Canad. Ent. 46: 364.
Type: *Profenusa collaris* MacGillivray. Monob.

alumna (MacGillivray). Northeastern, west to Illinois.
Messa alumna MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 23. ♀.
Messa amica MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 23. ♀.
Messa appota MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 24. ♂.

canadensis (Marlatt). Northeastern, west to Ill. Host: *Crataegus.*
Scolioneura canadensis Marlatt, 1895. Ent. Soc. Wash. Proc. 3: 235. ♀.
Profenusa collaris MacGillivray, 1914. Canad. Ent. 46: 364. ♂ ♀.

inspirata (MacGillivray). Calif., Nev.
Parabates inspiratus MacGillivray, 1909. Ent. Soc. Amer. Ann. 2: 264. ♀.

lucifex (Ross), n. comb. Ill.
Fenusa lucifex Ross, 1936. Ill. State Acad. Sci. Trans. 29: 266. ♀.

Genus SETABARA Ross, new name

Parabates MacGillivray, 1909. Ent. Soc. Amer. Ann. 2: 262. Preocc.
Type: ***Parabates histrionicus*** MacGillivray. Orig .desig.

histrionicus (MacGillivray), n. comb. Oreg., Wash.
Parabates histrionicus MacGillivray, 1909. Ent. Soc. Amer. Ann. 2: 263. ♀.

Genus FENUSA Leach

Fenusa Leach, 1817. Zool. Misc., v. 3, p. 126.
Type: ***Tenthredo (Emphytus) pumila*** Klug. Monob.
Kaliosysphinga Tischbein, 1846. Stettin. Ent. Ztg. 7: 79.
Type: ***Kaliosysphinga dohrnii*** Tischbein. Monob.
Aphadnurus O. Costa, 1859. Fauna del Regno di Napoli, Imen., pt. 3, p. 40.
Type: ***Aphadnurus tantillus*** O. Costa. Monob.
Kaliofenusa Viereck, 1910. N. J. State Mus., Ann. Rpt., 1909, p. 591.
Type: ***Fenusa ulmi*** Sundevall. Monob.

dohrnii (Tischbein). Holarctic, northern. Host: *Alnus*.
Kaliosysphinga dohrnii Tischbein, 1846. Stettin. Ent. Ztg. 7: 80.
Fenusa curtus Norton, 1861. Ent. Soc. Phila. Proc. 1: 199. ♀.

pusilla (Lepeletier). Northeastern; European. Host: *Betula*.
Tenthredo (Emphytus) pumila Klug, 1814. Mag. Gesell. Naturf. Freunde Berlin 8: 277. Preocc.
Dolerus (Fenusa?) pusillus Lepeletier, 1823. Monog. Tenthred., p. 120.

ulmi Sundevall. Northeastern; European. Host: *Ulmus*.
Fenusa ulmi Sundevall, 1844. Skand. Naturf. Förhandl., p. 249.
Messa alsia MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 22. ♀.

Tribe NEFUSINI ROSS, New Tribe

Genus NEFUSA Ross, new genus

Length from tip of head to tip of abdomen, 4 mm. Head with clypeus slightly emarginate; antenna with third segment nearly twice length of fourth, fourth to ninth subequal. Venation reduced and almost identical with that of *Fenusa*. Mesopleuron with a distinct and moderately wide prepectus set off by a distinct furrow, this character and the venation distinguishing the genus from other North American forms. Tarsal claws with a large angulate basal lobe.

Type: ***Nefusa anita*** MacG.

anita (MacGillivray). Northeastern, west to Wis.
Messa anita MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 23. ♀.

Subfamily NEMATINAE

Tribe CLADIINI

Revision: Rohwer and Middleton, 1922. U. S. Natl. Mus. Proc. 60: 1–46.

Genus CLADIUS Illiger

Cladius Illiger, 1807. Mag. Insektenk 6: 190.
Type: ***Tenthredo difformis*** Panzer. Desig. by Latreille, 1810.

isomerus Norton. Widespread in No. Amer. Host: *Rosa*. The American form is probably the same as one in Europe, possibly *difformis* (Panzer), but the exact synonymy is still in doubt.
Cladius isomera Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 223. ♀.
Cladius pectinicornis of Amer. authors.

Genus Priophorus Dahlbom

Nematus subg. ***Priophorus*** Dahlbom, 1835. Conspectus Tenthred., Siricid., Oryssin. Scand., p. 4.
Genotype: ***Priophorus pilicornis*** Dahlbom. Desig. by Rohwer, 1911.

Stevensia Brullé, 1846. Hist. Nat. Ins., Hym., v. 4, p. 667.
Type: ***Priophorus varipes*** Lepeletier. Desig. by Rohwer, 1922.

It is possible that only two species are represented in North America, *pallipes* and *morio*, both holarctic. For the present, however, it seems better to preserve a few additional segregates which appear to have some indication of significance.

aequalis (Norton). Eastern. Host: *Prunus serotina.*
Cladius aequalis Norton, 1872. Amer. Ent. Soc. Trans. 4: 78. ♂.
Priophorus pruni Rohwer, 1922. U. S. Natl. Mus. Proc. 60: 32. ♂ ♀. N. syn.
Priophorus virginianus Rohwer, 1922. U. S. Natl. Mus. Proc. 60: 34. ♀. N. syn.
Priophorus plesius Rohwer, 1922. U. S. Natl. Mus. Proc. 60: 35. ♀. N. syn.

morio (Lepeletier). Holarctic; widespread in No. Amer. Host: *Rubus.*
Cladius morio Lepeletier, 1823. Monog. Tenthred., p. 58. ♂ ♀.
Cladius tener Zaddach, 1859. Programm Friedr. Co. Königsberg, p. 11.
Priophorus rubivorus Rohwer, 1922. U. S. Natl. Mus. Proc. 60: 28. ♀. N. syn.
?***Priophorus montanus*** Rohwer, 1922. U. S. Natl. Mus. Proc. 60: 31. ♀.

pallipes (Lepeletier). Holarctic; widespread in No. Amer. Host: *Betula; Crataegus; Rubus; Sorbus; Laurus;* and others.
Tenthredo albipes Fallén, 1808. Svenska Vetensk. Akad. Handl. 29: 110. Preocc.
Cladius pallipes Lepeletier, 1823. Monog. Tenthred., p. 59. ♂ ♀.
Craterocerus infuscatus MacGillivray, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 106. ♀. N. syn.
Trichiocampus pacatus MacGillivray, 1921. Ent. News 32: 48. ♀. N. syn.
Trichiocampus paetulus MacGillivray, 1921. Ent. News 32: 48. ♀. N. syn.
Trichiocampus palliolatus MacGillivray, 1921. Ent. News 32: 49. ♀. N. syn.
Priophorus modestius MacGillivray, 1921. Ent. News 32: 49. ♀. N. syn.
Priophorus munditus MacGillivray, 1921. Ent. News 32: 50. ♀. N. syn.
Priophorus crataegi Rohwer, 1922. U. S. Natl. Mus. Proc. 60: 26. ♀. N. syn.

salicivorus Rohwer. Conn. Host: *Salix.*
Priophorus salicivorus Rohwer, 1922. U. S. Natl. Mus. Proc. 60: 29. ♂ ♀.

Unplaced Species of Priophorus

betulae Rohwer. Conn. Host: *Betula populifolia.*
Priophorus betulae Rohwer, 1922. U. S. Natl. Mus. Proc. 60: 27. ♂ ♀.

rubi Rohwer. Pa. Host: *Rubus.*
Priophorus rubi Rohwer, 1922. U. S. Natl. Mus. Proc. 60: 32. ♀.

solitaris (Dyar). Host: *Alnus.*
Cladius solitaris Dyar, 1895. Canad. Ent. 27: 192, 340. ♀.

Genus Trichiocampus Hartig

Cladius subg. ***Trichiocampus*** Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 176.
Type: ***Nematus grandis*** Lepeletier. Desig. by Rohwer, 1911.

gregarius Dyar. Eastern. Host: *Populus.*
Trichiocampus gregarius Dyar, 1895. Canad. Ent. 27: 191. ♀.

irregularis (Dyar). Eastern. Host: *Salix.*

Priophorus irregularis Dyar, 1900. N. Y. Ent. Soc. Jour. 8: 28. ♂.
Trichiocampus patchiae MacGillivray, 1921. Ent. News 32: 48. ♀. N. syn.
Priophorus moratus MacGillivray, 1921. Ent. News 32: 50. ♀. N. syn.

simplicicornis (Norton). Maine.
Cladius simplicicornis Norton, 1869. Amer. Ent. Soc. Trans. 2: 367. ♂.

viminalis (Fallén). European; introduced on both east and west coasts of No. Amer. Host: *Populus; Salix.*
Tenthredo viminalis Fallén, 1808. Svenska Vetensk. Akad. Handl. 29: 177. ♂ ♀.
Aulacomerus lutescens Lintner, 1888. Ins. N. Y. Rpt. 4: 44. ♂ ♀.
Platycampus victoria MacGillivray, 1920. Canad. Ent. 52: 61. ♀.

Tribe NEMATINI

Genus HOPLOCAMPA Hartig

Hoplocampa Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 276.
Type: ***Tenthredo (Allantus) brevis*** Klug. Desig. by Rohwer, 1911.
Macgillivraya Ashmead, 1898. Canad. Ent. 30: 257. Preocc.
Type: ***Macgillivraya oregonensis*** Ashmead. Orig. desig.
Macgillivrayella Ashmead, 1899. *In* Smith, Ins. of N. J., p. 606. N. name for *Macgillivraya.*
Revision: Ross, 1943. Amer. Ent. Soc. Trans. 69: 61-92.
Biology: Bird, 1927. Ent. Soc. Amer. Ann. 20: 481-487.

The larvae live in developing fruits of Rosaceae, known host genera including *Crataegus, Malus, Prunus,* and *Amelanchier.*

alpestris Rohwer. Alta., B. C., Colo., Mont., Wash.
Hoplocampa (Hoplocampa) alpestris Rohwer, 1911. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 20 (4): 142. ♀ ♂.

bioculata Rohwer. B. C., Calif., Colo., Oreg.
Hoplocampa bioculata Rohwer, 1908. Canad. Ent. 40: 179. ♀.
Hoplocampa koebelei Rohwer, 1911. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 20 (4): 142. ♀.
Hoplocampa padusa MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 17. ♂.

cookei (Clarke). B. C., Calif., Idaho, Oreg., Wash. Host: *Cherry.*
Dolerus cookei Clarke, 1906. Canad. Ent. 38: 351. ♂ ♀.
Hoplocampa (Hoplocampa) californica Rohwer, 1911. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 20 (4): 143. ♂ ♀.

(?)flavicornis (Provancher). Que.
Selandria flavicornis Provancher, 1878. Nat. Canad. 10: 100. ♂.

halcyon (Norton). Va. to Canada; Atlantic Coast to Ill. and Man. Host: *Amelanchier spicata.*
Selandria halcyon Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 222. ♂ ♀.
Hoplocampa (Hoplocampa) xantha Rohwer, 1911. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 20 (4): 144. ♀.
Morphology: Bird, 1926. Ent. Soc. Amer. Ann. 19: 268-279.

idaho Ross. Idaho, Wash.
Hoplocampa idaho Ross, 1943. Amer. Ent. Soc. Trans. 69: 81. ♂ ♀.

lacteipennis Rohwer. East. Rocky Mts., south. Canada, north. U. S. to Atlantic Coast. Host: *Prunus virginiana.*
Hoplocampa (Macgillivrayella) lacteipennis Rohwer, 1910. Canad. Ent. 42: 244. ♀.
Hoplocampa (Macgillivrayella) xanthura Rohwer, 1910. Canad. Ent. 42: 244. ♂.
Hoplocampa (Macgillivrayella) pallida Rohwer, 1911. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 20 (4): 141. ♀.

makila Ross. Oreg.
Hoplocampa makila Ross, 1943. Amer. Ent. Soc. Trans. 69: 68. ♀.

marlatti Rohwer. Colo., Ill. Iowa, Kans., Man., Mich., N. Y.
Hoplocampa (Hoplocampa) marlatti Rohwer, 1911. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 20 (4): 143. ♂ ♀.

montanicola Rohwer. North. U. S. and south. Canada. Host: *Prunus virginiana.*
Hoplocampa (Hoplocampa) montanicola Rohwer, 1911. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 20 (4): 145. ♂ ♀.
Hoplocampa (Hoplocampa) orbitalis Rohwer, 1911. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 20 (4): 141. ♀.
Hoplocampa (Hoplocampa) occidentalis Rohwer, 1911. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 20 (4): 144. ♀ ♂.

nalema Ross. Mt. Rainier region in Wash.
Hoplocampa nalema Ross, 1943. Amer. Ent. Soc. Trans. 69: 82. ♂ ♀.

neneti Ross. Ont.
Hoplocampa neneti Ross, 1943. Amer. Ent. Soc. Trans. 69: 77. ♂.

oregonensis (Ashmead). Idaho, Mont., Oreg.
Macgillivraya oregonensis Ashmead, 1898. Canad. Ent. 30: 257. ♂ ♀.

oskina Ross. Ill.
Hoplocampa oskina Ross, 1943, Amer. Ent. Soc. Trans. 69: 71. ♂ ♀.

pallipes MacGillivray. West. U. S. and Canada, Mich., Minn., N. Y. Host: *Amelanchier.*
Hoplocampa pallipes Macgillivray, 1893. Canad. Ent. 25: 239. ♀.
Hoplocampa (Hoplocampa) nevadensis Rohwer, 1911. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 20 (4): 143. ♀.

ritcheri Ross. Ill., N. C., Wash. Host: Probably *Crataegus.*
Hoplocampa ritcheri Ross, 1943. Amer. Ent. Soc. Trans. 69: 72. ♂ ♀.

sialica Ross. N. Y.
Hoplocampa sialica Ross, 1943. Amer. Ent. Soc. Trans. 69: 67. ♂ ♀.

spala Ross. B. C., Oreg.
Hoplocampa spala Ross, 1943. Amer. Ent. Soc. Trans. 69: 83. ♂.

stricklandi Ross. Alta., Mich.
Hoplocampa stricklandi Ross, 1943. Amer. Ent. Soc. Trans. 69: 73. ♂ ♀.

testudinea (Klug). B. C., N. Y., introduced from Europe. Host: *Malus malus.*
Tenthredo (Allantus) testudinea Klug, 1814. Mag. Gesell. Naturf. Freunde Berlin 8: 60.

texas Ross. Tex. Host: Probably *Crataegus.*
Hoplocampa texas Ross, 1943. Amer. Ent. Soc. Trans. 69: 68. ♂ ♀.

Genus CAULOCAMPUS Rohwer

Caulocampus Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 239.
Type: *Priophorus acericaulis* MacGillivray. Monob.

acericaulis (MacGillivray). Ill. Larvae mine in petioles of maple leaves.
Priophorus acericaulis MacGillivray, 1906. Canad. Ent. 38: 306. ♀.

Genus HEMICHROA Stephens

Subgenus HEMICHROA Stephens

Hemichroa Stephens, 1835. Illus. Brit. Ent., v. 7, p. 55.
Type: *Tenthredo alni* Linnaeus. Desig. by Westwood, 1840.
Leptocerca Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 228.
Type: *Tenthredo alni* Linnaeus. Desig. by Rohwer, 1911.
Engages Gistel, 1848. Naturgesch. Thierr. f. höh. Schul., p. 9. N. name for *Leptocerca* Hartig.
Leptocercus Thomson, 1871. Hym Scand., v. 1, p. 76. Emend. of *Leptocerca* Hartig.

crocea (Fourcroy). Transcont., north. U. S. and Canada. Host: *Alnus.*
Tenthredo crocea Fourcroy, 1785. Ent. Paris, p. 364.

Dineura americana Provancher, 1882. Nat. Canad. 13: 292. ♀.
Hemichroa pallida Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 15. ♀.
Hemichroa dyari Rohwer, 1918. Ent. Soc. Wash. Proc. 20: 171.
Hemichroa washingtonia Rohwer and Middleton, 1931. Ent. Soc. Wash. Proc. 34: 97. ♂ ♀.
Biology: Hopping, 1937. Canad. Ent. 69: 243-249.

Subgenus VARNA Ross

Varna Ross, 1937. Ill. Biol. Monog. 15: 79.
Type: ***Nematus militaris*** Cresson. Orig. desig.

amelanchieridis (Rohwer). East. U. S. Host: *Amelanchier.*
Pteronidea amelanchieridis Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 215. ♀.

militaris (Cresson). Northeast. U. S.
Nematus militaris Cresson, 1880. Amer. Ent. Soc. Trans. 8: 7. ♀.

thoracicus (Harrington). Transcont., north. U. S. and south. Canada.
Nematus thoracicus Harrington, 1893. Canad. Ent. 21: 58. ♀.

Genus CRATEROCERCUS Rohwer

Craterocercus Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 385.
Type: ***Hemichroa phytophagica*** Dyar. Orig. desig.
Revision: Rohwer, 1918. Ent. Soc. Wash. Proc. 20: 162-165.

This genus is confined to deciduous forests. Certain species feed on oaks, and the genus may be restricted to this genus of trees.

albidovariata (Norton). Tex.
Hemichroa albidovariata Norton, 1872. Amer. Ent. Soc. Trans. 4: 81. ♀.

albipes (Cresson), n. comb. Calif., Nev.
Mesoneura albipes Cresson, 1880. Amer. Ent. Soc. Trans. 8: 11. ♀.
Craterocercus californicus Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 234. ♀. N. syn.

cervinus MacGillivray. N. H.
Craterocercus cervinus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 9. ♀.

circulus MacGillivray. Ill.
Craterocercus circulus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 9. ♀.

cordleyi MacGillivray. Calif., Oreg.
Craterocercus cordleyi MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 9. ♀.

floridanus Rohwer. Fla.
Craterocercus floridanus Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 238. ♂ ♀.

fraternalis (Norton). Tex.
Hemichroa fraternalis Norton, 1872. Amer. Ent. Soc. Trans. 4: 81. ♂.

phytophagica (Dyar). N.Y.
Hemichroa phytophagica Dyar, 1898. N. Y. Ent. Soc. Jour. 6: 125. ♀.

quercivorus Rohwer. N. Y. Host: *Quercus alba.*
Craterocercus quercivorus Rohwer, 1918. Ent. Soc. Wash. Proc. 20: 164. ♂ ♀.

Genus PLATYCAMPUS Schiødte

Leptopus Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 184. Preocc.
Type: ***Nematus (Leptopus) hypogastricus*** Hartig. Monob.
Platycampus Schiödte, 1839. Mag. Zool. (ser. 2) 1: 20, footnote; pl. 6-10. N. name for *Leptopus* Hartig.
Erasminus Gistel, 1848. Naturgesch. Thierr. f. höh. Schul., p. 9. N. name for *Leptopus* Hartig.
Camponiscus Newman, 1869. Entomologist 4: 215.

Type: ***Camponiscus healaei*** Newman. Monob.

albostigmus (Rohwer). Colo.
Camponiscus albostigmus Rohwer, 1908. N. Y. Ent. Soc. Jour. 16: 105. ♀.

americanus (Marlatt). Northeast. U. S. and Canada. Host: Poplar.
Camponiscus americanus Marlatt, 1896. Canad. Ent. 28: 251. ♀.

smithi (Rohwer). Colo.
Camponiscus smithi Rohwer, 1908. N. Y. Ent. Soc. Jour. 16: 105. ♀.

vierecki MacGillivray. N. Mex.
Platycampus vierecki MacGillivray, 1920. Canad. Ent. 52: 60. ♀.

Genus ANOPLONYX Marlatt

Anoplonyx Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 18.
Type: ***Nematus pectoralis*** Lepeletier. Desig. by Rohwer, 1911.
Marlattia Ashmead, 1898. Canad. Ent. 30: 287.
Type: ***Hemichroa laricis*** Marlatt. Orig. desig.

Members of this genus feed on larch, *Larix*.

canadensis Harrington. Eastern, west to Mich.
Anoplonyx canadensis Harrington, 1902. Canad. Ent. 34: 94. ♀.
Platycampus (Anoplonyx) itascus Rohwer and Middleton, 1932. Ent. Soc. Wash. Proc. 34: 96. ♂.

laricivorus Rohwer and Middleton. Idaho.
Platycampus (Anoplonyx) laricivorus Rohwer and Middleton, 1932. Ent. Soc. Wash. Proc. 34: 95. ♂ ♀.

luteipes (Cresson), n. comb. Eastern, west to Ill.
Dineura luteipes Cresson, 1880. Amer. Ent. Soc. Trans. 8: 11. ♂.
Hemichroa laricis Marlatt, 1896. Canad. Ent. 28: 257. ♀. N. syn.

occidens Ross. Idaho.
Platycampus (Anoplonyx) laricis Rohwer and Middleton, 1932. Ent. Soc. Wash. Proc. 34: 95. ♂ ♀. Preocc.
Anoplonyx occidens Ross, 1937. Ill. Biol. Monog. 15 (2): 82.

Genus ADELOMOS Ross

Adelomos Ross, 1935. Canad. Ent. 67: 201.
Type: ***Adelomos cleone*** Ross. Orig. desig.

cleone Ross. Ill., Ky.
Adelomos cleone Ross, 1935. Canad. Ent. 67: 202. ♀.

Genus NEOPAREOPHORA MacGillivray

Neopareophora MacGillivray, 1908. Canad. Ent. 40: 289.
Type: ***Neopareophora martini*** MacGillivray. Orig. desig.
Dineuridea Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 240.
Type: ***Marlattia erythrothorax*** Rohwer. Orig. desig.
Revision: Ross, 1935. Canad. Ent. 67: 204-205.

erythrothorax (Rohwer). Fla.
Marlattia erythrothorax Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 385. ♀.

litura (Klug). Eastern, west to Ill.
Dineura litura Klug, 1814. Mag. Gesell. Naturf. Freunde Berlin 8: 83. ♀.
Dineura linitus Norton, 1867. Amer. Ent. Soc. Trans. 1: 240. ♀.
Dineura lateralis Norton, 1867. Amer. Ent. Soc. Trans. 1: 240. ♀.
Neopareophora martini MacGillivray, 1908. Canad. Ent. 40: 289. ♀.

Genus NEMATINUS Rohwer

Nematinus Rohwer, 1911. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 20: 99.
Type: ***Tenthredo abdominalis*** Panzer. Orig. desig.

ochreatus (Rohwer), n. comb. N. B.
Pteronus ochreatus Rohwer, 1910. U. S. Natl. Mus. Proc. 38: 198. ♀.

oronus (Kincaid). Alaska.
Pachynematus oronus Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 347. ♀.

pontanioides (Marlatt). Eastern.
Nematus pontanioides Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 89. ♀.

unicolor (Marlatt). Eastern.
Nematus unicolor Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 88. ♀.

Genus PRISTIPHORA Latreille

Pristiphora Latreille, 1810. Consid. Genérales Crust. Arachn. Ins., p. 294.
Type: *Pteronus testaceus* Jurine. Orig. desig.
Diphadnus Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 225.
Type: *Nematus fuscicornis* Hartig. Desig. by Rohwer, 1911.
Lygaeonematus Konow, 1890. Deut. Ent. Ztschr., pp. 233, 238, 247.
Type: *Nematus pini* Retzius. Desig. by Rohwer, 1911.
Gymnonychus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 122.
Type: *Gymnonychus californicus* Marlatt. Orig. desig.
Neotomostethus MacGillivray, 1908. Canad. Ent. 40: 290.
Type: *Neotomostethus hyalinus* MacGillivray. Orig. desig.
Pristiphora subg. *Sala* Ross, 1937. Ill. Biol. Monog. 15 (2): 85. Preocc.
Type: *Nematus chloreus* Norton. Orig. desig.
Revision: Marlatt, 1898. U. S. Dept Agr. Div. Ent. Tech. Ser. 3: 1-135.

In this list subgenera as outlined in Ross 1937 have not been used. There seems need of a more thorough knowledge of the genus before these categories will have phylogenetic significance. The various species in the genus are extremely diverse in structure and host plants.

anaka Kincaid. Alaska.
Pristiphora anaka Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 350. ♀.
Pristiphora circularis Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 350. ♀. N. syn.

banksi Marlatt.
Pristiphora banksi Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 117. ♂ ♀.

bivittata (Norton). Widespread, transcont. Host: *Spiraea.*
Nematus bivittatus Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 158. ♀.
Nematus luteolus Norton, 1867. Amer. Ent. Soc. Trans. 1: 200. ♂.
Pristiphora koebelei Marlatt, 1896. U. S. Dept Agr. Div. Ent. Tech. Ser. 3: 119. ♀. N. syn.
Pristiphora occidentalis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 109. ♂. N. syn.
Pachynematus occidentalis Marlatt, 1896, U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 121. ♂. N. syn.
Periclista patchi MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 29. ♀. N. syn.

californica (Marlatt). Calif. Host: Pear.
Gymnonychus californicus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 122. ♀.

chlorea (Norton). East. deciduous forest. Host: *Quercus.*
Nematus chloreus Norton, 1896. Amer. Ent. Soc. Trans. 1: 221. ♀.
Nematus pallifrons Cresson, 1880. Amer. Ent. Soc. Trans. 8: 6. ♂.
Pteronus quercus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 67. ♀.
Nematus pergandei Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 90. ♀. N. syn.

coloradensis Marlatt. Colo.
Pristiphora coloradensis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 121. ♂.

dyari Marlatt. Eastern.
Pristiphora dyari Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 118. ♀.
Pristiphora idiotiformis Rohwer, 1910. U. S. Natl. Mus. Proc. 38: 199. ♀. N. syn.

erichsonii (Hartig). North. U. S. and Canada; holarctic. Host: *Larix.*
Nematus Erichsonii Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 187.
Nematus notabilis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 7. ♀.

geniculata (Hartig). Northeastern; introduced from Europe. Host: *Sorbus.*
Nematus geniculatus Hartig, 1840. Stettin. Ent. Ztg. 1: 26. ♀.

hoodi (Marlatt), n. comb. Oreg. (Mt. Hood).
Pachynematus hoodi Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 104. ♀.

hyalinus (MacGillivray). N. Y.
Neotomostethus hyalinus MacGillivray, 1908. Canad. Ent. 40: 290. ♀.

idiota (Norton). Eastern, west to Ill.
Nematus idiota Norton, 1867. Amer. Ent. Soc. Trans. 1: 77. ♂.
Nematus identidem Norton, 1867. Amer. Ent. Soc. Trans. 1: 77. ♀.

jocularis Cresson. Nev., Oreg.
Pristiphora jocularis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 3. ♂ ♀.
?***Pristiphora hoodi*** Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech Ser. 3: 119. ♀. Homonym of *hoodi* (Marlatt), p. 104.

labradoris (Norton). Labrador.
Nematus labradoris Norton, 1867. Amer. Ent. Soc. Trans. 1: 196. ♀.

lata (Cresson). Nev.
Nematus latus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 4. ♀.

lena Kincaid. Alaska.
Pristiphora lena Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 351. ♂.

maura Rohwer. Colo.
Pristiphora maura Rohwer, 1908. N. Y. Ent. Soc. Jour. 16: 109. ♂.

mollis (Hartig). Transcont., north. U. S. to Alaska; holarctic.
Nematus mollis Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 201.
Pachynematus orarius Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 348. ♀. N. syn.

nigra Marlatt. Wash.
Pristiphora nigra Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 114. ♀.

relativa Norton. N. W. T.
Pristiphora relativa Norton, 1867. Amer. Ent. Soc. Trans. 1: 77. ♀.

resinicolor (Marlatt). Alaska.
Gymnonychus resinicolor Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 125. ♀.

rufipes Lepeletier. Widespread; holarctic. Host: Gooseberry (*Ribes* sp.).
Pristiphora rufipes Lepeletier, 1823. Monog. Tenthred., p. 60. ♀.
Pristiphora pallipes Lepeletier, 1823. Monog. Tenthred., p. 60. ♀. Preocc.
Nematus appendiculatus Hartig, 1937. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 202. ♀.
Pristiphora grossulariae Walsh, 1866. Pract. Ent. 1: 117.

siskiyouensis Marlatt. Transcont. Host: *Betula.*
Pristiphora siskiyouensis Marlatt, 1896. U. S. Dept. Div. Ent. Tech. Ser. 3: 116. ♀.
Pristiphora ortinga Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 349. ♀. N. syn.
Pristiphora betulavora Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 219. ♂ ♀. N. syn.

sycophanta Walsh. Eastern, west to Mo. Host: *Salix*

Pristiphora sycophanta Walsh, 1866. Ent. Soc. Phila. Proc. 6: 263. ♀.
Pristiphora tibialis Norton, 1867. Amer. Ent. Soc. Trans. 1: 76. ♀.
Pristiphora murtfeldtiae Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 117. ♀.

vacalus (MacGillivray), n. comb. Oreg.
Amauronematus vacalus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 6. ♀.

winnipeg (Norton), n. comb. Alaska, Colo., Man.
Nematus winnipeg Norton, 1867. Amer. Ent. Soc. Trans. 1: 198. ♀.
Pristiphora bucoda Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 350. ♀. N. syn.
Lygaeonematus winnipegensis Konow, 1905. Gen. Ins., v. 29, p. 68. Emend. of *winnipeg*.
Pristiphora dawsoni Rohwer, 1908. N. Y. Ent. Soc. Jour. 16: 109. ♀.

zella Rohwer. Transcont., north. U. S. and Canada.
Pristiphora zella Rohwer, 1909. Canad. Ent. 41: 20. ♀.
Pristiphora pallicoxa Rohwer, 1910. U. S. Natl. Mus. Proc. 38: 200. ♀. N. syn.
Pristophora (!) ***xanthotrachela*** Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 281. ♀. N. syn.
Pristiphora ostiaria MacGillivray, 1920. Canad. Ent. 52: 236. ♂ ♀. N. syn.

Genus PACHYNEMATUS Konow

Pachynematus Konow, 1890. Deut. Ent. Ztschr., pp. 233, 238, 246.
Type: ***Nematus capreae*** Panzer. Desig. by Rohwer, 1911.
Revision: Ross, 1945. Ent. Soc. Wash. Proc. 47 (5): 105–120.—Benson, 1948. Ent. Monthly Mag. 84: 58–65.

The larvae of this genus feed on sedges and grasses.

Extensicornis Group

anolita Ross, n. name. Colo., Kans., Mont., Tex. Reared from wheat.
Pachynematus apicalis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 107. ♂. Preocc. by *apicalis* (Hartig), 1837.

auratus Marlatt. Ill., Ind., Iowa, Kans., Mont., N. Y.
Pachynematus auratus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 99. ♂ ♀.

clibrichellus (Cameron). Holarctic, subarctic.
Nematus clibrichellus Cameron, 1878. Fauna Scotland, v. 1, p. 32. ♂.
Pachynematus pubescens Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 100. ♀.
Pachynematus gotarius Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 348. ♂. N. syn.
Pachynematus venustus MacGillivray, 1921. Calif. Acad. Sci. Proc. (ser. 4) 11 (14): 190. ♂ ♀.
Pachynematus vernus MacGillivray, 1921. Calif. Acad. Sci. Proc. (ser. 4) 11 (14): 191. ♂.

clypeatus Marlatt. Alta., Man., Mont.
Pachynematus clypeatus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 102. ♀.

diaphanus (Eversmann). Holarctic; north. U. S., Canada.
Nematus diaphanus Eversmann, 1847. Soc. Nat. Moscou Bul. 20: 19.
Nematus suadus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 10. ♀.
Pachynematus infumatus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 107. ♂.
Pachynematus refractarius MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29: 31. ♀.

extensicornis (Norton). North. U. S. and Canada, Atlantic coast west to Wyo. and Alta. Reared from wheat.
Nematus extensicornis Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 159. ♂.

Nematus marylandicus Norton, 1864. Ent. Soc. Phila. Proc. 3: 7. ♀.
Nematus aureopectus Norton, 1867. Amer. Ent. Soc. Trans. 1: 219. ♀.
Pachynematus affinis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 97. ♂ ♀.
Pachynematus tritici Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 106. ♂.

jamesi Ross. Colo.
Pachynematus jamesi Ross, 1945. Ent. Soc. Wash. Proc. 47 (5): 112. ♂.

miscus Ross. Oreg., Calif.
Pachynematus miscus Ross, 1945. Ent. Soc. Wash. Proc. 47 (5): 114. ♂.

moerens (Foerster). Holarctic; Alta.
Nematus moerens Foerster, 1854. Naturh. Ver. Rheinlande Verh. 11: 294. ♀.
Pachynematus falonus Ross, 1945. Ent. Soc. Wash. Proc. 47 (5): 113. ♂.

nigritibialis Rohwer. Ill., Kans., Mich., Nebr., N. Y., Ohio.
Pachynematus nigritibialis Rohwer, 1909. Canad. Ent. 41: 17. ♀.

painteri Ross. Kans. Reared from wheat.
Pachynematus painteri Ross, 1945. Ent. Soc. Wash. Proc. 47 (5): 115. ♂ ♀.

palliventris (Cresson). North. U. S. ,Canada. This may be a synonym of the palearctic *obductus* (Hartig).
Nematus palliventris Cresson, 1880. Amer. Ent. Soc. Trans. 8: 5. ♀.
Pachynematus boulderensis Rohwer, 1920. U. S. Natl. Mus. Proc. 57 (2312): 218. ♀.

setator Ross. Ill., N. Y., Oreg.
Pachynematus setator Ross, 1945. Ent. Soc. Wash. Proc. 47 (5): 113. ♂.

smithae Ross. N. Y.
Pachynematus smithae Ross, 1945. Ent. Soc. Wash. Proc. 47 (5): 116. ♂.

sporax Ross. Idaho, Oreg., Sask., Wash.
Pacyhnematus sporax Ross, 1945. Ent. Soc. Wash. Proc. 47 (5): 115. ♂.

thoracicus Marlatt. Mont.
Pachynematus thoracicus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 108. ♂.

uvator Ross. B. C., Utah, Wash.
Pachynematus uvator Ross, 1945. Ent. Soc. Wash. Proc. 47 (5) :114. ♂.

Unplaced Names

absyrtus MacGillivray. Oreg.
Pachynematus absyrtus MacGillivray, 1923. Ill. Univ. Bul. 20: 27. ♀.

academus MacGillivray. Oreg.
Pachynematus academus MacGillivray, 1923. Ill. Univ. Bul. 20: 27. ♀.

ater (MacGillivray). Wash.
Messa ater MacGillivray, 1893. Canad. Ent. 25: 238. ♀.

coloradensis Marlatt. Colo.
Pachynematus coloradensis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 102. ♀.

ebenus (Cresson). Colo.
Aulacomerus? *ebenus* Cresson, 1880. Amer. Ent. Soc. Trans. 8: 10. ♀.

graminis Marlatt. Nev.
Pachynematus graminis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 101. ♀.

pleuricus (Norton). Colo.
Nematus pleuricus Norton, 1867. Amer. Ent. Soc. Trans. 1: 208. ♀.

robinsonae (Rohwer). Colo.
Lygaeonematus robinsonae Rohwer, 1915. U. S. Natl. Mus. Proc. 49:212. ♀.

sahlbergi Konow. Alaska.
Pachynematus sahlbergi Konow, 1908. Ztschr. System. Hym. Dipt. 8: 83.

Unplaced Names

abdominalis Marlatt. Wash.
Pachynematus abdominalis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 104. ♀.

carolinensis Marlatt. N. C.
Pachynematus carolinensis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 109. ♂.

koebelei Marlatt. Oreg.
Pachynematus koebelei Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 108. ♂.

robustiformis Rohwer. Colo.
Pachynematus robustiformis Rohwer, 1908. N. Y. Ent. Soc. Jour. 16: 108. ♀.

robustus Marlatt. Mont.
Pachynematus robustus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 102. ♀.

Corniger Group

aurantiacus Marlatt. North. U. S. and south. Canada. Reared from *Carex*.
Pachynematus aurantiacus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 95. ♂ ♀.
Pachynematus punctulatus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 103. ♀.
Pachynematus allegatus MacGillivray, 1923. Canad. Ent. 55: 162. ♀.

corniger Norton. Canada, north. U. S. east of Rocky Mt. region.
Pachynematus corniger Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 159. ♂.
Pachynematus subalbatus Norton, 1864. Ent. Soc. Phila. Proc. 3: 7. ♀.
Pachynematus repertus MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29:31. ♀.
?*Pachynematus remissus* MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29:32. ♀.

corticosus MacGillivray. Alta., Idaho, Ill., Mass., Mich., Minn., Mont., N. Y., Ont., Que.
Pachynematus corticosus MacGillivray, 1901. N. Y. State Mus. Bul. 47: 584. ♀.
Pachynematus roscidus MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29: 31. ♀.

montivagus Marlatt, N. H. (White Mts.).
Pachynematus montivagus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 101. ♀.

rufocinctus MacGillivray. Conn.
Pachynematus rufocinctus MacGillivray, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 117. ♂ ♀.

Genus MICRONEMATUS Konow

Micronematus Konow, 1890. Deut. Ent. Ztschr., pp. 233, 239, 248.
Type: *Nematus pullus* Foerster. Desig. by Rohwer, 1911.

gregarius (Marlatt). Eastern. Host: *Salix*.
Pachynematus gregarius Marlatt, 1896. Canad. Ent. 28:256. ♂ ♀.
Pachynematus rarus MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29: 30. ♀.
Pontania decrepita MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29: 33. ♀. N. syn.

Genus PIKONEMA Ross

Pikonema Ross, 1937. Ill. Biol. Monog. 15 (2): 86.
Type: *Nematus dimmockii* Cresson. Orig. desig.
Revision: Ross, 1938. Ent. Soc. Wash. Proc. 40: 17–20.

alaskensis (Rohwer). Transcont., north U. S. and Canada. Host: *Picea*.
Pachynematus alaskensis Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 387. ♀ ♂.
Pachynematus piceae Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 387. ♂ ♀.

dimmockii (Cresson). Transcont., north. U. S. and Canada. Host: *Picea.*
Nematus dimmockii Cresson, 1880. Amer. Ent. Soc. Trans. 8: 6. ♀.
Nematus ocreatus Harrington, 1889. Canad. Ent. 21: 95. ♀.

ruralis (Cresson). Transcont., north. U. S. and Canada. Host: *Picea.*
Nematus ruralis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 5. ♀.

Genus CROESUS Leach

Croesus Leach, 1817. Zool. Misc., v. 3, p. 129.
Type: *Tenthredo septentrionalis* Linnaeus. Monob.

castaneae Rohwer. Va. Host: *Castanea dentata.*
Croesus castaneae Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 213. ♂ ♀.

latitarsus Norton. Eastern and central. Host: *Betula.*
Craesus (!) *latitarsus* Norton, 1862. Ent. Soc. Phila. Proc. 1: 199. ♀.

varus (Villaret). Que.; holarctic.
Nematus varus Villaret, 1832. Soc. Ent. France Ann. 1: 306. ♂.

Genus NEMATUS Panzer

Revision: Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 1–135.

Subgenus NEMATUS Panzer

Nematus Panzer, 1801. Faunae Ins. German., heft 82, pl. 10.
Type: *Tenthredo (Nematus) lucida* Panzer. Monob.
Hypolaepus Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 324.
Type: *Hypolaepus abbottii* Kirby. Monob.
Holcocneme Konow, 1890. Deut. Ent. Ztschr., pp. 233, 238, 246.
Type: *Tenthredo crassa* Fallen. Desig. by Rohwer, 1911.

abbottii (Kirby). Northeastern, west to Ill. Host: *Robinia pseudoacacia.*
Hypolaepus abbottii Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 324. ♀.

laticulus (Norton), n. comb. Northeastern, west to Ill.
Croesus laticulus Norton, 1869. Amer. Ent. Soc. Trans. 2: 368. ♀.
Nematus procidentius Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 245. ♂. N. syn.
Amauronematus rufipes Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 78. ♂. N. syn.

Subgenus PTERONIDEA Rohwer

Pteronidea Rohwer, 1911. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 20: 98.
Type: *Nematus ventralis* Say. Orig. desig.

Ventralis Group

Members of this group apparently are confined to *Salix* and *Populus.*

chalceus (Marlatt), n. comb. B. C., Wash. Host: *Salix.*
Amauronematus chalceus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 84. ♀.

costillensis (Rohwer), n. comb. Colo.
Pteronus costillensis Rohwer, 1908. N. Y. Ent. Soc. Jour. 16: 106. ♀.

erratus (MacGillivray). Alaska.
Pteronidea erratus MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 170. ♀.

exactus (MacGillivray), n. comb. Maine.
Pteronidea exacta MacGillivray, 1920. Canad. Ent. 52: 235. ♂.
Amauronematus vanus MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29: 27. ♀. N. syn.
Amauronematus venaticus MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29: 29. ♂. N. syn.

fulvicrus Provancher. Northeastern. Host: *Populus.*
Nematus fulvicrus Provancher, 1882. Nat. Canad. 13: 291. ♀.
Nematus salicis Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 15. Preocc.

Pteronidea evanida MacGillivray, 1920. Canad. Ent. 52: 233. ♂ ♀. N. syn.

iridescens Cresson.
Nematus iridescens Cresson, 1880. Amer. Ent. Soc. Trans. 8: 5. ♂.

limbatus Cresson. Northeastern. Host: *Salix.*
Nematus limbatus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 8. ♀.
Pteronus harringtoni Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 53. ♀. N. syn.
Pteronus fylesi Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 54. ♂ ♀. N. syn.

occidentalis (Marlatt), n. comb.
Pteronus occidentalis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 48. ♂.

populi (Marlatt). Northeastern, west to Rocky Mts. Host: *Populus.*
Nematus hudsonii magnus Dyar, 1894. Amer. Ent. Soc. Trans. 22: 306. ♀. Invalid; not binomial.
Pteronus populi Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 59. ♀.
Pteronus hudsoni Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 59. ♀. N. syn.
Pteronus lombardae Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 73. ♂. N. syn.
Pteronidea edura MacGillivray, 1920. Canad. Ent. 52: 233. ♀. N. syn.
Pteronidea effeta MacGillivray, 1920. Canad. Ent. 52: 234. ♀. N. syn.
Pteronidea effusa MacGillivray, 1920. Canad. Ent. 52: 233. ♀. N. syn.
Pteronidea emerita MacGillivray, 1920. Canad. Ent. 52: 234. ♀. N. syn.
Pteronidea erudita MacGillivray, 1920. Canad. Ent. 52: 234. ♀. N. syn.

ventralis Say. Eastern, west to Mont. Host: *Salix.*
Nematus ventralis Say, 1824. *In* Keating, Narr. Long's 2nd Exped., App., p. 315. ♀.
Nematus suratus Fitch, 1856. N. Y. Agr. Soc., Trans. 3: 315. ♀. N. syn.
Pteronus latus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 48. ♀. Preocc. in *Nematus* by *latus* Cresson, 1880. N. syn.
Hypolaepus viereckii Bradley, 1903. Canad. Ent. 35: 47. ♀. N. syn.
Pteronidea edita MacGillivray, 1920. Canad. Ent. 52: 235. ♂. N. syn.

zebratus (Kincaid), n. comb. Alaska.
Pteronus zebratus Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 357. ♀.

Atriceps Group

atriceps (Marlatt). Nev.
Pteronus atriceps Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 52. ♀.

auratus (Marlatt). Wash.
Pteronus auratus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 60. ♀.

californicus (Marlatt). Calif.
Pteronus californicus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 60. ♀.

coloradensis (Marlatt). Colo., Mont.
Pteronus coloradensis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 52. ♂ ♀.

Erythrogaster Group

carpini Marlatt. Eastern. Host: *Carpinus* or *Ostrya.*
Pteronus carpini Marlatt, 1898. Canad. Ent. 30: 303. ♀.

erythrogaster Norton. Eastern, west to Ill. Host: *Alnus; Corylus.*
Nematus erythrogaster Norton, 1865. Ent. Soc. Phila. Proc. 3: 8. ♀.
Nematus corylus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 8. ♀. N. syn.
Pteronus dyari Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 58 ♂ ♀.

Pteronus coryli Konow, 1905. Gen. Ins., v. 29, p. 55. Emend N. syn.
Pteronidea pulchella Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 279. ♀. N. syn.
Pteronidea alnivora Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 213. ♂ ♀. N. syn.

latifasciatus Cresson. N. H.
Nematus latifasciatus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 7. ♀.

Magus Group

magus (Marlatt), n. comb. East. Canada.
Pteronus magus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 67. ♀.

Mendicus Group

excessus (MacGillivray), n. comb. Alaska.
Pteronidea excessus MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 170. ♀.

hyalinus (Marlatt), n. comb. N. Y. Host: *Betula alba.*
Pteronus hyalinus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 67. ♀.

mendicus Walsh. Transcont., widespread. Host: *Salix.*
Nematus mendicus Walsh, 1866. Ent. Soc. Phila. Proc. 6: 261. ♀.
(?)*Nematus trivittatus* Norton, 1867. Amer. Ent. Soc. Trans. 1: 218. ♀.
(?)*Nematus dorsivittatus* Cresson, 1880. Amer. Ent. Soc. Trans. 8: 10. ♀.
Pteronus vancouverensis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 70. ♀. N. syn.
Pteronus koebelei Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 71. ♀. N. syn.
Pachynematus vernalis Rohwer, 1909. Canad. Ent. 41: 18. ♀. N. syn.
Pteronidea vanduzeei Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 280. ♀. N. syn.
Pteronidea elelea MacGillivray, 1923. Canad. Ent. 55: 162. ♀. N. syn.

pinguidorsum Dyar. Northeastern. Host: *Betula alba.*
Nematus pinguidorsum Dyar, 1895. Amer. Ent. Soc. Trans. 22: 303. ♀.

tibialis Newman. Eastern, adventive in other areas, including Europe. Host: *Robinia pseudoacacia.*
Nematus tibialis Newman, 1837. Ent. Mag. 4: 260. ♀.
Nematus trilineatus Norton, 1867. Amer. Ent. Soc. Trans. 1: 215. ♀.
Nematus similaris Norton, 1880. U. S. Dept. Agr. Ann. Rpt. for 1879, p. 224. ♀.
Nematus robiniae Forbes, 1885. State Ent. Ill. Rpt. 14: 116. ♀.
Pteronus solitarius Rohwer, 1908. N. Y. Ent. Soc. Jour. 16: 107. ♀. N. syn.

valerius (MacGillivray), n. comb. Oreg.
Amauronematus valerius MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 6. ♂.

wrighti (Rohwer), n. comb. South. Calif.
Amauronematus californicus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 85. ♀. Preocc.
Pteronus wrighti Rohwer, 1911. Ent. Soc. Wash. Proc. 13: 31. N. name for *californicus* Marlatt.

Ribesii Group

antennatus (Marlatt), n. comb.
Pteronus antennatus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 61. ♀.

edwardsii Cresson. Calif.
Nematus Edwardsii Cresson, 1880. Amer. Ent. Soc. Trans. 8: 7. ♀.

effrenatus (MacGillivray), n. comb. Alaska.
Pteronidea effrenatus MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 171. ♀.

equina (MacGillivray), n. comb. Maine.
Pteronidea equina MacGillivray, 1920. Canad. Ent. 52: 235. ♀.

foveatus (Marlatt), n. comb. Oreg., Wash.
Pteronus foveatus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 55. ♀.
Pteronidea electra MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 30. ♀. N. syn.

marlattii Dyar. N. H. Host: *Alnus.*
Nematus marlattii Dyar, 1894. Amer. Ent. Soc. Trans. 22: 305. ♀.

nigropectus Cresson, Nev., (?)Oreg., Wash.
Nematus nigropectus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 6. ♀.
(?)*Pteronus bicolor* Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 56. ♀.

odoratus (Marlatt), n. comb. Eastern, west to Ill. Host: *Salix; Populus.*
Nematus salicis odoratus Dyar, 1894. Canad. Ent. 26: 187. ♀ ♂. Invalid; not binomial.
Pteronus odoratus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 65. ♂ ♀.
Pteronus cornelli Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 65. ♂ ♀. N. syn.
Pteronidea winnanae Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 386. ♂. N. syn.
Pteronidea mendicana Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 214. ♀. N. syn.
Pteronidea plesia Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 216. ♀. N. syn.
Pontania dotata MacGillivray, 1921. N. Y. Ent. Soc. Jour. 21: 34. ♂. N. syn.

ostryae (Marlatt), n. comb. N. J. Host: *Ostrya.*
Pteronus ostryae Marlatt, 1896. Canad. Ent. 28: 252. ♀.

ribesii (Scopoli). Widespread, world-wide. Host: *Ribes*, many species.
Tenthredo ribesii Scopoli, 1763. Ent. Carn., p. 280.
Tenthredo ventricosa Latreille, 1805. Hist. Nat. Crust. Ins., v. 13, p. 131.
Pteronus longicornis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 72. ♂. Preocc. in *Nematus* by *longicornis* Escholz, 1822.
(?)*Pteronus arapahonum* Cockerell, 1906. Ent. News 17: 220. ♂.
Pteronidea aceris Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 211. ♀. N. syn.
Pteronidea equatia MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 30. ♂. N. syn.

tricolor (Marlatt), n. comb. N. H.
Pteronus tricolor Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 56. ♀.

unicolor (Marlatt), n. comb. Calif.
Pteronus unicolor Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 72. ♀.

Ungrouped Species

cockerelli (Rohwer), n. comb. Colo.
Pteronus cockerelli Rohwer, 1909. Canad. Ent. 41: 88. ♀.

coquilletti (Marlatt), n. comb. Calif.
Amauronematus coquilletti Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 84. ♀.

currani Ross, n. name. B. C. Host: *Populus.*
Pteronidea nigriventris Curran, 1926. Canad. Ent. 58: 233. ♀ ♂. Preocc.

hypomelas (Rohwer), n. comb. Colo.
Pteronus hypomelas Rohwer, 1908. Canad. Ent. 40: 48. ♀.

integer Say. Eastern.
Nematus integer Say, 1836. Boston Jour. Nat. Hist. 1: 218.

minutus (Marlatt), n. comb. Wash.
Pachynematus minutus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 110. ♂.

notatus (Rohwer), n. comb. Colo.
Pteronus notatus Rohwer, 1908. Canad. Ent. 40: 49. ♀.

pacificus (Marlatt), n. comb. Wash.
Pteronus pacificus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 49. ♀.

vacivus (MacGillivray), n. comb. Maine.
Amauronematus vacivus MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29: 28. ♂.

wrangeli (Marlatt), n. comb. Alaska.
Pachynematus wrangeli Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 109. ♂.
Pteronus rivularis Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 358. ♂. N. syn.

Subgenus Pontania O. Costa

Pontania O. Costa, 1859. Fauna del Regno di Napoli, Imen., pt. 3, p. 20.
Type: *Nematus gallicola* Stephens. Desig. by Marlatt, 1896.

This subgenus is in need of revision, and the following is chiefly a listing of names without evaluation of species units.

acuminatus (Marlatt), n. comb. Mich.
Pontania acuminata Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 32. ♀.

agamus (Rohwer), n. comb. Calif.
Pontania agama Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 242. ♀.
Pontania foveata Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 243. ♀.

agilis Cresson. Nev.
Nematus agilis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 9. ♂.

amentivorus (Rohwer), n. comb. Va. Host: Catkins of *Salix* sp.
Pontania amentivora Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 209. ♀.

atriventris (Marlatt), n. comb. Oreg. (Mt. Hood).
Pontania atriventris Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 38. ♀.

bozemani (Cooley), n. comb. Alta., Mont., Sask. Host: *Populus*.
Pontania bozemani Cooley, 1903. Canad. Ent. 35: 197. ♂ ♀.
Biology: Cooley, 1903. Mont. Agr. Expt. Sta. Bul. 46: 113–118.

brachycarpae (Rohwer), n. comb. Colo.
Pontania brachycarpae Rohwer, 1908. Canad. Ent. 40: 46. ♀.

consors (Marlatt), n. comb. N. Y. Host: Leaf galls on *Salix sericea*.
Pontania consors Marlatt, 1898. Canad. Ent. 30: 302. ♂ ♀.

crassicornis (Rohwer), n. comb. Ont. Host: Galls on *Salix humilis*.
Pontania crassicornis Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 241. ♂.

cressoni (Marlatt), n. comb. Wash.
Pontania cressoni Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 26. ♀.

daedalus (MacGillivray), n. comb. N. Y.
Pontania daedala MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29: 33. ♀.

dedecorus (MacGillivray), n. comb. N. Y.
Pontania dedecora MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29: 32. ♀.

delicatulus (MacGillivray), n. comb. Yukon Ter. Host: Leaf gall on *Salix reticulata*.
Pontania delicatula MacGillivray, 1919. Rpt. Canad. Arctic Exped. 1913–1918, v. 3G, p. 8G. ♂.

deminutus (MacGillivray), n. comb. N. W. T.
Pontania deminuta MacGillivray, 1919. Rpt. Canad. Arctic Exped. 1913–1918, v. 3G, p. 9G. ♀.

derosus (MacGillivray), n. comb. N. Y.
Pontania derosa MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29: 34. ♀.

destrictus (MacGillivray), n. comb. Alaska.
Pontania destricta MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 168. ♀.

devinctus (MacGillivray), n. comb. Maine.
Pontania devincta MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29: 34. ♂ ♀.

excavatus (Marlatt), n. comb. Calif., Colo.
Pontania excavata Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 30. ♂ ♀.

glinka (Kincaid), n. comb. Alaska.
Pontania glinka Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 355. ♂ ♀.

hyalinus (Norton), n. comb. N. J.
Messa hyalina Norton, 1864. Ent. Soc. Phila. Proc. 4: 8. ♀.

leavitti (Rohwer), n. comb. N. B.
Pontania leavitti Rohwer, 1910. U. S. Natl. Mus. Proc. 38: 199.

leucostoma (Rohwer), n. comb. Colo.
Pontania leucostoma Rohwer, 1908. Canad. Ent. 40:45. ♂.

lucidae (Rohwer), n. comb. Ont. Host: Galls on *Salix lucida*.
Pontania lucidae Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 242. ♂ ♀.

marianus (Ross), n. comb. B. C. Host: Leaf fold on *Populus balsamifera*.
Pontania mariana Ross, 1929. Ent. Soc. Wash. Proc. 31: 91. ♂ ♀.

marlatti (Ross), n. comb. Oreg.
Pontania marlatti Ross, 1929. Ent. Soc. Wash. Proc. 31: 93. ♀. This name is a homonym in *Nematus* of *marlattii* Dyar, 1894, but a new name is not given now, pending a solution of possible synonymy.

maurus (Rohwer), n. comb. Colo.
Pontania maura Rohwer, 1908. Canad. Ent. 40: 47. ♀.

megacephalus (Rohwer), n. comb. Colo.
Pontania megacephala Rohwer, 1908. Canad. Ent. 40: 47. ♂.

melanosoma (Rohwer), n. comb. Colo.
Pontania melanosoma Rohwer, 1908. Canad. Ent. 40: 48.

mellinus Cresson. Nev.
Nematus mellinus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 10. ♀.

monile (Marlatt). Utah. Host: Leaf gall on *Salix*.
Pontania monile Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 43. Gall, larva.

nevadensis Cresson. Nev.
Nematus nevadensis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 9. ♂ ♀.

nevadensis var. **nigripectus** (Rohwer), n. comb. Calif.
Pontania nevadensis var. ***nigripecta*** Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 243. ♂ ♀.

nigritus (Marlatt), n. comb. Mich.
Pontania nigrita Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 27. ♀. Preocc. by *Nematus nigritus* Nort.; see note under *marlatti* (Ross).

pallicornis Norton. Eastern.
Nematus pallicornis Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 160. ♀.

parvus Cresson. Nev.
Nematus parvus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 5. ♀.

pectoralis (Marlatt). Ill.
Pontania pectoralis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 31. ♀.

pepii (Ross). Mont.
Pontania pepii Ross, 1929. Ent. Soc. Wash. Proc. 31: 96. ♀.

placentus Norton. Labrador.
Nematus placentus Norton, 1867. Amer. Ent. Soc. Trans. 1: 213. ♂ ♀.

popofianus (Kincaid), n. comb. Alaska.

Pontania popofiana Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 353. ♂ ♀.

popuellus (Ross), n. comb. Man., S. Dak. Host: Leaf fold on *Populus deltoides*.
Pontania popuella Ross, 1929. Ent. Soc. Wash. Proc. 31: 93. ♂ ♀.

populi (Marlatt), n. comb. N. Y. Host: *Populus grandidentata*.
Pontania populi Marlatt, 1896. Canad. Ent. 28: 253. ♀. Preocc. by *Nematus populi* (Marlatt); see note under *marlatti* (Ross).

pumilus (Rohwer), n. comb. N. B.
Pontania pumila Rohwer, 1910. U. S. Natl. Mus. Proc. 38: 198. ♂ ♀.

pyriformis (Marlatt), n. comb. Calif.
Pontania pyriformis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 43. Gall, larva.

quadrifasciatus (MacGillivray), n. comb. N. W. T.
Pontania quadrifasciata MacGillivray, 1919. Rpt. Canad. Arctic Exped. 1913–1918, v. 3G, p. 10G. ♀.

robustus (Marlatt), n. comb. Mich., (?)D. C.
Pontania robusta Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 32. ♂ ♀.

rugulosus (Marlatt), n. comb. Mich.
Pontania rugulosus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 41. ♂.

stigmatalis (Marlatt), n. comb. Oreg.
Pontania stigmatalis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 39. ♀.

stipatus (MacGillivray), n. comb. Alaska.
Pontania stipata MacGillivray, 1921. Calif. Acad. Sci. Proc. (ser. 4) 9: 188.

subpallidus (MacGillivray), n. comb. N. W. T.
Pontania subpallida MacGillivray, 1919. Rpt. Canad. Arctic Exped. 1913–1918, v. 3G, p. 11G. ♀.

sulphureus (Marlatt), n. comb. Mont., Nev.
Pontania sulphurea Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 41. ♂ ♀.

terminalis (Marlatt), n. comb. N. Y. Host: *Salix*.
Pontania terminalis Marlatt, 1896. Canad. Ent. 28: 253. ♂ ♀.

trifasciatus (MacGillivray), n. comb. N. W. T.
Pontania trifasciata MacGillivray, 1919. Rpt. Canad. Arctic Exped. 1913–1918, v. 3G, p. 11G. ♀.

truncatus (Marlatt), n. comb. South. Calif.
Pontania truncata Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 38. ♀.

tundra (Kincaid), n. comb. Alaska.
Pontania tundra Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 352. ♂ ♀.

utensis (Rohwer). Colo.
Pontania utensis Rohwer, 1908. N. Y. Ent. Soc. Jour. 16: 107. ♀.

Genus EUURA NEWMAN

Euura Newman, January 1837. Ent. Mag. 4: 259.
Type: *Euura gallae* Newman. Desig. by Rohwer, 1911.
Nematus subg. *Cryptocampus* Hartig, March, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 221.
Type: *Nematus* (*Cryptocampus*) *medullaris* Hartig. Desig. by Rohwer, 1911.
Revision: Rohwer, 1909. N. Y. Ent. Soc. Jour. 17: 7–25.

Owing to the many species described since 1909, this genus is again in need of revision, and the following is chiefly a listing of names without evaluation of species units.

abortiva MacGillivray. Yukon. Host: Galls on leaves of *Salix reticulata*.

Euura abortiva MacGillivray, 1919. Rpt. Canad. Arctic Exped. 1913–1918, v. 3G, p. 4G. ♀.

albiricta Cresson. Nev.
Euura albiricta Cresson, 1880. Amer. Ent. Soc. Trans. 8: 4. ♀.

arctica MacGillivray. N. W. T. Host: Leaf gall on *Salix reticulata.*
Euura arctica MacGillivray, 1919. Rpt. Canad. Arctic Exped. 1913–1918, v. 3G, p. 5G. ♀.

bakeri (Rohwer). Calif. Host: Stem gall on *Salix.*
Cryptocampus bakeri Rohwer, 1910. Canad. Ent. 42: 51. ♂ ♀.

bebbianae (Rohwer). Colo. Host: Stem gall on *Salix ? bebbiana.*
Cryptocampus bebbianae Rohwer, 1909. N. Y. Ent. Soc. Jour. 17: 18. ♂ ♀.

borealis (Marlatt). Host: Gall on *Salix sericea.*
Pontania borealis Marlatt, 1898. Canad. Ent. 30: 302. ♀.

brachycarpae Rohwer. Colo.
Euura brachycarpae Rohwer, 1908. Canad. Ent. 40: 176. ♀ ♂.

bruneri (Marlatt). Wyo. Host: Leaf gall on *Salix interior.*
Pontania bruneri Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 35. ♀.

californica (Marlatt). Calif. Host: Leaf gall on *Salix.*
Pontania californica Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 38. ♂ ♀.

cooperae Cockerell. N. Mex. Host: Stem gall on narrow-leaved *Salix.*
Euura cooperae Cockerell, 1901. Ann. Mag. Nat. Hist. (ser. 7) 7: 337. ♀.

cosensii Rohwer. Ont. Host: Petiole gall on *Salix humilis.*
Euura cosensii Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 213. ♂ ♀.

demissa (MacGillivray), n. comb. N. Y.
Pontania demissa MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29: 33. ♀.

genuina Norton. Ill.
Euura s. gemma Walsh, 1866. Ent. Soc. Phila. Proc. 6: 250. ♂ ♀. Not binomial; name invalid.
Euura genuina Norton, 1867. Amer. Ent. Soc. Trans. 1: 79. This is either a misspelling of *gemma* or a manuscript name. In either case it is amply validated by quotations from Walsh's description of *salicis gemma,* and is the first valid name given to the species.

gracilis (Marlatt). Va. Host: Leaf galls on *Salix.*
Pontania gracilis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 39. ♀.

hoppingi Ross. B. C., Wash. Host: Leaf gall on *Salix.*
Pteronus kincaidi Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 55. ♂ ♀. Preocc.
Euura hoppingi Ross, 1937. Ill. Biol. Monog. 15 (2): 88. N. name.

hospes (Walsh). Eastern, west to Ill. and Man. Host: Leaf gall on *Salix.*
Nematus s. pomum Walsh, 1866. Ent. Soc. Phila. Proc. 6: 255. ♂ ♀. Not binomial; name invalid.
Nematus hospes Walsh, 1866. Ent. Soc. Phila. Proc. 6: 261. ♀ ♂.
Nematus salicis-pomum Thomas, 1881. State Ent. Ill. Rpt. 10: 68. Larva, gall.
Pontania pomum Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 36. ♂ ♀.
(?)***Pteronus dubius*** Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 74. ♂.

insularis Kincaid. Alaska.
Euura insularis Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 352. ♂ ♀.

kincaidi (Marlatt). Wash.
Pontania kincaidi Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 33. ♀.

macgillivrayi (Rohwer). Colo. Host: Stem gall of *Salix luteosericea.*
Cryptocampus macgillivrayi Rohwer, 1909. N. Y. Ent. Soc. Jour. 17: 16. ♂ ♀.

maura (Rohwer). Colo. Swept from *Salix.*
Cryptocampa maurus Rohwer, 1909. N. Y. Ent. Soc. Jour. 17: 23. ♂ ♀.

minuta MacGillivray. Iowa.
Euura minuta MacGillivray, 1914. Canad. Ent. 46: 366. ♀.

moenia MacGillivray. Oreg.
Euura moenia MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 17. ♂ ♀.

nigra Provancher. Que.
Euura nigra Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 346. ♀.

nigrella Rohwer. Ont.
Euura nigrella Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 241. ♀.

ora (Kincaid). Alaska.
Pontania ora Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 354. ♀.

orbitalis Norton. Northeastern.
Euura orbitalis Norton, 1862. Ent. Soc. Phila. Proc. 1: 144. ♂ ♀.

orbitalis var. **nigra** Norton. Labrador.
Euura orbitalis var. ***nigra*** Norton, 1867. Amer. Ent. Soc. Trans. 1: 71. ♀.

pacifica (Marlatt). South. Calif.
Pontania pacifica Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 35. ♀.

pallistigmus (Rohwer). N. B.
Cryptocampus pallistigmus Rohwer, 1910. U. S. Natl. Mus. Proc. 38: 200. ♂ ♀.

parva Rohwer. Colo.
Euura parva Rohwer, 1908. Canad. Ent. 40: 176. ♀.

perdita Rohwer. Colo. Host: Galls on *Salix.*
Euura perdita Rohwer, 1909. Canad. Ent. 41: 20. ♂ ♀.

perturbans Walsh. Ill. Host: Twig gall on *Salix.*
Euura s. ovum Walsh, 1866. Ent. Soc. Phila. Proc. 6: 252. ♂ ♀. Not binomial; name invalid.
Euura perturbans Walsh, 1866. Ent. Soc. Phila. Proc. 6: 254. ♂ ♀.
Euura salicis-ovum Thomas, 1881. State Ent. Ill. Rpt. 10: 69. Larva, gall.

propinqua (Rohwer). N. Mex. Host: Stem gall on *Salix.*
Cryptocampus propinquus Rohwer, 1909. N. Y. Ent. Soc. Jour. 17: 24. ♂.

resinicola (Marlatt). Calif. Host: Leaf gall on *Salix.*
Pontania resinicola Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 30. ♂ ♀.

salicicola Smith. Ill. Host: Stem gall on *Salix alba.*
Euura salicicola Smith, 1879. North Amer. Ent. 1: 41. ♂ ♀.

salicis-nodus (Dalla Torre), n. comb. Eastern, west to Okla. Host: Stem gall on *Salix interior.*
Euura s. nodus Walsh, 1866. Ent. Soc. Phila. Proc. 6: 253. ♂. Not binomial; name invalid.
Cryptocampus salicis-nodus Dalla Torre, 1894. Cat. Hym., v. 1, p. 278. N. name for *s. nodus* Walsh.
Cryptocampus nodus Konow, 1905. *In* Wytsman, Gen. Ins., fasc. 29, p. 51. N. name for *s. nodus* Walsh.

salicis-ovulum (Dalla Torre), n. comb. Ill. Host: Stem gall on *Salix humilis.*
Euura s. ovulum Walsh, 1866. Ent. Soc. Phila. Proc. 6: 253. Larva, gall. Not binomial; name invalid.
Cryptocampus salicis-ovulum Dalla Torre, 1894. Cat. Hym., v. 1, p. 278. N. name for *s. ovulum* Walsh.

salicis-pisum (Thomas), n. comb. Ill. Host: Leaf gall on *Salix discolor.*

Nematus s. pisum Walsh, 1866. Ent. Soc. Phila. Proc. 6: 259. ♂ ♀. Not binomial; name invalid.
Nematus salicis-pisum Thomas, 1881. State Ent. Ill. Rpt. 10, p. 68. Larva, gall.

serissimae Rohwer. Ont. Host: Petiole gall of *Salix serissima.*
Euura serissimae Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 240. ♀.

Genus AMAURONEMATUS Konow

Amauronematus Konow, 1890. Deut. Ent. Ztschr., pp. 233, 237, 246.
Type: *Nematus fallax* Lepeletier. Desig. by Rohwer, 1911.
Pontopristia Malaise, 1921. Ent. Tidskr. 41: 12.
Type: *Pontopristia suavis* var. *fusca* Malaise. Desig. by Ross, 1937.

This genus is in need of revision, and except for a small amount of synonymy, the following is primarily a list of unorganized names.

atrata (MacGillivray), n. comb. Yukon. Host: *Salix arctica.*
Pontania atrata MacGillivray, 1919. Rpt. Canad. Arctic Exped. 1913–1918, v. 3G, p. 6G. ♂.

aulatus MacGillivray. Alaska.
Amauronematus aulatus MacGillivray, 1919. Rpt. Canad. Arctic Exped. 1913–1918, v. 3G, p. 16G.

azaleae Marlatt. N. H. Host: *Azalea.*
Amauronematus azaleae Marlatt, 1896. Canad. Ent. 28: 254. ♂ ♀.

brunneus (Norton). Colo.
Nematus brunneus Norton, 1864. Ent. Soc. Phila. Proc. 4: 8. ♀.

cogitatus MacGillivray. Alaska.
Amauronematus cogitatus MacGillivray, 1919. Rpt. Canad. Arctic Exped. 1913–1918, v. 3G, p. 15G.

completus MacGillivray. Alaska.
Amauronematus completus MacGillivray, 1919. Rpt. Canad. Arctic Exped. 1913–1918, v. 3G, p. 13G.

comstocki Marlatt. N. Y.
Amauronematus comstocki Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 77. ♀.

cooki Marlatt. Mich.
Amauronematus cooki Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 79. ♂.

digestus MacGillivray. Alaska.
Amauronematus digestus MacGillivray, 1919. Rpt. Canad. Arctic Exped. 1913–1918, v. 3G, p. 14G.

discolor (Cresson). Colo.
Nematus discolor Cresson, 1880. Amer. Ent. Soc. Trans. 8: 8. ♀.

dyari Marlatt. Eastern. Host: *Populus.*
Amauronematus Dyari Marlatt, 1896. Canad. Ent. 28: 255. ♂ ♀.

egeria (MacGillivray), n. comb. Alta.
Pteronidea egeria MacGillivray, 1923. Canad. Ent. 55: 161. ♀.

egnatia (MacGillivray), n. comb. Alta.
Pteronidea egnatia MacGillivray, 1923. Canad. Ent. 55: 162. ♀.

enavata (MacGillivray), n. comb. Maine.
Pteronidea enavata MacGillivray, 1920. Canad. Ent. 52: 236. ♀.

excavatus Marlatt. Locality unknown.
Amauronematus excavatus Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech Ser. 3: 85. ♀.

fulvipes (Norton). Northeastern.
Nematus fulvipes Norton, 1861. Boston. Soc. Nat. Hist. Proc. 8: 159. ♂.

gracilis Marlatt. Northeastern.
Amauronematus gracilis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 78. ♀.

indicatus MacGillivray. Alaska (Camden Bay).
Amauronematus indicatus MacGillivray, 1919. Rpt. Canad. Arctic Exped. 1913–1918, v. 3G, p. 14G.

isolatus Kincaid. Alaska.
Amauronematus isolatus Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 358. ♀.
Amauronematus veridicus MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 170. ♀. N. syn.

knabi Rohwer. Sask.
Amauronematus knabi Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 244. ♀.

kukukiana (Kincaid), n. comb. Alaska.
Pontania kukukiana Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 356. ♀.

lineatus (Harrington). Eastern, west to Alta.
Nematus lineatus Harrington, 1893. Canad. Ent. 25: 59. ♀.

lorata (MacGillivray), n. comb. Yukon. Host: Galls of *Salix arctica*.
Pontania lorata MacGillivray, 1919. Rpt. Canad. Arctic Exped. 1913–1918, v. 3G, p. 8G. ♂.

luteipes (Cresson). Nev.
Nematus luteipes Cresson, 1880. Amer. Ent. Soc. Trans. 8: 6. ♀.

luteotergum (Norton). Eastern, west to Ill. Host: *Alnus*.
Nematus luteotergum Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 161. ♀.
Nematus fur Walsh, 1866. Ent. Soc. Phila. Proc. 6: 263. ♂.
Nematus concolor Norton, 1867. Amer. Ent. Soc. Trans. 1: 196. ♂.
Nematus violaceipennis Norton, 1867. Amer. Ent. Soc. Trans. 1: 201. ♂.
Amauronematus vescus MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29: 30. ♀ N. syn.
Amauronematus viscendus MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29: 28. ♂ ♀. N. syn.

magnus MacGillivray. N. W. T.
Amauronematus magnus MacGillivray, 1919. Rpt. Canad. Arctic Exped. 1913–1918, v. 3G, p. 17G.

melanostoma (Rohwer), n. comb. St. George. Isl., Bering Sea.
Pteronidea melanostoma Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 212. ♀.

nigrofemoratus (Cresson). Nev.
Nematus nigrofemoratus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 4. ♀.

nortonii (Dalla Torre). Labrador.
Nematus fallax Norton, 1867. Amer. Ent. Soc. Trans. 1: 198. ♂. Preocc.
Nematus nortonii Dalla Torre, 1894. Cat. Hym., v. 1, p. 246. N. name for *fallax* Norton.

orbitalis Marlatt. Colo., Oreg.
Amauronematus orbitalis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 80. ♀.

oregonensis Marlatt. Oreg.
Amauronematus oregonensis Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 80. ♀.

pectoralis (Cresson). Colo., Nev.
Nematus pectoralis Cresson, 1880. Ent. Amer. Soc. Trans. 8: 9. ♀.

peninsularis (Kincaid), n. comb. Alaska.
Pontania peninsularis Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 354. ♀.
(?)*Pontania islandica* Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 355. ♀.

proximatus (Norton), n. comb. Mass., Maine.
Nematus proximatus Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 12. ♀

rapax (Cresson). Nev.
Nematus rapax Cresson, 1880. Amer. Ent. Soc. Trans. 8: 4. ♂.

shumagensis (Kincaid), n. comb. Alaska.
Pteronus shumagensis Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 357. ♀.

similis Marlatt. N. H. Host: *Salix.*
Amauronematus similis Marlatt, 1896. Canad. Ent. 28: 255. ♀.

suavis (Ruthe). Subarctic; holarctic.
Nematus suavis Ruthe, 1859. Stettin. Ent. Ztg. 20: 308.
Pontania atra Marlatt, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 3: 37. ♀ N. syn.
Pontania maura Rohwer, 1908. Canad. Ent. 40: 47. ♀. N. syn.
Pontopristia kamtchatica Malaise, 1931. Arch. f. Zool. 23A: 53. ♀.

subatratus (MacGillivray), n. comb. Alaska.
Pontania subatrata MacGillivray, 1921. Calif. Acad. Sci. Proc. (ser. 4) 11: 189. ♂.

subloratus (MacGillivray), n. comb. Alaska.
Pontania sublorata MacGillivray, 1921. Calif. Acad. Sci. Proc. (ser. 4) 11: 190. ♂.

unga (Kincaid), n. comb. Alaska.
Pontania unga Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 354. ♀.

varianus MacGillivray.
Amauronematus varianus MacGillivray, 1919. Rpt. Canad. Arctic Exped. 1913–1918, v. 3G, p. 16G.

veneficus MacGillivray. Alaska.
Amauronematus veneficus MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 169. ♀.

venerandus MacGillivray. Maine.
Amauronematus venerandus MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29: 30. ♂.

ventosus MacGillivray. Alaska.
Amauronematus ventosus MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 169. ♀.

verbosus MacGillivray. Maine.
Amauronematus verbosus MacGillivray, 1921. N. Y. Ent. Soc. Jour. 29: 29. ♀.

vicinalis (Cresson). Calif.
Nematus vicinalis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 4. ♀.

whitneyi Rohwer. Alaska.
Amauronematus whitneyi Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 216. ♀.

xanthus Rohwer. Nebr.
Amauronematus xanthus Rohwer, 1909. Canad. Ent. 41: 18. ♀.

Tribe PSEUDODINEURINI

Genus PSEUDODINEURA Konow

Dolerus subg. *Pelmatopus* Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 244. Preocc.
Type: *Dolerus* (*Pelmatopus*) *minutus* Hartig. Monob.
Pseudodineura Konow, 1885. Wien. Ent. Ztg. 4: 297.
Type: *Tenthredo* (*Allantus*) *parvula* Klug. Desig. by Rohwer, 1911.

parva (Norton). Eastern, west to Ill. Host: Leaf mine in *Hepatica.*
Dineura parvus Norton, 1867. Amer. Ent. Soc. Trans. 1: 241. ♂.

Genus KERITA Ross

Kerita Ross, 1937. Ill. Biol. Monog. 15 (2): 80.
Type: *Kerita fidala* Ross. Orig. desig.

fidala Ross. Ill. Host: Leaf mine in *Mertensia.*
Kerita fidala Ross, 1937. Ill. Biol. Monog. 15 (2): 80. ♀.

Tribe PRISTOLINI

Genus PRISTOLA Ross

Pristola Ross, 1945. Pan-Pacific Ent. 21: 153.
Type: ***Pristola macnabi*** Ross. Orig. desig.

macnabi Ross. N. H., Oreg.
Pristola macnabi Ross, 1945. Pan-Pacific Ent. 21: 154. ♂ ♀.

Unplaced Nematinae

The following species are of questionable generic assignment at the present time due either to inadequacy of description or inaccessibility of types.

Nematus ***calais*** Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 144. ♀. Arctic America, Mackenzie River.

Nematus ***castaneus*** Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 147. ♀. Hudson Bay, Canada, St. Martin's Falls, Albany River.

Nematus ***crassus*** Eschscholtz, 1822. Entomographien, p. 213. Isle of Unalaska, Alaska. Preocc.; see *obtusus* Kirby.

Nematus ***extraneus*** Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 142. ♀. Hudson Bay, Canada, St. Martin's Falls, Albany River.

Nematus ***hudsonicus*** Norton, 1867. Amer. Ent. Soc. Trans. 1: 207. ♀. Fort Good Hope, MacKenzie River, N. W. T., Canada.

Nematus ***inconspicuus*** Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 141. ♀. New York.

Nematus ***inquilinus*** Walsh, 1866. Ent. Soc. Phila. Proc. 6: 260. ♂ ♀. Rock Island, Ill.

Nematus ***lateralis*** Norton, 1867. Amer. Ent. Soc. Trans. 1: 211. ♀. Maine, N. Y.

Nematus ***longicornis*** Eschscholtz, 1822. Entomographien, p. 98. Unalaska Isl., Alaska.

Nematus ***longicornis*** Say, 1835. Boston Jour. Nat. Hist. 1: 219. Iowa. Preocc.; see *longulicornis* Norton.

Nematus ***longulicornis*** Norton, 1867. Amer. Ent. Soc. Trans. 1: 214. N. name for *Nematus longicornis* Say.

Nematus ***malacus*** Norton, 1867. Amer. Ent. Soc. Trans. 1: 196. ♀. Labrador.

Nematus ***monela*** Norton, 1867. Amer. Ent. Soc. Trans. 1: 198. ♂. Labrador.

Nematus ***monochroma*** Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 161. ♀. Mass.

Nematus ***neglectus*** Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 147. ♀. Hudson Bay, St. Martin's Falls, Canada.

Nematus ***nigritus*** Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 159. ♂. Conn.

Nematus ***obscurus*** Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 160. ♀. Mass.

Nematus ***obtusus*** Kirby, 1882. List Hym Brit. Mus., v. 1, p. 148. N. name for *Nematus crassus* Eschscholtz.

Nematus ***rufo-fasciatus*** Norton, 1867. Amer. Ent. Soc. Trans. 1: 205. ♀. Mackenzie River, N. W. T., Canada.

Nematus ***satkatchewan*** Norton, 1867. Amer. Ent. Soc. Trans. 1: 200. ♀. "Lake Sathkatchewan", Canada.

Nematus salicis-desmodioides Dalla Torre, 1894. Cat. Hym., v. 1, p. 259. N. name for *Nematus s. desmodioides* Walsh, 1866. Ent. Soc. Phila. Proc. 6: 257. Invalid polynomial.

Nematus stigmatus Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 161. ♀. Mass.

Nematus sumptus Norton, 1867. Amer. Ent. Soc. Trans. 1: 207. ♂. Maine.

Nematus trifurcatus Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 148. ♀. Hudson Bay, Canada, St. Martin's Falls, Albany River.

Nematus vertebratus Say, 1836. Boston Jour. Nat. Hist. 1: 218. ♀. Ind.

Subfamily ALLANTINAE

Tribe ALLANTINI

Genus EMPRIA Lepeletier

Revision: Ross, 1936. Pan-Pacific Ent. 12: 172–178.

Subgenus EMPRIA Lepeletier

Empria Lepeletier, 1828. Encycl. Meth., Dict. Ins., p. 571.
Type: ***Dolerus (Empria) pallimacula*** Lepeletier. Desig. by Brullé, 1846.
Poecilostoma Dahlbom, 1835. Conspectus Tenthred., Siricid., Oryssin. Scand., p. 13.
Type: ***Tenthredo guttatum*** Fallén. Desig. by Rohwer, 1911.
Prosecris Gistel, 1848. Naturgesch. Thierr. f. höh. Schul., p. 10. N. name for *Poecilostoma.*
Poecilosoma Thomson, 1870. Opusc. Ent. 2: 265. Emendation of *Poecilostoma.*
Poecilostomidea Ashmead, 1898. Canad. Ent. 30: 256.
Type: ***Emphytus maculatus*** Norton. Orig. desig.
Tetratneura Ashmead, 1898. Canad. Ent. 30: 256.
Type: ***Selandria ignotus*** Norton. Orig. desig.
Tetraneura Konow, 1905. Gen. Ins., fasc. 29, pp. 102, 171. Emend. Preocc.
Empria subg. ***Triempria*** Enslin, 1914. Deut. Ent. Ztschr., Beih., p. 213.
Type: ***Empria tridens*** Konow. Orig. desig.

coryli (Dyar). Northeastern, Mo. to N. Y. Host: *Corylus.*
Harpiphorus maculatus var. ***coryli*** Dyar, 1897. N. Y. Ent. Soc. Jour. 5: 194. ♀.
Empria mellipes Rohwer, 1910. Canad. Ent. 42: 175. ♀.
Empria caetrata MacGillivray, 1911. Canad. Ent. 43: 305. ♀.

ignota (Norton). Transcont., north. U. S. and Canada.
Selandria ignotus Norton, 1867. Amer. Ent. Soc. Trans. 1: 257. ♀.
Monostegia kincaidi MacGillivray, 1893. Canad. Ent. 25: 239. ♀.
Empria calda MacGillivray, 1911. Canad. Ent. 43: 307. ♀.
Empria cata MacGillivray, 1911. Canad. Ent. 43: 307. ♂.
Empria castigata MacGillivray, 1911. Canad. Ent. 43: 309. ♀.
Empria casca MacGillivray, 1911. Canad. Ent. 43: 310. ♂.
Empria evecta MacGillivray, 1911. Canad. Ent. 43: 310. ♀.
Empria confirmata MacGillivray, 1911. Canad. Ent. 43: 341. ♀.
Empria concitata MacGillivray, 1911. Canad. Ent. 43: 342. ♂.
Empria culpata MacGillivray, 1911. Canad. Ent. 43: 343. ♀.
Empria cerina MacGillivray, 1921. Psyche 28: 34. ♂ ♀.
Empria cirrha MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 16. ♀.
Empria cithara MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 17. ♀.

improba (Cresson). Alta., B. C., Colo., Man., Maine.
Emphytus improbus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 11. ♀.
Empria salicis Rohwer, 1910. Canad. Ent. 42: 174. ♂ ♀.
Empria contexta MacGillivray, 1911. Canad. Ent. 43: 345. ♀.

maculata (Norton). Transcont. and widespread. Host: *Fragaria* and other Rosaceae.

Emphytus maculatus Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 157. ♂ ♀.
Poecilostoma convexa MacGillivray, 1909. Canad. Ent. 41: 402. ♀.
Empria distincta Rohwer, 1910. Canad. Ent. 42: 173. ♀.
Empria submaculata Rohwer, 1910. Canad. Ent. 42: 174. ♂ ♀.
Empria melanostoma Rohwer, 1910. Canad. Ent. 42: 175. ♂ ♀.
Monosoma maura Rohwer, 1910. U. S. Natl. Mus. Proc. 38: 204. ♀.
Empria callosa MacGillivray, 1911. Canad. Ent. 43: 305. ♀.
Empria celsa MacGillivray, 1911. Canad. Ent. 43: 306. ♀.
Empria callida MacGillivray, 1911. Canad. Ent. 43: 306. ♀.
Empria caprina MacGillivray, 1911. Canad. Ent. 43: 307. ♂ ♀.
Empria casta MacGillivray, 1911. Canad. Ent. 43: 308. ♂ ♀.
Empria celebrata MacGillivray, 1911. Canad. Ent. 43: 308. ♀.
Empria captiosa MacGillivray, 1911. Canad. Ent. 43: 308. ♀.
Empria caeca MacGillivray, 1911. Canad. Ent. 43: 308. ♀.
Empria cariosa MacGillivray, 1911. Canad. Ent. 43: 309. ♀.
Empria candidula MacGillivray, 1911. Canad. Ent. 43: 310. ♀.
Empria canora MacGillivray, 1911. Canad. Ent. 43: 310. ♀.
Empria cauta MacGillivray, 1911. Canad. Ent. 43: 311. ♀.
Empria condensa MacGillivray, 1911. Canad. Ent. 43: 342. ♀.
Empria cumulata MacGillivray, 1911. Canad. Ent. 43: 343. ♀.
Empria curata MacGillivray, 1911. Canad. Ent. 43: 345. ♀.
Empria cuneata MacGillivray, 1911. Canad. Ent. 43: 345. ♀.
Empria cupida MacGillivray, 1911. Canad. Ent. 43: 346. ♀.
Empria schwarzi Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 398. ♀.
Empria cadurca MacGillivray, 1923. Canad. Ent. 55: 158. ♂ ♀.

nordica Ross. Man. and N. W. T., Canada.

Empria nordica Ross, 1936. Pan-Pacific Ent. 12: 175. ♀.

obscurata (Cresson) complex. Widespread over No. Amer. Larval characters indicate that two species are included in this complex but to date no satisfactory characters have been found to separate the adults, which will be necessary for segregation of type specimens involved.

Selandria obscurata Cresson, 1880. Amer. Ent. Soc. Trans. 8: 15. ♂ ♀.
Poecilosoma punctulata Weldon, 1907. Canad. Ent. 39: 304. ♂ ♀.
Empria affinis Rohwer, 1910. Canad. Ent. 42: 173. ♀.
Empria caudelli Rohwer, 1910. Canad. Ent. 42: 173. ♀.
Empria arizonensis Rohwer, 1910. Canad. Ent. 42: 174. ♀.
Empria cava MacGillivray, 1911. Canad. Ent. 43: 306. ♀.
Empria cauduca MacGillivray, 1911. Canad. Ent. 43: 309. ♀.
Empria capillata MacGillivray, 1911. Canad. Ent. 43: 341. ♀.
Empria condita MacGillivray, 1911. Canad. Ent. 43: 342. ♀.
Empria contorta MacGillivray, 1911. Canad. Ent. 43: 343. ♀.
Empria conferta MacGillivray, 1911. Canad. Ent. 43: 344. ♀.
Empria concreta MacGillivray, 1911. Canad. Ent. 43: 344. ♀.
Empria conciliata MacGillivray, 1911. Canad. Ent. 43: 344. ♀.
Empria concisa MacGillivray, 1911. Canad. Ent. 43: 346. ♀.
Empria costata MacGillivray, 1914. Canad. Ent. 46: 103. ♀.
Empria fragariae Rohwer, 1914. Jour. Econ. Ent. 7: 479. ♀.
Empria cista MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 16. ♀.
Empria cistula MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 16. ♀.

Subgenus PARATAXONUS MacGillivray

Parataxonus MacGillivray, 1908. Canad. Ent. 40: 367.
Type: ***Taxonus multicolor*** Norton. Orig. desig.
Leucempria Enslin, 1913. Deut. Ent. Ztschr., Beih., p. 187.
Type: ***Tenthredo candidula*** Fallén. Orig. desig.

multicolor (Norton). Transcont.

Strongylogaster multicolor Norton, 1862. Boston Soc. Nat. Hist. Proc. 9: 120. ♂ ♀.
Emphytus hullensis Provancher, 1885. Addit. Corr. Faune Ent. Canada Hym., p. 25. ♂.

Eriocampa superba Provancher, 1885. Addit. Corr. Faune Ent. Canada Hym., p. 351. ♀.
Empria carbasea MacGillivray, 1911. Canad. Ent. 43: 341. ♀.
Aphilodyctium maculatum Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 408. ♀.
Aphilodyctium multicolor erythrogastrum Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 408. ♂ ♀.

Genus MONOSTEGIA O. Costa

Monostegia O. Costa, 1859. Fauna del Regno di Napoli, Imen., pt. 3, p. 60.
Type: ***Tenthredo (Allantus) lateola*** Klug. Pres. desig.
Monsoma MacGillivray, 1908. Canad. Ent. 40: 368. N. syn.
Type: ***Taxonus inferentia*** Norton. Orig. desig.
Monosoma Viereck, 1910. N. J. State Mus., Ann. Rpt. 1909, p. 583. Emend. of *Monsoma*.

abdominalis (Fabricius). European; east. U. S. Host: *Lysimachia* and *Anagallis*.
Tenthredo abdominalis Fabricius, 1798. Sup. Ent. System., p. 216. ♀.
Monostegia martini MacGillivray, 1908. Canad. Ent. 40: 366. ♀.
Monostegia nearctica Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 209. ♂ ♀.

inferentia (Norton). Northeastern, west to Ill. Host: *Alnus*.
Poecilostoma inferentia Norton, 1868. Amer. Ent. Soc. Trans. 2: 224. ♂.
(?)***Monophadnus lineatus*** Kirby, 1882. List Hym. Brit. Mus. 1: 177. ♀.
Monosoma inferentia var. ***andronosa*** Ross, 1932. Canad. Ent. 64: 249. ♀.

Genus AMETASTEGIA A. Costa

Revision: Ross, 1937. Arb. über Morph. u. Taxonom. Ent. 4: 84–91.

Subgenus AMETASTEGIA A. Costa

Ametastegia A. Costa, 1882. Accad. delle Sci. Fis. e Mat. Napoli, Rend. 21 (10): 198.
Type: ***Ametastegia fulvipes*** S. Costa. Monob.
Aomodyctium Ashmead, 1898. Canad. Ent. 30: 309.
Type: ***Strongylogaster abnormis*** Provancher. Monob.
Unitaxonus MacGillivray, 1921. Psyche 28: 32.
Type: ***Unitaxonus repentinus*** MacGillivray. Orig. desig.

equiseti (Fallén). Holarctic. Host: *Rumex; Polygonum*.
Tenthredo equiseti Fallén. 1808, Svenska Vetensk. Akad. Handl. 29: 60.
Taxonus innominatus MacGillivray, 1901. N. Y. State Mus. Bul. 47: 585. ♀.
Strongylogastroidea depressata MacGillivray, 1921. Psyche 28: 31. ♀.
Unitaxonus repentinus MacGillivray, 1921. Psyche 28: 31. ♂ ♀.
Unitaxonus rumicis MacGillivray, 1921. Pysche 28: 31. ♀.
Hemitaxonus deditius MacGillivray, 1923. Psyche 30: 77. ♂.
Strongylogastroidea rufocinctella MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 32. ♀.

glabrata (Fallén). Holarctic. Host: *Rumex*.
Tenthredo glabrata Fallén, 1808. Svenska Vetensk. Akad. Handl. 29: 108.
Taxonus nigrisoma Norton, 1892. Boston Soc. Nat. Hist. Proc. 9: 119. ♀.
Strongylogaster abnormis Provancher, 1889. Addit. Corr. Faune Ent. Canada, Hym., p. 10. ♂ ♀.
Strongylogastroidea potulenta MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 31. ♀.

Subgenus PROTEMPHYTUS Rohwer

Protemphytus Rohwer, 1909. Canad. Ent. 41: 92.
Type: ***Emphytus coloradensis*** Weldon. Monob.
Emphytina Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 399.
Type: ***Emphytina pulchella*** Rohwer. Orig. desig.
Simplemphytus MacGillivray, 1914. Canad. Ent. 46: 363.
Type: ***Simplemphytus pacificus*** MacGillivray. Monob.

coloradensis (Weldon). Colo.
Emphytus coloradensis Weldon, 1907. Canad. Ent. 39: 304. ♂.
Emphytus hiulcus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 15. ♀.

inornata (Say). Southeast. Canad. to Va.
Dolerus inornatus Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, App., p. 319. ♀.
Emphytus halitus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 14. ♀.

pallipes (Spinola). Holarctic. Host: *Viola.*
Tenthredo pallipes Spinola, 1808. Insectorum Liguriae, v. 2, p. 19. ♂ ♀.
Tenthredo pallipes Provancher, 1878. Nat. Canad. 10: 66. ♂ ♀.
Emphytus canadense Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 204. N. name for *pallipes* Provancher.
Empria cavata MacGillivray, 1911. Canad. Ent. 43: 305. ♀.
Empria cetaria MacGillivray, 1921. Psyche 28: 33. ♀.
Emphytus halesus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 13. ♀.
Emphytus heroicus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 14. ♀.
Emphytus hiatus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 14. ♀.
Emphytus hospitus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 15. ♀.
Emphytus hyacinthus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 16. ♀.

recens (Say). Widespread and transcont. Host: *Salix.*
Emphytus recens Say, 1836. Boston Jour. Nat. Hist. 1: 221. ♂.
Emphytus apertus Norton, 1861. Boston Nat. Hist. Soc. Proc. 8: 155. ♀.
Emphytus stramineipes Cresson, 1880. Amer. Ent. Soc. Trans. 8: 52. ♀.
Emphytus angustus Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 360. ♂.
Emphytina pulchella Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 400. ♀.
Emphytina pallidiscapa Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 401. ♂ ♀.
Emphytina virginica Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 401. ♀.
Emphytus yuasi MacGillivray, 1921. Psyche 28: 31. ♀.
(?)***Emphytus luecostoma*** Rohwer, 1908. N. Y. Ent. Soc. Jour. 16: 110. ♀. Preocc.
Emphytina plesia Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 402. N. name for *leucostoma* Rohwer.

tener (Fallen). Holarctic.
Tenthredo tener Fallen, 1808. Svenska Vetensk. Akad. Handl. 29: 109.
Simplemphytus pacificus MacGillivray, 1914. Canad. Ent. 46: 363. ♂ ♀.
Emphytina vanduzeei Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 205. ♀.
Empria columna MacGillivray, 1923. Brooklyn Ent. Soc. Bul. 18: 54. ♀.
Emphytus haliartus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 14. ♀.
Emphytus haustus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 14. ♂.

Genus APHILODYCTIUM Ashmead

Aphilodyctium Ashmead, 1898. Canad. Ent. 30: 310.
Type: ***Strongylogaster rubripes*** Cresson. Orig. desig.
Polytaxonus MacGillivray, 1908. Canad. Ent. 40: 368.
Type: ***Taxonus robustus*** Provancher. Orig. desig.
Revision: Ross, 1937. Arb. über Morph. u. Taxonom. Ent. 4: 90.

fidum (Cresson). West. U. S. and Canada eastward to Mich.
Strongylogaster fidus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 19. ♀.
Strongylogaster rubripes Cresson, 1880. Amer. Ent. Soc. Trans. 8: 20. ♀.
Taxonus robustus Provancher, 1883. Faune Ent. Canada, Hym., p. 743. ♀.
Taxonus parens Provancher, 1889. Addit. Corr. Faune Ent. Canada Hym., p. 9.
Taxonus lenis Rohwer, 1908. N. Y. Ent. Soc. Jour. 16: 110. ♂ ♀.
Aphilodyctium rubripes nigritarsis Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 408. ♂ ♀.
Taxonus inclinatus MacGillivray, 1923. Psyche 30: 78. ♂.

Genus ALLANTUS Panzer

Allantus Panzer, 1801. Faunae Ins. German., v. 82. pl. 12.
Type: ***Tenthredo (Allantus) togatus*** Panzer. Monob.
Emphytus Klug, 1813. Mag. Gesell. Naturf. Freunde Berlin 7: 273.

Type: ***Tenthredo cincta*** Linnaeus. Desig. by Curtis, 1833.
Revision: Ross, 1937. Arb. über Morph. u. Taxonom. Ent. 4: 91.

albolabris (Rohwer). Alaska, B. C., Wash.
Emphytus mellipes var. ***albolabris*** Rohwer, 1917. U. S. Natl. Mus. Proc. 53:152. ♀.
Emphytus gemitus MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 163. ♀.

basalis (Klug). Palaearctic; introduced into east. U. S.
Tenthredo (Emphytus) basalis Klug, 1814. Mag. Gesell. Naturf. Freunde Berlin 8: 282. ♂.
Allantus cinctus nigritibialis Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 407. ♀.

cinctus (Linnaeus). North. U. S. and south. Canada. Host: Rose.
Tenthredo cinctus Linnaeus, 1758. Syst. Nat., Ed. 10, v. 1, p. 557.
Emphytus cinctipes Norton, 1867. Amer. Ent. Soc. Trans. 1: 229. ♂ ♀.

mellipes (Norton). Alta., Colo., Ill., N. B., N. Y., Ont., Que.
Emphytus mellipes Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 155. ♀.
Emphytus gillettei MacGillivray, 1902. Colo. Expt. Sta. Ann. Rpt. 15: 113. ♀.

Genus MACREMPHYTUS MacGillivray

Macremphytus MacGillivray, 1908. Canad. Ent. 40: 368.
Type: ***Harpiphorus varianus*** Norton. Orig. desig.

All reared species of this genus feed on *Cornus* species of the osier dogwood group.

intermedius (Dyar). Eastern. Host: *Cornus*.
Harpiphorus intermedius Dyar, 1900. N. Y. Ent. Soc. Jour. 8: 30.

lovetti MacGillivray, Western. Host: *Cornus stolonifera*.
Macremphytus lovetti MacGillivray, 1923. Psyche 30: 77. ♀.

semicornis (Say). Eastern.
Emphytus semicornis Say, 1836. Boston Jour. Nat. Hist. 1: 220. ♀.
Macremphytus bicornis MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 21. ♀. N. syn.

tarsatus (Say). Eastern, west to Tex.
Emphytus tarsatus Say, 1836. Boston Jour. Nat. Hist. 1: 220. ♀.
Emphytus bollii Norton, 1872. Amer. Ent. Soc. Trans. 4: 80. ♀.

testaceus (Norton). Eastern.
Emphytus (Harpiphorus) testaceus Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 156. ♀.
Emphytus (Harpiphorus) versicolor Norton, 1867. Amer. Ent. Soc. Trans. 1: 230. ♀.

varianus (Norton). Eastern. Host: *Cornus*.
Emphytus (Harpiphorus) varianus Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 156. ♂ ♀.

varipictus (Harrington). Que.
Harpiphorus varipictus Harrington, 1889. Canad. Ent. 21: 96. ♀.

Genus TAXONUS Hartig

Taxonus Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 297.
Type: ***Tenthredo (Allantus) nitida*** Klug. Desig. by Rohwer, 1911.
Ermilia O. Costa, 1859. Fauna del Regno di Napoli, Imen., pt. 3, p. 106.
Type: ***Ermilia pulchella*** O. Costa. Monob.
Strongylogastroidea Ashmead, 1898. Canad. Ent. 30: 308.
Type: ***Allantus apicalis*** Say. Orig. desig.
Parasiobla Ashmead, 1898. Canad. Ent. 30: 308.
Type: ***Allantus rufocinctus*** Norton. Orig. desig.

Hypotaxonus Ashmead, 1898. Canad. Ent. 30: 311.
Type: *Allantus pallipes* Say. Orig. desig.

No host records for nearctic species are available, but the European *agrorum* Fallén, a close relative of our *rufocinctus*, feeds on *Rubus*.

epicera (Say). Eastern and central.
Allantus epicera Say, 1836. Boston Jour. Nat. Hist. 1: 216. ♂.

mellosus (Norton). Eastern.
Allantus mellosus Norton, 1860. Boston Jour. Nat. Hist. 7: 287. ♂ ♀.

pallicoxus (Provancher). Eastern and central.
Tenthredo (Taxonus) unicinctus Norton, 1862. Boston Soc. Nat. Hist. Proc. 9: 119. ♂ ♀. Preocc. by *Tenthredo unicincta* Brulle, 1832.
Strongylogaster pallicoxus Provancher, 1889. Addit. Corr. Faune Ent. Canada Hym., p. 11. ♂ ♀ N. syn.
Strongylogaster pallidicoxis Dalla Torre, 1894. Cat. Hym., v. 1, p. 137. Emend.
Taxonus borealis MacGillivray, 1895. Canad. Ent. 27: 78. ♀.
Strongylogastroidea rufocinctana MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 31. ♀.

pallidicornis (Norton). Eastern and central.
Strongylogaster pallidicornis Norton, 1868. Amer. Ent. Soc. Trans. 2: 216. ♀.

pallipes (Say). Eastern and central.
Allantus pallipes Say, 1823. West. Quart. Rptr. 2: 72.
Strongylogaster pallidipes Dalla Torre, 1894. Cat. Hym., v. 1, p. 137. Emend.
Strongylogastroidea rufula MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 32. ♀.

proximus (Provancher). Eastern and central.
Strongylogaster proximus Provancher, 1889. Addit. Corr. Faune Ent. Canada Hym., p. 12. ♀.
Strongylogastroidea rufinerva MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 31. ♀. N. syn.

rufocinctus (Norton). Eastern and central.
Allantus rufocinctus Norton, 1860. Boston Jour. Nat. Hist. 7: 248. ♂ ♀.
Taxonus (Parasiobla) rufocinctus virginicus Rohwer, 1911. U. S. Nat. Mus. Proc. 41: 405. ♀.
Strongylogastroidea unicinctella MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 33. ♀.

spiculatus (MacGillivray). Eastern.
Strongylogastroidea spiculatus MacGillivray, 1908. Canad. Ent. 40: 369. ♀.

terminalis (Say). Eastern and central.
Tenthredo terminalis Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 318. ♂ ♀.
Allantus apicalis Say, 1836. Boston Jour. Nat. Hist. 1: 216. N. syn.
Allantus abdominalis Norton, 1860. Boston Jour. Nat. Hist. 7: 238. ♂ ♀.
Strongylogaster rufoculus MacGillivray, 1894. Canad. Ent. 26: 327. ♀. N. syn.
Strongylogastroidea confusa MacGillivray, 1908. Canad. Ent. 40: 369. ♀. N. syn.
Strongylogastroidea shermani MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 32. ♀.

Tribe PHRONTOSOMATINI

Genus PHRONTOSOMA MacGillivray

Phrontosoma MacGillivray, 1908. Canad. Ent. 40: 366.
Type: *Phrontosoma atrum* MacGillivray. Orig. desig.

belfragei (Cresson). No. Amer., east of Rocky Mts.
Selandria belfragei Cresson, 1880. Amer. Ent. Soc. Trans. 8: 15. ♀.
Caliroa nortonia MacGillivray, 1894. Canad. Ent. 24: 324. ♂.
Phrontosoma atrum MacGillivray, 1908. Canad. Ent. 40: 367. ♂.
Phrontosoma daeckei MacGillivray, 1908. Canad. Ent. 40: 367. ♀.
Phrontosoma collaris MacGillivray, 1908. Canad. Ent. 40: 367. ♀.

Tribe ERIOCAMPINI

Genus ERIOCAMPA Hartig

Eriocampa Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 279.
Type: *Tenthredo ovata* Linnaeus. Desig. by Rohwer, 1911.

juglandis (Fitch). Eastern and central. Host: *Juglans.*
Selandria? juglandis Fitch, 1857 (1856). N. Y. State Agr. Soc. Trans. 16: 467. Larva.
Sciapteryx rotundus Norton, 1867. Amer. Ent. Soc. Trans. 1: 242. ♀.
Eriocampa rotundiformis Rohwer, 1909. Canad. Ent. 41: 16. ♂. N. syn.

ovata (Linnaeus). Palearctic; introduced into B. C. Host: *Alnus.*
Tenthredo ovata Linnaeus, 1761. Fauna Suecica, Ed. 2, p. 392.

Genus DIMORPHOPTERYX Ashmead

Dimorphopteryx Ashmead, 1898. Canad. Ent. 30: 308.
Type: *Allantus pinguis* Norton. Orig. desig.

abnormis Rohwer. Eastern. Host: Plum.
Dimorphopteryx abnormis Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 406. ♂ ♀.
Dimorphopteryx desidiosus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 10. ♀. N. syn.
Dimorphopteryx ithacus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 10. ♀. N. syn.
Dimorphopteryx salinus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 11. ♀. N. syn.

castaneae Rohwer. Va. Host: *Castanea.*
Dimorphopteryx castaneae Rohwer, 1915. U. S. Natl. Mus. Proc. 48: 447. ♂ ♀.

melanognathus Rohwer. Eastern, west to ?Colo.
Dimorphopteryx melanognathus Rohwer, 1910. U. S. Natl. Mus. Proc. 38: 205. ♀.
(?)*Dimorphopteryx coloradensis* Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 206. ♀.
Dimorphopteryx enucleatus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 10. ♀. N. syn.
Dimorphopteryx oronis MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 11. ♀. N. syn.

pinguis (Norton). Eastern. Hosts: *Acer; Amelanchier.*
Allantus pinguis Norton, 1860. Boston Jour. Nat. Hist. 7: 244. ♀.
(?)*Sciapteryx punctum* Provancher, 1878. Nat. Canad. 10: 72. ♂.
Dimorphopteryx pinguis errans Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 406. ♂ ♀. N. syn.
Dimorphopteryx pinguis virginica Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 406. ♂ ♀. N. syn.
(?)*Dimorphopteryx autumnalis* Rohwer, 1915. U. S. Natl. Mus. Proc. 48: 447. ♀.
Dimorphopteryx morsei MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 11. ♀. N. syn.
Dimorphopteryx scopulosus MacGillivray, 192? Univ. Bul. 20 (50): 12. ♀. N. syn.

quercivora Rohwer. Wis. Host: *Quercus.*
Dimorphopteryx quercivora Rohwer, 1915. U. S. Natl. Mus. Proc. 48: 448 ♂.

Genus PSEUDOSIOBLA Ashmead

Pseudosiobla Ashmead, 1898. Canad. Ent. 30: 308.
Type: *Allantus excavatus* Norton. Orig. desig.

cephalanthi Rohwer. N. Y. Host: *Cephalanthus occidentalis.*
Pseudosiobla cephalanthi Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 404. ♂ ♀.

excavata (Norton). Eastern and central. Host: *Cephalanthus.*
Allantus excavatus Norton, 1862. Ent. Soc. Phila. Proc. 1: 143. ♀.
(?)*Siobla robusta* Kirby, 1882. List. Hym. Brit. Mus., v. 1, p. 253. ♀.

floridana (Provancher). Fla.
Taxonus floridanus Provancher, 1889. Addit. Corr. Faune Ent. Canada Hym., p. 352. ♂.

Subfamily BLENNOCAMPINAE

Tribe LYCAOTINI

Genus LYCAOTA Konow

Lycaota Konow, 1903. Ztschr. System. Hym. Dipt. 3: 147.
Type: *Selandria sodalis* Cresson. Desig. by Rohwer, 1911.

sodalis (Cresson). B. C., Colo., Sask.
Selandria sodalis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 44. ♀.
Lycaota fusca Rohwer, 1908. Canad. Ent. 40: 180. ♂.

Genus BLENNOGENERIS MacGillivray

Blennogeneris MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 8.
Type: *Blennocampa typicella* MacGillivray. Monob.
Lycaotella Ross, 1932. Canad. Ent. 64: 41.
Type: *Selandria (Hoplocampa) spissipes* Cresson. Orig. desig.

coloradensis (Rohwer), n. comb. Colo.
Lycaota coloradensis Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 384. ♀.

spissipes (Cresson). Western, eastward to Man. Host: Terminal bud gall on *Symphoricarpos racemosa.*
Selandria spissipes Cresson, 1880. Amer. Ent. Soc. Trans. 8: 14. ♀.
Selandria lenis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 14. ♂.
Lycaota spissipes brunneus Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 384. ♀.
Blennocampa typicella MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 8. ♂.

Tribe BLENNOCAMPINI

Genus TOMOSTETHUS Konow

Tomostethus Konow, 1886. Wien. Ent. Ztg. 5: 184, 214.
Type: *Tenthredo nigrita* Fabricius. Desig. by Rohwer, 1911.

multicinctus (Rohwer). D. C., Ill., Kans. Host: *Fraxinus.*
Monophadnus multicinctus Rohwer, 1909. Canad. Ent. 41: 90. ♂.

Genus TETHIDA Ross

Tethida Ross, 1937. Ill. Biol. Monog. 15 (2): 96.
Type: *Tenthredo cordigera* Beauvois. Orig desig..

cordigera (Beauvois). Eastern, west to Great Plains. Host: *Fraxinus.*
Tenthredo cordigera Beauvois, 1805. Ins. Afr. Amer., p. 97. ♀.
Tenthredo bardus Say, 1836. Boston Jour. Nat. Hist. 1: 218. ♀.
Selandria dubia Cresson, 1865. Ent. Soc. Phila. Proc. 4: 244. ♀.

Genus EUTOMOSTETHUS Enslin

Tomostethus subg. *Eutomostethus* Enslin, 1914. Deut. Ent. Ztschr., p. 286.
Type: *Tenthredo luteiventris* Klug. Orig. desig.
Tomostethus subg. *Atomostethus* Enslin, 1914. Deut. Ent. Ztschr., p. 287.
Type: *Tenthredo ephippium* Panzer. Orig. desig.

ephippium (Panzer). Holarctic, widespread in No. Amer.
Tenthredo ephippium Panzer, 1798. Faunae Ins. German., heft 52, pl. 5. ♀.
Selandria inhabilis Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 220. ♀.

luteiventris (Klug). Holarctic, widespread in No. Amer.
Tenthredo luteiventris Klug, 1814. Mag. Gesell. Naturf. Freunde Berlin 8: 56. ♀.

Genus STETHOMOSTUS Benson

Stethomostus Benson, 1939. Ent. Monthly Mag. 75: 111.
Type: *Tomostethus fuliginosus* (Schrank). Orig. desig.

fuliginosus (Schrank). Mass., N. Y. Introduced from Europe.
Tenthredo fuliginosa Schrank, 1781. Enum. Ins. Austriae, p. 334.

Genus PARACHARACTUS MacGillivray

Paracharactus MacGillivray, 1908. Canad. Ent. 40: 292.
Type: *Paracharactus obscuratus* MacGillivray. Orig. desig.

niger (Harrington), n. comb. Eastern, west to Iowa. Host: *Carex.*
Phymatocera nigra Harrington, 1889. Canad. Ent. 21: 96. ♀.
Monophadnus distinctus MacGillivray, 1908. Canad. Ent. 40: 291. ♀. N. syn.
Tomostethus nortonii MacGillivray, 1908. Canad. Ent. 40: 291. ♀. N. syn.

rudis (Norton), n. comb. Widespread over No. Amer.
Selandria rudis Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 221. ♀.
Selandria montivaga Cresson, 1880. Amer. Ent. Soc. Trans. 8: 13. ♀. N. syn.
Paracharactus obscuratus MacGillivray, 1908. Canad. Ent. 40: 293. ♂ ♀. N. syn.

Genus CERATULUS MacGillivray

Ceratulus MacGillivray, 1908. Canad. Ent. 40: 454.
Type: *Ceratulus spectabilis* MacGillivray. Orig. desig.

spectabilis MacGillivray. Tex. Host: *Cissus incisa.*
Ceratulus spectabilis MacGillivray, 1908. Canad. Ent. 40: 454. ♂ ♀.

Genus LAGONIS Ross

Lagonis Ross, 1937. Ill. Biol. Monog. 15 (2): 99.
Type: *Selandria nevadensis* Cresson. Orig. desig.

nevadensis (Cresson). Western, Nev. to B. C.
Selandria nevadensis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 13. ♀.
Paracharactus leucostomus Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 230. ♀.

Genus PAREOPHORA Konow

Pareophora Konow, 1886. Wien. Ent. Ztg. 5: 184, 187.
Type: *Tenthredo* (*Allantus*) *luridiventris* Klug. Desig. by Rohwer, 1911.

minuta (MacGillivray). Ark., Ill., Wis.
Monophadnus minutus MacGillivray, 1908. Canad. Ent. 40: 291. ♀.
Pareophora guana MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 28. ♂.
Pareophora guara MacGillivray, 1923. Brooklyn Ent. Soc. Bul. 18: 54. ♀.

spiraeae (Dyar). N. Y. Host: *Spiraea salicifolia.*
Blennocampa spiraeae Dyar, 1895. Canad. Ent. 27: 194. ♂ ♀, larva.

Genus RHADINOCERAEA Konow

Rhadinoceraea Konow, 1886. Wien. Ent. Ztg. 5: 184, 211.
Type: *Tenthredo (Allantus) micans* Klug. Desig. by Rohwer, 1911.

Known host genera include *Iris* and *Veratrum viride*, but no definite records are available for individual species.

aldrichi (MacGillivray), n. comb. Idaho.
Pareophora aldrichi MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 28. ♂ ♀.

insularis (Kincaid), n. comb. Alaska.
Monophadnus insularis Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 346. ♂.

nigra (Rohwer), n. comb. Calif.
Paracharactus niger Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 231. ♀.

nubilipennis (Norton), n. comb. Eastern, west to Ill.
Selandria nubilipennis Norton, 1867. Amer. Ent. Soc. Trans. 1: 252. ♂ ♀.
Neopareophora scelesta MacGillivray, 1908. Canad. Ent. 40: 289. ♀. Preocc. N. syn.
Monophadnus planus MacGillivray, 1921. Brooklyn Ent. Soc. Bul. 16: 23. ♂.

scelesta (Cresson), n. comb. Nev., Colo.
Selandria scelesta Cresson, 1880. Amer. Ent. Soc. Trans. 8: 14. ♂.

Genus PHYMATOCERA Dahlbom

Phymatocera Dahlbom, 1835. Conspectus Tenthred., Siricid., Oryssin. Scand. p. 11.
Type: *Tenthredo (Allantus) aterrima* Klug. Monob.
Pectinia Brullé, 1846. Hist. Nat. Ins., Hym., p. 664.
Type: *Tenthredo (Allantus) aterrima* Klug. Orig. desig.
Melanoselandria Ashmead, 1900 (1899). N. J. State Bd. Agr. Ann. Rpt. 27: 606.
Type: *melanoselandria zabriskiei* Ashmead. Monob.
Hypargyricus MacGillivray, 1908. Canad. Ent. 40: 290.
Type: *Hypargyricus infuscatus* MacGillivray. Orig. desig.

So far as is known, species of this genus feed on species of *Smilacina.*

fumipennis (Norton). Eastern.
Selandria fumipennis Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 222. ♂ ♀.
Hypargyricus infuscatus MacGillivray, 1908. Canad. Ent. 40: 290. ♀. N. syn.
Rhadinoceraea similata MacGillivray, 1908. Canad. Ent. 40: 290. ♂ ♀. N. syn.

lucida (Rohwer), n. comb. Wis.
Rhadinoceraea lucida Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 229. ♀.

rufula (Norton). Conn.
Selandria rufula Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 221. ♂.

ruscullus (MacGillivray), n. comb. Oreg.
Monophadnus ruscullus MacGillivray, 1923. Psyche 30: 80. ♂.
Paracharactus offensus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 28. ♀. N. syn.

Genus PERICLISTA Konow[4]

All species of this genus, whose life histories are known, feed as larvae on the leaves of *Quercus* and *Carya.*

[4]By L. J. Stannard, Illinois Natural History Survey, Urbana, Ill.

Revision: Stannard, 1949. Amer. Ent. Soc. Trans. 75: 7-42.

Subgenus PERICLISTA Konow

Periclista Konow, 1886. Wien. Ent. Ztg. 5: 184, 186.
Type: ***Tenthredo (Allantus) lineolata*** Klug. Desig. by Rohwer, 1911.
Mogerus MacGillivray, 1895. Canad. Ent. 27: 281. N. name proposed unnecessarily for *Periclista* Konow.
Isodyctium Ashmead, 1898. N. Y. Ent. Soc. Jour. 6: 127.
Type: ***Mogerus caryicolus*** Dyar. Orig. desig.
Apericlista Enslin, 1914. Deut. Ent. Ztschr., p. 265.
Type: ***Tenthredo albipennis*** Zaddach. Orig. desig.

albicollis (Norton). Eastern, west to Tex. Hosts: *Quercus alba; Q. velutina.*
Selandria albicollis Norton, 1872. Amer. Ent. Soc. Trans. 4: 85. ♂.
Periclista quercus Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 232. ♂ ♀.

bipartita (Cresson). Eastern, west to Tex. Host: *Quercus coccinea.*
Selandria (Blennocampa) bipartita Cresson, 1880. Amer. Ent. Soc. Trans. 8: 12. ♂.
Mogerus emarginatus MacGillivray, 1895. Canad. Ent. 25: 281. ♂.
Isodyctium murtfeldtiae Dyar, 1898. N. Y. Ent. Soc. Jour. 6: 135. ♀.

californica Rohwer. Calif.
Periclista californica Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 154. ♀.

caryicola (Dyar). Eastern, west to Iowa and Tex. Host: *Carya.*
Mogerus caryicolus Dyar, 1897. N. Y. Ent. Soc. Jour. 5: 193. ♂ ♀
Is(i)odyctium atratum MacGillivray, 1908. Canad. Ent. 40: 290. ♀.
Periclista hicoriae Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 154. ♀.
Periclista plesia Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 211. ♀.
Periclista pecanivora Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 212. ♀.

diluta (Cresson). Eastern, west to Kans. Host: White oak.
Selandria (Monophadnus) diluta Cresson. Amer. Ent. Soc. Trans. 8: 12. ♀.
Isodyctium subgregarium Dyar. N. Y. Ent. Soc. Jour. 6: 134. ♂ ♀.

electa MacGillivray. Calif., Oreg. Host: Oak.
Periclista electa MacGillivray, 1923. Psyche 30: 80. ♂.

entella MacGillivray. Oreg.
Periclista entella MacGillivray. 1923, Ill. Univ. Bul. 20 (50): 29. ♂.

linea Stannard. Calif., Oreg. Host: *Quercus agrifolia.*
Periclista linea Stannard, 1949. Amer. Ent. Soc. Trans. 75: 19. ♂ ♀.

marginicollis (Norton). Eastern.
Selandria marginicollis Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 220. ♀.

media (Norton). Eastern, west to Ill. Host: *Quercus alba.*
Selandria medius Norton, 1864. Ent. Soc. Phila. Proc. 3: 9. ♂ ♀.
Selandria (Blennocampa) floridana Cresson, 1880. Amer. Ent. Soc. Trans. 8: 12. ♂.
Periclista purpuridorsum Dyar, 1898. N. Y. Ent. Soc. Jour. 6: 129. ♂ ♀.
Periclista confusa MacGillivray, 1908. Canad. Ent. 40: 291. ♀.
Periclista similaris Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 155. ♀.

mutabilis Konow. Tex.
Periclista mutabilis Konow, 1904. Ztschr. System. Hym. Dipt. 6: 241. ♂ ♀.

naranga Stannard. Calif.
Periclista naranga Stannard, 1949. Amer. Ent. Soc. Trans. 75: 20. ♀.

rileyi (Cresson). Fla., Ill., Mo.
Selandria (Monophadnus) Rileyi Cresson, 1880. Amer. Ent. Soc. Trans. 8: 13. ♀.
Isodyctium floridense Dyar, 1898. N. Y. Ent. Soc. Jour. 6: 134. ♀.

spicula Stannard. Calif.

Periclista spicula Stannard, 1949. Amer. Ent. Soc. Trans. 75: 21. ♂.

sulfurana Stannard. Eastern, west to Great Plains. Host: *Quercus* sp.
Periclista sulfurana Stannard, 1949. Amer. Ent. Soc. Trans. 75: 28. ♂ ♀.

vergorba Stannard. Calif.
Periclista vergorba Stannard, 1949. Amer. Ent. Soc. Trans. 75: 32. ♀.

Subgenus NEOCHARACTUS MacGillivray

Neocharactus MacGillivray, 1908. Canad. Ent. 40: 293.
Type: ***Neocharactus bakeri*** MacGillivray. Monob.
Alphanisus MacGillivray, 1908. Canad. Ent. 40: 295.
Type: ***Aphanisus lobatus*** MacGillivray. Orig. desig.

bakeri (MacGillivray). Calif.
Neocharactus bakeri MacGillivray, 1908. Canad. Ent. 40: 293. ♂.
Periclista leucostoma Rohwer, 1909. Canad. Ent. 41: 397. ♂ ♀

inaequidens (Norton). Eastern, west to Tex. Host: *Quercus alba.*
Selandria inaequidens Norton, 1872. Amer. Ent. Soc. Trans. 4: 84. ♀.
Isodyctium infrequens Dyar, 1898. N. Y. Ent. Soc. Jour. 6: 134. ♀.
Periclista xanthognatha Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 156. ♀.

occidentalis Rohwer. Calif. Host: *Quercus wislizenii.*
Periclista occidentalis Rohwer, 1909. Canad. Ent. 41: 398. ♂ ♀.

subtruncata Dyar. Eastern, west to Tex. Host: *Quercus coccinea.*
Periclista subtruncata Dyar, 1898. N. Y. Ent. Soc. Jour. 6: 131. ♀.
Aphanisus lobatus MacGillivray, 1908. Canad. Ent. 40: 295. ♀.
Aphanisus muricatus MacGillivray, 1908. Canad. Ent. 40: 296. ♀.

Genus ARDIS Konow[5]

Ardis Konow, 1886. Wien. Ent. Ztg. 5: 184, 188.
Type: ***Tenthredo (Allantus) bipunctata*** Klug. Desig. by Rohwer, 1911.
Valco Ross, 1937. Ill. Biol. Monog. 15 (2): 99.
Type: ***Selandria irrogata*** Cresson. Orig. desig.

The species in this genus are in need of revision; some entries in the following list undoubtedly will prove to be synonyms.

chionanthi (Dyar). Mo. Host: *Chionanthus.*
Periclista chionanthi Dyar, 1898. N. Y. Ent. Soc. Jour. 6: 132. ♀. Larva.

circina (MacGillivray), n. comb. Wash.
Monphadnoides circinus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 24. ♂.

irrogata (Cresson), n. comb. Colo.
Selandria irrogata Cresson, 1880. Amer. Ent. Soc. Trans. 8: 13. ♀.

obtenta (MacGillivray), n. comb. Oreg.
Paracharactus obtentus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 28. ♀.

odorata (MacGillivray), n. comb. Man., N. Y. Host: *Rosa.*
Aphanisus odoratus MacGillivray, 1908. Canad. Ent. 40: 296. ♀.

parallela (MacGillivray), n. comb. Colo.
Aphanisus parallelus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 7. ♀.

parca (Cresson), n. comb. Tex.
Selandria parca Cresson, 1880. Amer. Ent. Soc. Trans. 8: 13. ♂.

sulcata (Cameron). European; introduced in Wash. Host: *Rosa.*
Blennocampa sulcata Cameron, 1882. Ent. Monthly Mag. 18: 271. ♀.

Genus CLAREMONTIA Rohwer

Claremontia Rohwer, 1909. Canad. Ent. 41: 397.
Type: ***Claremontia typica*** Rohwer. Orig. desig.

[5]By Herbert H. Ross, Illinois Natural History Survey, Urbana, Ill.

Monophadnus subg. ***Pseudoblennocampa*** Malaise, 1935. Ent. Tidskr., p. 167. N. syn.
Type: ***Tenthredo (Allantus) tenuicornis*** Klug. Orig. desig.

typica Rohwer. Calif.
Claremontia typica Rohwer, 1909. Canad. Ent. 41: 397. ♀.

Genus MONOPHADNUS Hartig

Monophadnus Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 271.
Type: ***Tenthredo albipes*** Gmelin. Desig. by Ashmead, 1898.

aequalis MacGillivray. Eastern, west to Iowa and Sask.
Monophadnus aequalis MacGillivray, 1908. Canad. Ent. 40: 292. ♀.
Monphadnus bipunctatus MacGillivray, 1908. Canad. Ent. 40: 292. ♀. N. syn.
Monophadnus plicatus MacGillivray, 1908. Canad. Ent. 40: 292. ♂ ♀. N. syn.
Monophadnus transversus MacGillivray, 1908. Canad. Ent. 40: 292. ♀. N. syn.
Monophadnus truncatus Rohwer, 1912. U. S. Natl .Mus. Proc. 43: 232. ♀. N. syn.

aeratus MacGillivray. Oreg.
Monophadnus aeratus MacGillivray, 1923. Psyche 30: 79. ♂.

assaracus MacGillivray. Oreg.
Monophadnus assaracus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 26. ♂.

Genus BLENNOCAMPA Hartig

Blennocampa Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 266.
Type: ***Tenthredo (Allantus) pusilla*** Klug. Desig. by Rohwer, 1911.

atrata MacGillivray. Alaska, Wash.
Blennocampa atrata MacGillivray, 1893. Canad. Ent. 25: 239. ♀.
Erythraspides ashmeadi Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 345. ♂ ♀. N. syn.

conducta (MacGillivray), n. comb. Calif.
Monophadnoides conductus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 24. ♀.

conspiculata (MacGillivray), n. comb. N. Y.
Monophadnoides conspiculata MacGillivray, 1908. Canad. Ent. 40: 293. ♀.

contorta (MacGillivray), n. comb. Idaho, Oreg.
Monophadnoides contorta MacGillivray, 1923. Psyche 30: 78. ♀.
Aphanisus obsitus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 7. ♀. N. syn.
Aphanisus occiduus MacGillivray, 1923. Ill. Univ. Bull. 20 (50): 7. ♀. N. syn.

cordata (MacGillivray), n. comb. Eastern, west to Kans.
Monophadnus cordatus MacGillivray, 1908. Canad. Ent. 40: 294. ♀.
Blennocampa abnorma MacGillivray, 1908. Canad. Ent. 40: 296. ♂. N. syn.
Blennocampa acuminata MacGillivray, 1908. Canad. Ent. 40: 297. ♀. N. syn.
Blennocampa adusta MacGillivray, 1908. Canad. Ent. 40: 297. ♀. N. syn.
Blennocampa angulata MacGillivray, 1908. Canad. Ent. 40: 297. ♀. N. syn.
Blennocampa antennata MacGillivray, 1908. Canad. Ent. 40: 296. ♀. N. syn.
Blennocampa aperta MacGillivray, 1908. Canad. Ent. 40: 297. ♀. N. syn.
Erythraspides tuckeri Rohwer, 1909. Canad. Ent. 41: 145. ♀. N. syn.

nigrisoma (Rohwer), n. comb. Sask.
Paracharactus nigrisomus Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 231. ♂.

Genus MONOPHADNOIDES Ashmead

Monophadnoides Ashmead, 1898. Canad. Ent. 30: 253.
Type: *Monophadnus rubi* Harris. Orig. desig.
Monophadnus subg. *Pseudomonophadnus* Malaise, 1935. Ent. Tidskr. 56: 167.
Type: *Tenthredo geniculata* Hartig. Orig. desig.

geniculatus (Hartig), n. comb. Holarctic; widespread in No. Amer. Host: *Rubus*.
Tenthredo geniculatus Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 274.
Selandria (Hoplocampa) rubi Harris, 1845. Addr. New Dearling, p. 13.
(?)*Selandria nigella* Cresson, 1880. Amer. Ent. Soc. Trans. 8: 12. ♀.
(?)*Monophadnus hudsonicus* Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 176. ♂.
Blennocampa Gillettei Weldon, 1907. Canad. Ent. 39: 304. ♀. N. syn.
Monophadnus atracornus MacGillivray, 1893. Canad. Ent. 25: 239. ♀. N. syn.
Aphanisus nigritus MacGillivray, 1908. Canad. Ent. 40: 296. ♀. N. syn.
Monophadnoides collaris MacGillivray, 1908. Canad. Ent. 40: 295. ♂ ♀. N. syn.
Monophadnoides concessus MacGillivray, 1908. Canad. Ent. 40: 294. ♀. N. syn.
Monophadnoides consobrinus MacGillivray, 1908. Canad. Ent. 40: 294. ♀. N. syn.
Monophadnoides conspersus MacGillivray, 1908. Canad. Ent. 40: 294. ♀. N. syn.
Monophadnoides conspicuus MacGillivray, 1908. Canad. Ent. 40: 293. ♀. N. syn.
Monophadnoides coracinus MacGillivray, 1908. Canad. Ent. 40: 295. ♂. N. syn.
Monophadnoides costalis MacGillivray, 1908. Canad. Ent. 40: 295. ♀. N. syn.
Monophadnoides crassus MacGillivray, 1908. Canad. Ent. 40: 294. ♀. N. syn.
Aphanius (!) *lenis* Rohwer, 1909. Canad. Ent. 41: 399. ♂ ♀. N. syn.
Monophadnoides corytus MacGillivray, 1923. Psyche 30: 79. ♂. N. syn.
Monophadnoides consonus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 25. ♀. N. syn.
Monophadnoides constitutus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 25. ♀. N. syn.
Monophadnoides curiosus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 25. ♀. N. syn.
Monophadnoides kincaidi MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 26. ♀. N. syn.
Monophadnoides shawi MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 26. ♂ ♀. N. syn.
Paracharactus obversus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 28. ♀. N. syn.

Genus ERYTHRASPIDES Ashmead

Erythraspides Ashmead, 1898. *In* Dyar, N. Y. Ent. Soc. Jour. 6: 128.
Type: *Tenthredo pygmaea* Say. Orig. desig.

carbonaria (Cresson). Eastern, west to Tex. and Colo. Host: *Oenothera*.
Selandria carbonaria Cresson, 1880. Amer. Ent. Soc. Trans. 8: 12. ♀.
Selandria parva Cresson, 1880. Amer. Ent. Soc. Trans. 8: 12. ♂. N. syn.
Blennocampa abjecta MacGillivray, 1922. Brooklyn Ent. Soc. Bul. 16: 22. ♀. N. syn.
Blennocampa absona MacGillivray, 1922. Brooklyn Ent. Soc. Bul. 16: 22. ♂ ♀. N. syn.

vitis (Harris). Eastern, west to Ark. Host: *Vitis*.

Tenthredo pygmaea Say, 1824. *In* Keating, Narr. Long's 2nd Exped., App., p. 318. ♂ ♀. Preocc.
Selandria vitis Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., Ed. 1, p. 378.
Selandria caryae Norton, 1869. *In* Packard, Guide Study Ins., p. 224. Adults only; larvae are *Eriocampa*.
Biology: Horsfall, 1929. Ent. News 40: 174–177.

Genus HALIDAMIA Benson

Halidamia Benson, 1939. Ent. Monthly Mag. 75: 111.
Type: ***Blennocampa affinis*** (Fallén). Orig. desig.

affinis (Fallén). European; introduced into N. Y.
Hylotoma affinis Fallén, 1807. Svenska Vetensk. Akad. Handl. 28: 207.

Genus WALDHEIMIA Brullé

Waldheimia Brullé, 1846. Hist. Nat. Ins., Hym., p. 665.
Type: ***Tenthredo brasiliensis*** Lepeletier. Orig. desig.

Unidentified species. Ariz.

Unplaced Species of Blennocampinae

Selandria tiliae Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 221. ♀.

Subfamily TENTHREDININAE

Genus LEUCOPELMONUS MacGillivray

Leucopelmonus MacGillivray, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 83.
Type: ***Leucopelmonus annulatus*** MacGillivray. Monob.

annulicornis (Harrington). Eastern.
Tenthredo confusus Norton, 1869. Amer. Ent. Soc. Trans. 2: 241. ♀. Homonym of *Tenthredo* (*Allantus*) *confusa* Lepeletiér, 1823.
Tenthredopsis annulicornis Harrington, 1893. Canad. Ent. 25: 61. ♂.
Perineura turbata Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 408. ♂ ♀.
Leucopelmonus annulatus MacGillivray, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 83. ♀.

Genus LAGIUM Konow

Lagium Konow, 1904. Ztschr. System. Hym. Dipt. 4: 246.
Type: ***Tenthredo atroviolaceum*** Norton. Orig. desig.

atroviolaceum (Norton). Eastern, west to Ill. Host: *Sambucus*.
Allantus atroviolaceus Norton, 1860. Boston Jour. Nat. Hist. 7: 255. ♂ ♀.
Tenthredo atroviolacea var. ***peratra*** Dyar, 1892. N. Y. Ent. Soc. Jour. 5: 192. ♂. N. syn.
Lagium angulabre Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 215. ♂. N. syn.
Lagium planifrons Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 216. ♂ ♀. N. syn.

tardum (Norton). Eastern, west to Ill.
Allantus tardus Norton, 1860. Boston Jour. Nat. Hist. 7: 246. ♂ ♀.
Lagium erythrogastrum Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 214. ♀. N. syn.

Genus AGLAOSTIGMA Kirby

Aglaostigma Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 325.
Type: ***Aglaostigma eburneiguttatum*** Kirby. Monob.
Laurentia Costa, 1890. Accad. delle Sci. Fis. e Mat. Napoli, Rend. (ser. 2) 4: 173.
Type: ***Laurentia craverii*** Costa. Monob.
Bivena MacGillivray, 1894. Canad. Ent. 24: 328.

Type: ***Bivena maria*** MacGillivray. Orig. desig.
Homoeoneura Ashmead, 1898. Canad. Ent. 30: 313.
Type: ***Pachyprotasis delta*** Provancher. Orig. desig.
Neopus Viereck, 1910. *In* Smith, N. J. State Mus., Ann. Rpt., 1909, p. 585.
Type: ***Tenthredo quattuordecimpunctatus*** Norton. Orig. desig.
Macrophyopsis Enslin, 1913. Deut. Ent. Ztschr., Beih., p. 128.
Type: ***Macrophya nebulosa*** Ed. André. Orig. desig.
Astochus MacGillivray, 1914. Canad. Ent. 46: 107.
Type: ***Astochus fletcheri*** MacGillivray. Orig. desig.
Kincaidia MacGillivray, 1914. Canad. Ent. 46: 137.
Type: ***Tenthredopsis ruficorna*** MacGillivray. Orig. desig.
Parallomma Malaise, 1933. Ent. Tidskr. 54: 53.
Type: ***Rhogogaster lichtwardti*** Konow. Orig. desig.
Neurosiobla Conde, 1935. Notulae Ent. 14: 79.
Type: ***Neurosiobla malaisei*** Conde. Orig. desig.
Revision: Ross, 1943. Ent. Soc. Wash. Proc. 45: 79-84.

dentatum Ross. N. H.
Aglaostigma dentatum Ross, 1943. Ent. Soc. Wash. Proc. 45: 82. ♂ ♀.

dilutum (Cresson). Calif.
Tenthredo dilutus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 24. ♀.

quattuordecimpunctatum (Norton). Northeastern. Host: *Podophyllum peltatum.*
Tenthredo quattuordecimpunctatus Norton, 1862. Ent. Soc. Phila. Proc. 1: 143. ♀.

rubens (Cresson). Western.
Tenthredo rubens Cresson, 1880. Amer. Ent. Soc. Trans. 8: 24. ♂.
Tenthredo edwardsii Cresson, 1880. Amer. Ent. Soc. Trans. 8: 24. ♀.
Tenthredo atravenus MacGillivray, 1895. Canad. Ent. 27: 283. ♂.
Astochus fletcheri MacGillivray, 1914. Canad. Ent. 46: 108. ♀.
Astochus aldrichi MacGillivray, 1914. Canad. Ent. 46: 137. ♀.
Tenthredo racilia MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 112. ♂
Tenthredo refractaria MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 113. ♀.

ruficornum (MacGillivray). Oreg., Wash.
Tenthredopsis ruficorna MacGillivray, 1893. Canad. Ent. 25: 242. ♀.

semiluteum (Norton). Eastern, west to Iowa. Host: *Impatiens biflora.*
Tenthredo semiluteus Norton, 1862. Boston Soc. Nat. Hist. Proc. 9: 121. ♂ ♀.
Pachyprotasis delta Provancher, 1878. Nat. Canad. 10: 108. ♀.
Bivena maria MacGillivray, 1894. Canad. Ent. 26: 328.

veedee Ross. Calif.
Aglaostigma veedee Ross, 1943. Ent. Soc. Wash. Proc. 45: 81. ♂ ♀.

Genus ZASCHISONYX Ashmead

Zaschisonyx Ashmead, 1898. Canad. Ent. 30: 257.
Type: ***Hoplocampa montana*** Cresson. Orig. desig.
Opisthoneura Ashmead, 1898. Canad. Ent. 30: 287.
Type: ***Opisthoneura crevecoueri*** Ashmead. Orig. desig.
Revision: Ross, 1929. Canad. Ent. 61: 272–273.

montana (Cresson). Western, east to Iowa, Mo., and Ont. Host: *Symphoricarpos.*
Selandria montana Cresson, 1865. Ent. Soc. Phila. Proc. 4: 244. ♀.
Selandria (Hoplocampa) gentilis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 14. ♂.
Opisthoneura crevecoueri Ashmead, 1898. Canad. Ent. 30: 287. ♀.
Zaschisonyx montana var. ***drabula*** Ross, 1929. Canad. Ent. 61: 272. ♀.
Zaschisonyx montana subsp. ***occidentalis*** Ross, 1929. Canad. Ent. 61: 272. ♀.

Genus RHOGOGASTER Konow

Rhogogaster Konow, 1884. Deut. Ent. Ztschr. 28: 257.
Type: ***Tenthredo viridis*** Linnaeus. Desig. by Rohwer, 1911.

Rhogogastera Konow, 1885. Wien. Ent. Ztg. 4: 123. Emend.
Revision: Ross, 1943. Pan-Pacific Ent. 19: 129–136.

addenda (Cresson). Western, Calif. and Nev. to B. C.
Tenthredo addenda Cresson, 1880. Amer. Ent. Soc. Trans. 8: 23. ♀.
Tenthredo vittatipes Cresson, 1880. Amer. Ent. Soc. Trans. 8: 24. ♂.
Rhogogaster truncatus Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 211. ♀.
Rhogogaster pitohatus Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 211. ♀.

californica (Norton). Transcont., north. U. S. and Canada.
Tenthredo californicus Norton, 1862. Ent. Soc. Phila. Proc. 1: 198. ♀.
Tenthredopsis evansii Harrington, 1889. Canad. Ent. 21: 98. ♀.
Tenthredo ripula MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 109. ♂

lateraria (Cresson). Western, Calif. to Alta. and B. C.
Tenthredo lateraria Cresson, 1880. Amer. Ent. Soc. Trans. 8: 23. ♀.
Tenthredo retosta MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 109. ♂.

viridis (Linnaeus). Holarctic; north. U. S. and Canada. Hosts: (in Europe) *Salix Populus; Alnus; Ranunculus; Filipendula; Stellaria;* and *Circaea.*
Tenthredo viridis Linnaeus, 1758. Syst. Nat., ed. 10, p. 557.
Rhogogaster ruga MacGillivray, 1923. Canad. Ent. 60: 160. ♀.
Rhogogaster respectus MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 165. ♂.

Genus TENTHREDO Linnaeus

Tenthredo Linnaeus, 1758. Syst. Nat. Ed. 10, p. 343.
Type: ***Tenthredo scrophulariae*** Linnaeus. Desig. by Latreille, 1810.
Labidia Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 21.
Type: ***Labidia columbiana*** Provancher. Monob.
Tenthredella Rohwer, 1910. U. S. Natl. Mus. Proc. 39: 117.
Type: ***Tenthredo atra*** Linnaeus. Orig. desig.
Zamacrophya Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 221.
Type: ***Zamacrophya nigrilabris*** Rohwer. Orig. desig.
Revision: Smulyan, 1923. Boston Soc. Nat. Hist. Proc. 36: 385–465.

Originalis Group

anomocera Rohwer. Western.
Tenthredo (Labidia) anomocerus Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 223. ♀.
Tenthredo (Labidia) alienatus Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 224. ♀. N. syn.
Tenthredo (Labidia) anomus Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 225. ♀. N. syn.

maxima (Norton). Western.
Allantus unicinctus Norton, 1864. Ent. Soc. Phila. Proc. 3: 9. ♂ ♀. Preocc.
Allantus maximus Norton, 1867. Amer. Ent. Soc. Trans. 1: 263. ♀. N. syn.
Allantus unicinctulus Dalla Torre, 1894. Cat. Hym., v. 1, p. 80. N. name for *unicinctus* Norton.

ocampa Ross, n. name. Ariz., Mex.
Zamacrophya nigrilabris Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 222. ♂ ♀. Preocc. by Friwaldozky, 1876.

opima (Cresson). Western.
Allantus opimus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 15. ♂ ♀.
Labidia columbiana Provancher, 1886. Addit. Corr. Faune Ent. Canada Hymn., p. 21. ♂.
Tenthredo (Labidia) opimus coloradensis Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 224. ♀. N. syn.

originalis (Norton). Northeastern.
Allantus originalis Norton, 1867. Amer. Ent. Soc. Trans. 1: 261. ♀.

retura Ross, n. name. Western.
Allantus nigriceps Cresson, 1880. Amer. Ent. Soc. Trans. 8:16. ♂ ♀. Preocc. by Spinola, 1851.

subnigriceps (Rohwer). Southwestern.
Allantus subnigriceps Rohwer, 1909. Canad. Ent. 41: 148. ♀.

Piceocincta Group

piceocincta (Norton). Transcont., north. U. S. and Canada.
Allantus piceocinctus Norton, 1860. Boston Jour. Nat. Hist. 7: 249. ♀.
?*Tenthredo hudsoni* Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 318. ♀.
Allantus cogitans Provancher, 1878. Nat. Canad. 10: 163. ♀. N. syn.
Tenthredo ruficoxa Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 14. ♀. N. syn.
Allantus robustus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 8. ♀. N. syn.
Tenthredo ventricus MacGillivray, 1895. Canad. Ent. 27: 284. ♂. N. syn.
Tenthredo lunatus MacGillivray, 1900. Canad. Ent. 32: 180. ♀. N. syn.
Tenthredo sicatus MacGillivray, 1900. Canad. Ent. 32: 179. ♂. N. syn.
Tenthredo harrimani Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 363. ♀. N. syn.
Tenthredo neoslossoni MacGillivray, 1914. Canad. Ent. 46: 138. ♀. N. syn.
Tenthredo smetica MacGillivray, 1920. Brooklyn Ent. Soc. Bul. 15: 113. ♀. N. syn.
Tenthredo yuasi MacGillivray, 1920. Brooklyn Ent. Soc. Bul. 15: 112. ♀. N. syn.
Tenthredo reputinella MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 33. ♂. N. syn.

Basilaris Group

basilaris Say. Eastern, west to Alta.
Tenthredo basilaris Say, 1824. *In* Keating, Narr. Long's 2nd Exped., App., p. 316. ♀.
Allantus universus MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 6. ♀. N. syn.
Tenthredo rumina MacGillivray, 1923. Canad. Ent. 55: 160. ♀. N. syn.

fernaldii MacGillivray. Northeastern.
Allantus dubius Norton, 1860. Boston Jour. Nat. Hist. 7: 241. ♀. Preocc.
Tenthredo fernaldii MacGillivray, 1900. Canad. Ent. 32: 177. ♀.

perplexa MacGillivray. Western.
Tenthredo perplexus MacGillivray, 1897. N. Y. Ent. Soc. Jour. 5: 104. ♀.
Tenthredo commata Konow, 1908. Ztschr. System. Hym. Dipt. 8: 90. ♂ ♀.
Tenthredo rabula MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 112. ♂. N. syn.
Tenthredo rima MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31:110. ♂. N. syn.

Olivacea Group

olivacea Klug. Holarctic; Alaska.
Tenthredo (Allantus) olivacea Klug, 1814. Mag. Gesell. Naturf. Freunde Berlin 8: 193. ♂ ♀.
Tenthredo dissimulans Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 363. ♂ ♀. N. syn.
Rhogogastera respersus MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 165. ♂. N. syn.

Rufopecta Group

mellicoxa Provancher. Eastern and midwestern.
Tenthredo mellicoxa Provancher, 1878. Nat. Canad. 10: 198. ♂ ♀.

repleta MacGillivray. Oreg.
Tenthredo repleta MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 111. ♀.

rufopectus (Norton). Eastern and midwestern.
Allantus rufopectus Norton, 1860. Boston Jour. Nat. Hist. 7: 255. ♂ ♀.

rurigena MacGillivray. Northeastern to Colo.

Tenthredo lineata Provancher, 1788. Nat. Canad. 10: 198. ♀. Preocc.
Tenthredo rurigena MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 36. ♀.

Pectoralis Group

cryptella Ross, n. name. Calif.
Allantus limbatus Cresson, 1880. Amer. Ent. Soc. Trans. 8:17. ♀. Preocc. by Klug, 1814.

pectoralis Norton. Western.
Tenthredo pectoralis Norton, 1864. Ent. Soc. Phila. Proc. 3: 11. ♂.
(?)*Tenthredo variegatus* Norton, 1864. Ent. Soc. Phila. Proc. 3: 12. ♂.
Allantus afflictus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 17. ♀. N. syn.
Allantus nevadensis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 17. ♀. N. syn.
Allantus occidaneus Cresson, 1880. Amer. Ent. Soc. Trans. 8:18. ♀. N. syn.
Tenthredo parvula Cresson, 1880. Amer. Ent. Soc. Trans. 8: 22. ♂. N. syn.
Tenthredo lateralba MacGillivray, 1897. N. Y. Ent. Soc. Jour. 5: 108. ♀. N. syn.
Tenthredo aldrichii MacGillivray, 1900. Canad. Ent. 32: 183. ♀. N. syn.
Tenthredo atracostus MacGillivray, 1900. Canad. Ent. 32: 183. ♀. N. syn.
Tenthredo nigrifascia MacGillivray, 1900. Canad. Ent. 32: 184. ♀. N. syn.
Tenthredo savagei MacGillivray, 1900. Canad. Ent. 32: 184. ♀. N. syn.
Tenthredo refuga MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 167. ♀. N. syn.
Tenthredo remissa MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 114. ♂. N. syn.
Tenthredo reperta MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 115. ♀. N. syn.
Tenthredo replata MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 115. ♀. N. syn.
Tenthredo reticentia MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 114. ♀. N. syn.
Tenthredo rota MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 34. ♀. N. syn.
Tenthredo ruinosa MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 36. ♀. N. syn.
Tenthredo ruta MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 37. ♀. N. syn.

Angulifera Group

angulifera (Norton). Eastern.
Allantus angulifer Norton, 1860. Boston Jour. Nat. Hist. 7: 252. ♂ ♀.

carolina (Rohwer), n. comb. Eastern.
Tenthredella carolina Rohwer, 1913. U. S. Nat. Mus. Proc. 45: 275. ♀.

dissimilis (Norton). Eastern.
Allantus dissimilis Norton, 1860. Boston Jour. Nat. Hist. 7: 250. ♀.
Tenthredo bilineatus MacGillivray, 1895. Canad. Ent. 27: 282. ♀. N. syn.

fisheri (Rohwer), n. comb. Md., Ill.
Tenthredella fisheri Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 276. ♀.

glacialis (Ross), n. comb.
Tenthredella glacialis Ross, 1931. Ent. Soc. Amer. Ann. 24: 110. ♂ ♀.

lobata (Norton). Eastern.
Allantus lobatus Norton, 1860. Boston Jour. Nat. Hist. 7: 253. ♀.

mantha Ross, n. name. Eastern.
Tenthredella lobata maculosa Smulyan, 1915. Canad. Ent. 47: 324. ♂ ♀ Preocc. by Lepeletiér, 1823.

Leucostoma Group

cinctitibiis Norton. Northeastern, west to Alta.
Tenthredo cinctitibiis Norton, 1869. Amer. Ent. Soc. Trans. 2: 239. ♀.
(?)*Tenthredo decorata* Provancher, 1878. Nat. Canad. 10: 200. ♀.

erythromera Provancher. Western.
Tenthredo erythromera Provancher, 1885. Addit. Corr. Faune Ent. Canada Hym., p. 13. ♀.
Tenthredo nigricostata Provancher, 1885. Addit. Corr. Faune Ent. Canada Hym., p. 14. ♀. N. syn.
Tenthredo terminalis Provancher, 1885. Addit. Corr. Faune Ent. Canada Hym., p. 14. ♂. N. syn.
Tenthredo nigrisoma Harrington, 1894. Canad. Ent. 26: 195. ♀. N. syn. Preocc.
Tenthredo regula MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 166. ♀. N. syn.
Tenthredo requieta MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 167. ♀. N. syn.

fraternalis (Ross). B. C.
Tenthredella fraternalis Ross, 1931. Ent. Soc. Amer. Ann. 24: 131. ♀.

fumipennis Norton. Western.
Tenthredo fumipennis Norton, 1869. Amer. Ent. Soc. Trans. 2: 236. ♂.

leucostoma Kirby. Eastern.
Tenthredo rufipes Say, 1824. *In* Keating, Narr. Long's 2nd Exped., App., p. 317. ♀. Preocc.
Tenthredo leucostoma Kirby, 1837. Fauna Bor.-Amer., v. 4, p. 256.
Tenthredo rufopedibus Norton, 1864. Ent. Soc. Phila. Proc. 3: 15. ♂.

mellipes Rohwer. Colo.
Tenthredo mellipes Rohwer, 1909. Canad. Ent. 41: 105. ♀.

nigritibialis MacGillivray. Wash.
Tenthredo nigritibialis MacGillivray, 1897. N. Y. Ent. Soc. Jour. 5: 107. ♂.

nimbipennis Cresson. Ill., Tex.
Tenthredo nimbipennis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 155. ♀.

remea MacGillivray. Western.
Tenthredo remea MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 107. ♀.
Tenthredo remora MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 108. ♂. N. syn.

ruficollis Harrington, B. C.
Tenthredo ruficollis Harrington, 1894. Canad. Ent. 26: 195. ♀.

ruma MacGillivray. Pa.
Tenthredo ruma MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 36. ♂.

subcoerulea Eschscholtz. Transcont., Alaska to Fla.
Tenthredo subcoerulea Eschscholtz, 1822. Entomographien, p. 91.
Allantus flavomarginis Norton, 1860. Boston Jour. Nat. Hist. 7: 254. ♀.
Tenthredo melanosoma Harrington, 1894. Canad. Ent. 26: 194. ♀. N. syn.
Tenthredo sahlbergii Konow, 1908. Ztschr. System. Hym. Dipt. 8:91. ♂ ♀. N. syn.
(?)*Tenthredo pallipunctus* MacGillivray, 1895. Canad. Ent. 27: 282. ♀.

Occidentalis Group

bella Cresson. Colo.
Tenthredo bella Cresson, 1880. Amer. Ent. Soc. Trans. 8: 21. ♀.

occidentalis Cresson. Western.
Tenthredo occidentalis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 23. ♀.
(?)*Tenthredo vapida* Kirby, 1882. List. Hym. Brit. Mus., v. 1, p. 315. ♂ ♀
Tenthredo ferrugineipes var. *pikei* Rohwer, 1909. Canad. Ent. 41: 107. ♀. N. syn.
(?)*Tenthredo varifrons* Rohwer, 1909. Canad. Ent. 41: 110. ♂.

subrufescens Kirby. Ont.
Tenthredo subrufescens Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 311. ♀

Grandis Group

grandis (Norton). Eastern.
Allantus grandis Norton, 1860. Boston Jour. Nat. Hist. 7: 239. ♀.

Tenthredo antennata Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 308. ♀. N. syn.
Tenthredo dubitatus MacGillivray, 1897. N. Y. Ent. Soc. Jour. 5: 103. ♂.

jocosa Provancher. Quebec.
Tenthredo jocosa Provancher, 1882. Nat. Canad. 13: 298. ♀.

livida Linnaeus. North. holarctic. Hosts: *Viburnum; Salix; Rosa; Corylus; Sorbus;* and others.
Tenthredo livida Linnaeus, 1758. Syst. Nat., ed. 10, p. 557.
Tenthredo nigricollis Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 308. ♀. N. syn.

Verticalis Group

borealis Kirby. Northeastern, west to Alta.
Tenthredo cingulata Provancher, 1878. Nat. Canad. 10: 196. ♀. Preocc.
Tenthredo borealis Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 318. ♀. N. syn.
Tenthredo rutila MacGillivray, 1923. Canad. Ent. 55: 160. ♀. N. syn.

verticalis Say. Eastern and midwestern.
Tenthredo verticalis Say, 1824. *In* Keating, Narr. Long's 2nd Exped., App., p. 317. ♀.
Tenthredo causatus MacGillivray, 1900. Canad. Ent. 32: 178. ♂. N. syn.
Tenthredo rubripes MacGillivray, 1900. Canad. Ent. 32: 178. ♂. N. syn.

Semirufa Group

attracta Norton. Eastern.
Tenthredo attractus Norton, 1869. Amer. Ent. Soc. Trans. 2: 240. ♀.

concessa Norton. Eastern.
Allantus tricolor Norton, 1860. Boston Jour. Nat. Hist. 7: 247. ♀. Preocc.
Tenthredo concessus Norton, 1869. Amer. Ent. Soc. Trans. 2: 238. ♀.
Tenthredo uniformis Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 317. ♀.
Tenthredo cressonii Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 315. ♀.
(?)***Tenthredo barnstoni*** Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 314. ♂ ♀.
(?)***Tenthredo atrocoerulea*** Provancher, 1885. Addit. Corr. Fauue Ent. Canada Hym., p. 13. ♀.
Tenthredella rohweri Smulyan, 1915. Canad. Ent. 47: 323. N. name for *tricolor* Norton.
Tenthredella tricolor var. ***savanna*** Ross, 1931. Ent. Soc. Amer. Ann. 24: 116. ♀. N. syn.

eximia Norton. Northeastern, west to Alta.
Tenthredo eximius Norton, 1869. Amer. Ent. Soc. Trans. 2: 231. ♂ ♀.
(?)***Tenthredo pallicoxa*** Provancher, 1878. Nat. Canad. 10: 201. ♀.
Tenthredo nova MacGillivray, 1897. N. Y. Ent. Soc. Jour. 5: 105. ♀.

ferrugineipes Cresson. Western.
Tenthredo ferrugineipes Cresson, 1880. Amer. Ent. Soc. Trans. 8: 22. ♀.
Tenthredo sectilis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 22. ♀. N. syn.
(?)***Tenthredo luteipes*** Cresson, 1880. Amer. Ent. Soc. Trans. 8: 21. ♀.
Tenthredo montana Provancher, 1885. Addit. Corr. Faune Canada Hym., p. 12. ♀. Preocc. N. syn.
Tenthredo aequalis MacGillivray, 1895. Canad. Ent. 27: 284. ♀. N. syn.
Tenthredo terminatus MacGillivray, 1895. Canad. Ent. 27: 283. ♀. N. syn.
Tenthredo rubrisommus MacGillivray, 1900. Canad. Ent. 32: 181. ♀. N. syn.
Tenthredo retinentia MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 166. ♀. N. syn.
Tenthredo rubrica MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 35. ♀. N. syn.
lacticincta Cresson. Calif., Nev.

Tenthredo lacticincta Cresson, 1880. Amer. Ent. Soc. Trans. 8: 21 ♂ ♀.

olivatipes MacGillivray. Western.
Allantus interruptus Norton, 1867. Amer. Ent. Soc. Trans. 1: 263. ♂. Preocc.
Tenthredo olivatipes MacGillivray, 1900. Canad. Ent. 32: 180. ♀. N. syn.

ornaticeps (Cresson). Calif., Nev.
Allantus ornaticeps Cresson, 1880. Amer. Ent. Soc. Trans. 8: 16. ♂ ♀.

pallicola MacGillivray. Northeastern, west to Alta.
Tenthredo pallicola MacGillivray, 1895. Canad. Ent. 27: 80. ♀.
Tenthredo pallicola var. *beulahensis* Rohwer, 1909. Canad. Ent. 41: 108. ♀. N. syn.

pleuralis Cresson. Western, eastward across north. U. S. and Canada.
Tenthredo pleuralis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 245. ♂ ♀.
Tenthredo utensis Rohwer, 1909. Canad. Ent. 41: 109. ♀. N. syn.

rabida MacGillivray. Oreg.
Tenthredo rabida MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 110. ♀.

ralla MacGillivray. Oreg.
Tenthredo ralla MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 111. ♀.

reduvia MacGillivray. Oreg.
Tenthredo reduvia MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 108. ♀.
Tenthredo rabiosa MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 112. ♀. N. syn.

resima MacGillivray. Oreg.
Tenthredo resima MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 109. ♀.

rubeola Cresson. Western.
Tenthredo rubeola Cresson, 1880. Amer. Ent. Soc. Trans. 8: 23. ♂.

rubicunda MacGillivray. N. H.
Tenthredo rubicunda MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 34. ♀.

semirufa Norton. Eastern, northwest to Rockies.
Allantus signatus Norton, 1860. Boston Jour. Nat. Hist. 7: 247. ♀. Preocc.
Tenthredo semirufus Norton, 1864. Ent. Soc. Phila. Proc. 3: 12. ♀. N. syn.
Tenthredo semirubra Norton, 1864. Ent. Soc. Phila. Proc. 3: 14. ♀. N. syn.
Tenthredo basilaris Provancher, 1878. Nat. Canad. 10: 196. ♀. Preocc.
(?)*Tenthredo thora* Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 310. ♂ ♀.
Tenthredo remota MacGillivray, 1895. Canad. Ent. 27: 81. ♀.
Tenthredo junghannsii MacGillivray, 1900. Canad. Ent. 32: 179. ♀. N. syn.
Tenthredo ruina MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 36. ♀. N. syn.
Tenthredo rusticana MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 37. ♀. N. syn.
Tenthredo russa MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 37. ♀. N. syn.

variatus Norton. Western.
Tenthredo variatus Norton, 1864. Ent. Soc. Wash. Proc. 3: 12. ♂ ♀.
Tenthredo capitatus MacGillivray, 1897. N. Y. Ent. Soc. Jour. 5: 108. ♀. N. syn.

varipictus Norton. Western.
Tenthredo varipictus Norton, 1868. Amer. Ent. Soc. Trans. 2: 234. ♀.
Tenthredo scaevola Cresson, 1880. Amer. Ent. Soc. Trans. 4: 20. ♀. N. syn.
Tenthredo magnifica MacGillivray, 1893. Canad. Ent. 25: 240. ♀. N. syn.
Tenthredo linipes MacGillivray, 1897. N. Y. Ent. Soc. Jour. 5: 104. ♂. N. syn.

Secunda Group

nortoni (Smulyan), n. comb. Eastern.
Tenthredo angulatus Norton, 1864. Ent. Soc. Phila. Proc. 3: 13. ♂. Preocc. by Westwood, 1838.
Tenthredella nortoni Smulyan, 1915. Canad. Ent. 47: 321. ♂. N. syn.

relativa Rohwer. Nebr.
Tenthredo relativus Rohwer, 1909. Canad. Ent. 41: 108. ♀.

rhammisia MacGillivray. Western.
Tenthredo rhammisia MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 33. ♀.

rutata MacGillivray. N. J.
Tenthredo rutata MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 38. ♀.

secunda MacGillivray. Eastern.
Tenthredo secundus MacGillivray, 1897. N. Y. Ent. Soc. Jour. 5: 105. ♀.
Tenthredo simulatus MacGillivray, 1897. N. Y. Ent. Soc. Jour. 5: 105. ♀.

stricklandi (Ross), n. comb. Western.
Tenthredella stricklandi Ross, 1931. Ent. Soc. Amer. Ann. 24: 117. ♂ ♀.

vellosa Ross, n. name. Eastern.
Tenthredo formosus Norton, 1864. Ent. Soc. Phila. Proc. 3: 14. ♂ ♀. Preocc. by Klug, 1814.

Xantha Group

macgillivrayi (Smulyan). Northeastern, west to Alta.
Tenthredella macgillivrayi Smulyan, 1915. Canad. Ent. 47: 323. ♀.

mellina (Norton). Eastern.
Allantus mellinus Norton, 1860. Boston Jour. Nat. Hist. 7: 248. ♂ ♀.

obscuripennis Cresson. Calif., Oreg., Nev.
Tenthredo obscuripennis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 20. ♀.
Tenthredo rubella Cresson, 1880. Amer. Ent. Soc. Trans. 8: 22. ♂. N. syn.

prosopa Stannard. Eastern.
Tenthredo prosopa Stannard, 1947. Ent. Soc. Amer. Ann. 40: 434. ♂ ♀.

vittata Kirby. Northern.
Tenthredo vittata Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 319. ♀.
Tenthredo redimacula MacGillivray, 1895. Canad. Ent. 27: 78. ♀. N. syn.

xantha Norton. Transcont., U. S., and Canada.
Tenthredo xanthus Norton, 1864. Ent. Soc. Phila. Proc. 3: 13. ♀.
Tenthredo ruficolor Norton, 1868. Amer. Ent. Soc. Trans. 2: 228. ♀. N. syn.
(?)*Tenthredo nupera* Cresson, 1880. Amer. Ent. Soc. Trans. 8: 22. ♂.
Tenthredo castanea Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 319. ♀. N. syn.
Allantus rubricus Provancher, 1885. Addit. Corr. Faune Ent. Canada Hym., p. 9. ♀. N. syn.
Tenthredo reliquia MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 168. ♀. N. syn.
Tenthredo resticula MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 168. ♀. N. syn.

Bigemina Group

bigemina (Dyar). Western.
Allantus annularis Norton, 1867. Amer. Ent. Soc. Trans. 1: 262. ♂ ♀. Preocc.
Allantus elegantulus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 17. ♂ ♀. Preocc.
Labidia opimus var. *bigeminus* Dyar, 1893. Canad. Ent. 25: 195. ♀.
Tenthredo obliquatus MacGillivray, 1897. N. Y. Ent. Soc. Jour. 5: 105. ♂ ♀.
Tenthredo elegantula oregona Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 411. ♀.

Unassociated Males

The following list includes names based only on male types that belong to groups in which it is impossible to identify this sex with any degree of certainty. Most of the names cited probably belong to foregoing species in the Leucostoma, Occidentalis, or Semirufa groups.

Tenthredo alpestris Rohwer, 1909. Canad. Ent. 41: 146. Colo.

Tenthredo discrepans Norton, 1868. Amer. Ent. Soc. Trans. 2: 235. Ont.

Tenthredo divergens Rohwer, 1909. Canad. Ent. 41: 112. Colo.

Tenthredo diversiceps Rohwer, 1910. U. S. Natl. Mus. Proc. 38: 208. N. B.

Tenthredo hyalinus MacGillivray, 1897. N. Y. Ent. Soc. Jour. 5: 108. N. Y. Preocc.

Tenthredo hypoleuca Rohwer, 1909. Canad. Ent. 41: 147. Colo.

Tenthredo magnatus MacGillivray, 1897. N. Y. Ent. Soc. Jour. 5: 107. Wash.

Tenthredo messica MacGillivray, 1897. N. Y. Ent. Soc. Jour. 5: 107. Wash.

Tenthredo messicaeformis Rohwer, 1909. Canad. Ent. 41: 147. Colo.

Tenthredo mimula Cresson, 1880. Amer. Ent. Soc. Trans. 8: 23. Colo.

Tenthredo morosa Cresson, 1880. Amer. Ent. Soc. Trans. 8: 23. Colo.

Tenthredo mutans Norton, 1869. Amer. Ent. Soc. Trans. 2: 236. Canada.

Tenthredo nigricoxi MacGillivray, 1900. Canad. Ent. 32: 181. Wash.

Tenthredo pallipectis MacGillivray, 1897. N. Y. Ent. Soc. Jour. 5: 106. Wash.

Tenthredo reflua MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 111. Alaska.

Tenthredo reposita MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 116. Oreg.

Tenthredo reputina MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 114. Oreg.

Tenthredo resegmina MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 115. Oreg.

Tenthredo restricta MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 110. Oreg.

Tenthredo resupina MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 113. Oreg.

Tenthredo retroversa MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 164. Alaska

Tenthredo rotula MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 34. N. Y.

Tenthredo rudicula MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 35. Maine.

Tenthredo rufostigmus MacGillivray, 1895. Canad. Ent. 27: 283. Idaho.

Tenthredo rustica MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 113. Oreg.

Tenthredo rusticula MacGillivray, 1923. N. Y. Ent. Soc. Jour. 31: 166. Alaska

Tenthredo slossonii MacGillivray, 1900. Canad. Ent. 32: 179. N. H.

Tenthredo stigmatus MacGillivray, 1897. N. Y. Ent. Soc. Jour. 5: 108. Wash.

Tenthredo suavis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 21. Nev.

Tenthredo titusi Rohwer, 1909. Canad. Ent. 41: 111. Colo.

Tenthredo varians Norton, 1868. Amer. Ent. Soc. Trans. 2: 235. Canada.

Tenthredo zelmirus Rohwer, 1909. Canad. Ent. 41: 109. Colo.

Tenthredo zetes Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 312. Ont.

Unrecognized Species of Tenthredo Linnaeus

Tenthredo bivittata Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 364. ♀. Alaska.

Tenthredo frigida MacGillivray, 1895. Canad. Ent. 27: 80.

Allantus heraclei Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 364. ♀. Alaska.

Tenthredo juga Konow, 1908. Ztschr. System. Hym. Dipt. 8: 89. ♀. Alaska.

Tenthredo sectiliformis Rohwer, 1909. Canad. Ent. 41: 145. ♀. Colo.

Allantus ventralis Say, 1823. West. Quart. Rptr. 2: 71. Ark.

Genus MACROPHYA Dahlbom

Macrophya Dahlbom, 1835. Conspectus Tenthred., Siricid., Oryssin. Scand., p. 11.
Type: (*Tenthredo rusticus* auct., nec Linnaeus)=*Macrophya montana* Scopoli. Desig. by Westwood, 1840.
Pachyprotasis Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 295.
Type: *Tenthredo rapae* Linnaeus. Desig. by Westwood, 1840.
Zalagium Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 216.
Type: *Zalagium clypeatum* Rohwer. Orig. desig.

alba MacGillivray. Eastern.
Macrophya pulchella alba MacGillivray, 1895. Canad. Ent. 27: 285. ♂ ♀.
Macrophya zonata Konow, 1899. Wien. Ent. Ztg. 18: 44. N. name for *alba*.

annulipes Cresson. Calif., Nev.
Macrophya annulipes Cresson, 1880. Amer. Ent. Soc. Trans. 8: 18. ♀.

bifasciatus (Say). Tex. to N. Y.
Allantus bifasciatus Say, 1823. West. Quart. Rptr. 2: 72. ♀.
Macrophya medius Norton, 1861. Boston Soc. Nat. Hist. Proc. 9: 118.
Macrophya texana Cresson, 1880. Amer. Ent. Soc. Trans. 8: 52. ♂ ♀. N. syn.
Macrophya zabriskiei Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 218. ♂ ♀. N. syn.

castaneae Rohwer. Va. Host: *Castanea dentata*.
Macrophya castaneae Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 151. ♂.

cestus (Say). U. S.
Allantus cestus Say, 1836. Boston Jour. Nat. Hist. 1: 216. ♂ ♀.

cinctula (Norton). Eastern, west to Ill.
Tenthredo atroviolacea var. *cinctulus* Norton, 1869. Amer. Ent. Soc. Trans. 2: 240. ♀.
(?)*Allantus dejectus* Norton, 1860. Boston Jour. Nat. Hist. 7: 249. ♂.
Macrophya Abboti Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 269. ♂ ♀ N. syn.
Zalagium clypeatum Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 217. ♂.

coquilletti (Rohwer). Calif.
Sciapteryx coquilletti Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 212. ♂ ♀.

erythropa Schrank. Ont.; introduced from Europe. Hosts: *Fraxinus* and *Ligustrum*.
Tenthredo punctum album Linnaeus, 1767. Syst. Nat., ed. 12, p. 924. Not binomial, name invalid.
Tenthredo erythropus Schrank, 1776. Beitr. z. Naturgesch., p. 86.

fascialis Norton. Eastern, west to Ill.
Macrophya fascialis Norton, 1867. Amer. Ent. Soc. Trans. 1: 276. ♀.
Macrophya fascialis var. *puella* Ross, 1931. Ent. Soc. Amer. Ann. 24: 123. ♂ ♀.

flavicoxae (Norton). Eastern and midwestern.
Allantus flavicoxae Norton, 1860. Boston Jour. Nat. Hist. 7: 258. ♀.
Allantus incertus Norton, 1860. Boston Jour. Nat. Hist. 7: 258. ♂.
Macrophya flavicoxis Dalla Torre, 1894. Cat. Hym., v. 1, p. 52. Emend.

formosa (Klug). Eastern and midwestern.
Tenthredo (Allantus) formosa Klug, 1814. Mag. Gesell. Naturf. Freunde Berlin 8: 115. ♀.
Allantus bicinctus Norton, 1860. Boston Jour. Nat. Hist. 7: 241. ♂ ♀.

fumator Norton. Western.
Macrophya fumator Norton, 1867. Amer. Ent. Soc. Trans. 1: 279. ♀.
Macrophya maura Cresson, 1880. Amer. Ent. Soc. Trans. 8: 18. ♀.
Macrophya jugosa Cresson, 1880. Amer. Ent. Soc. Trans. 8: 18. ♂.
Macrophya bicolorata Cresson, 1880. Amer. Ent. Soc. Trans. 8: 18. ♀.
Synairema pacifica Provancher, 1889. Addit. Corr. Faune Ent. Canada Hym. p. 15. ♀.
Perineura kincaidia MacGillivray, 1895. Canad. Ent. 27: 7. ♀.
Macrophya obrussa MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 22. ♂.

goniphora (Say). Eastern and midwestern.
Allantus goniphorus Say, 1836. Boston Jour. Nat. Hist. 1: 216. ♂ ♀.

intermedia (Norton). Eastern and midwestern.
Allantus intermedius Norton, 1860. Boston Jour. Nat. Hist. 7: 242. ♂ ♀.
Macrophya simillima Rohwer, 1917. Ent. News 28: 265. ♂ ♀. N. syn.

nebraskensis Rohwer. Midwestern.
Macrophya sambuci Rohwer, 1909. Canad. Ent. 41: 15. ♀. Preocc.
Macrophya nebraskensis Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 220. N. name for *sambuci* Rohwer.

nigra (Norton). Eastern, west to Ill.
Allantus niger Norton, 1860. Boston Jour. Nat. Hist. 7: 239. ♀.

nigristigma Rohwer. Eastern.
Macrophya nigristigma Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 219. ♀.
Macrophya melanopleura MacGillivray, 1914. Canad. Ent. 46: 139. ♀. N. syn.

pluricincta Norton. Western.
Macrophya pluricinctus Norton, 1862. Boston Soc. Nat. Hist. Proc. 9: 118. ♂ ♀.
Macrophya albipes Provancher, 1895. Nat. Canad. 22: 95. ♂ ♀. Preocc. N. syn.
Labidia doanei Rohwer, 1909. Canad. Ent. 41: 91. ♀. N. syn.
Macrophya provancheri Rohwer, 1909. Canad. Ent. 41: 328. N. name for *albipes* Provancher. N. syn.
Macrophya nigricornis Rohwer, 1909. Canad. Ent. 41: 329. ♂ ♀. N. syn..
Macrophya occidentalis Rohwer, 1909. Canad. Ent. 41: 330. ♂. N. syn.
Macrophya bakeri Rohwer, 1909. Canad. Ent. 41: 331. ♂. N. syn.
Macrophya truncata Rohwer, 1909. Canad. Ent. 41: 331. ♂ ♀. N. syn.
Macrophya pluricinctella Rohwer, 1909. Canad. Ent. 41: 332. ♀. N. syn.
Macrophya multicincta Rohwer, 1909. Canad. Ent. 41: 333. ♀. N. syn.
Macrophya melanostoma Rohwer, 1909. Canad. Ent. 41: 333. ♀. N. syn.
Macrophya napensis Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 410. ♀. N. syn.

pulchella (Klug). Eastern and midwestern.
Tenthredo (Allantus) pulchella Klug, 1814. Mag. Gesell. Naturf. Freunde Berlin 8: 121. ♂.
Allantus flavolineatus Norton, 1860. Boston Jour. Nat. Hist. 7: 259. ♂ ♀.
Macrophya lineata Norton, 1867. Amer. Ent. Soc. Trans. 1: 269. ♀. N. syn.
Macrophya zoe Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 270. ♀. N. syn.
(?)*Macrophya crassicornis* Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 352. ♂.
Macrophya lineatana Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 220. ♀. N. syn.
Macrophya confusa MacGillivray, 1914. Canad. Ent. 46: 139. ♀. N. syn.

pulchelliformis Rohwer. Nebr.
Macrophya pulchelliformis Rohwer, 1909. Canad. Ent. 41: 15. ♂.

pulcherrima Kirby. Fla.
Macrophya pulcherrima Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 275. ♂.

pumila Norton. Calif.
Macrophya pumilus Norton, 1867. Amer. Ent. Soc. Trans. 1: 272. ♂.
Macrophya oregona Cresson, 1880. Amer. Ent. Soc. Trans. 8: 19. ♀. N. syn.
Macrophya obaereta MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 21 ♀. N. syn.
Macrophya oregona var. *dukiae* Ross, 1931. Ent. Soc. Amer. Ann. 24: 122. ♂ ♀. N. syn.

rapae (Linnaeus). Holarctic; north. U. S. and Canada. Hosts: *Solidago; Scrophularia; Betonica; Fraxinus.*
Tenthredo rapae Linnaeus, 1767. Syst. Nat., ed. 12, p. 926.
(?)*Tenthredo nigrofasciata* Eschscholtz, 1822. Entomographien, p. 96.

Macrophya (*Pachyprotasis*) *omega* Norton, 1867. Amer. Ent. Soc. Trans. 1: 280. ♂ ♀.
Macrophya obnata MacGillivray, 1923. Ill. Univ. Bul. 20 (50): 22. ♀. N. syn.
Rhogogaster sayi Rohwer, 1908. N. Y. Ent. Soc. Jour. 16: 111. ♀.

subviolacea Cresson. Calif.
Macrophya subviolacea Cresson, 1880. Amer. Ent. Soc. Trans. 8: 18. ♀.

succincta Cresson. Tex. to Ga. and N. Y.
Macrophya succincta Cresson, 1880. Amer. Ent. Soc. Trans. 8: 19. ♀.
?*Macrophya xanthonota* Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 218. ♀.

trisyllaba (Norton). Eastern and midwestern.
Allantus trisyllabus Norton, 1860. Boston Jour. Nat. Hist. 7: 238. ♀.
Macrophya trisyllabus var. *sinannula* Ross, 1931. Ent. Soc. Amer. 24: 127. ♂ ♀. N. syn.

trosula (Norton). Eastern and midwestern.
Allantus trosulus Norton, 1860. Boston Jour. Nat. Hist. 7: 244. ♀.
Macrophya albifacies Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 271. ♀.
Macrophya dyari Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 410. ♀. N. syn.
Macrophya ornata MacGillivray, 1914. Canad. Ent. 46: 139. ♀. N. syn.

varia (Norton). Eastern, west to Alta.
Allantus varius Norton, 1860. Boston Jour. Nat. Hist. 7: 240. ♀.
Macrophya eurythmia Norton, 1867. Amer. Ent. Soc. Trans. 1: 276. ♂ ♀.
Macrophya nidonea MacGillivray, 1895. Canad. Ent. 27: 77. ♂.
Macrophya varius var. *festana* Ross, 1931. Ent. Soc. Amer. Ann. 24: 124. ♀.
Macrophya varius var. *nordicola* Ross, 1931. Ent. Soc. Amer. Ann. 24: 125. ♂ ♀.

zonalis Norton. Northeastern.
Macrophya zonalis Norton, 1864. Ent. Soc. Phila. Proc. 3: 11. ♀.

Epinota Complex

The names in the following list fall in a difficult complex certainly containing an appreciable amount of synonymy, but in which satisfactory species units have not yet been segregated.

albilabris Harrington. Ottawa, Canada.
Macrophya albilabris Harrington, 1893. Canad. Ent. 25: 60. ♂.

albomaculata (Norton). Eastern.
Allantus albomaculatus Norton, 1860. Boston Jour. Nat. Hist. 7: 256. ♂ ♀.

bellula MacGillivray, N. J.
Macrophya bellula MacGillivray, 1923. Brooklyn Ent. Soc. Bul. 18: 55. ♀.

bilineata MacGillivray. Conn., Ill.
Macrophya bilineata MacGillivray, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 16: 96. ♀.

cassandra Kirby. U. S.
Macrophya cassandra Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 273. ♀

contaminata Provancher. Canada.
Macrophya contaminata Provancher, 1878. Nat. Canad. 10: 105. ♀.

epinota (Say). Eastern, west to Colo.
Allantus epinotus Say, 1836. Boston Jour. Nat. Hist. 1: 215. ♂ ♀.

errans Rohwer. Pa.
Macrophya errans Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 411. ♀.

externa (Say). Mo.
Allantus externus Say, 1823. West. Quart. Rptr., p. 72. ♀.

externiformis Rohwer. Wis.
Macrophya externiformis Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 220. ♀.

fistula MacGillivray. N. Y.
Macrophya fistula MacGillivray, 1920. Brooklyn Ent. Soc. Bul. 15: 114. ♀.

flaccida MacGillivray. N. Y.
Macrophya flaccida MacGillivray, 1920. Brooklyn Ent. Soc. Bul. 15: 113. ♀.

flicta MacGillivray. N. Y.
Macrophya flicta MacGillivray, 1920. Brooklyn Ent. Soc. Bul. 15: 114. ♀.

fuliginea Norton. Ill.
Macrophya fuligineus Norton, 1867. Amer. Ent. Soc. Trans. 1: 273. ♀.
Macrophya fuliginosa Dalla Torre, 1894. Cat. Hym., v. 1, p. 52. Misspelling.

fuscoterminata Rohwer. N. C.
Macrophya fuscoterminata Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 410. ♀.

melanota Rohwer. Ill.
Macrophya melanota Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 219. ♀.

minuta MacGillivray. N. Y.
Macrophya minuta MacGillivray, 1895. Canad. Ent. 27: 286. ♂.

mixta MacGillivray. N. H.
Macrophya mixta MacGillivray, 1895. Canad. Ent. 27: 77. ♀.

pannosa (Say). Eastern.
Allantus pannosus Say, 1836. Boston Jour. Nat. Hist. 1: 217. ♂ ♀.

propinqua Harrington. East. Canada.
Macrophya propinqua Harrington, 1889. Canad. Ent. 21: 97. ♀.

proximata Norton. East. Canada, Conn.
Macrophya proximata Norton, 1867. Amer. Ent. Soc. Trans. 1: 270. ♀.

punctata MacGillivray. N. Y.
Macrophya punctata MacGillivray, 1895. Canad. Ent. 27: 285. ♀.

raui Rohwer. Mo.
Macrophya raui Rohwer, 1917. Ent. News 28: 264. ♂ ♀.

tibiator Norton. Eastern, west to Ill.
Macrophya tibiator Norton, 1864. Ent. Soc. Phila. Proc. 3: 10. ♂ ♀.

Unplaced Species of Tenthredinidae

Tenthredo* (*Allantus*) *labiata Klug, 1814. Mag. Gesell. Naturf. Freunde Berlin 8: 73. ♀. Ga. Preocc. by *T. labiata* Fourcroy, 1785.

Tenthredo* (*Emphytus*) *articulatus Klug, 1814. Mag. Gesell. Naturf. Freunde Berlin 8: 284. ♂. Md.

Tenthredo* (*Allantus*) *obtusa Klug, 1814. Mag. Gesell. Naturf. Freunde Berlin 8: 55. ♀. Ga. This name competes with *T. obtusa* Klug., 1814, p. 211

Emphytus platycerus Say, 1836. Boston Jour. Nat. Hist. 1: 220. ♂. Ind.

Allantus obesus Norton, 1860. Boston Jour. Nat. Hist. 7: 260. ♂. Mass.

Taxonus rufipes Harrington, 1889. Canad. Ent. 21: 97. ♂. Que.

Superfamily SIRICOIDEA[6]

Family SYNTEXIDAE

Catalog: Klima, 1937. *In* Hedicke, Hym. Cat., pt. 2, p. 53.

Genus SYNTEXIS Rohwer

Syntexis Rohwer, 1915. Ent. Soc. Wash. Proc. 17: 115.
Type: ***Syntexis libocedrii*** Rohwer. Orig. desig.

[6]By D. T. Ries, Illinois State Normal University.

libocedrii Rohwer. Calif. Host: Larvae bore in wood of incense cedar, *Libocedrus decurrens*.
Syntexis libocedrii Rohwer, 1915. Ent. Soc. Wash. Proc. 17: 115. ♀.

Family SIRICIDAE

The larvae are wood borers.

Catalog: Hedicke, 1938. Hym. Cat., pt. 6, 32 pp.
Revision: Bradley, 1913. Jour. Ent. and Zool. 5: 1–36.
Generic revision: Benson, 1943. Bul. Ent. Res. 34: 27–51.

Subfamily SIRICINAE

Genus SIREX Linnaeus

Sirex Linnaeus, 1761. Fauna Suecica, Ed. 2, p. 396.
Type: ***Sirex juvencus*** Linnaeus. Desig. by Curtis, 1829.
Paururus Konow, 1896. Wien. Ent. Ztg. 15: 41, 43.
Type: ***Sirex juvencus*** Linnaeus. Desig. by Rohwer, 1911.
Biology: Essig, 1926. Ins. of West. No. Amer., pp. 770–774.

abbottii Kirby. Ga., N. Y. Host: *Larix laricina*.
Sirex abbottii Kirby, 1882. List. Hym. Brit. Mus., v. 1, p. 378. ♂.
Biology: Blackman and Stage, 1918. N. Y. State Col. Forestry, Syracuse Univ., Tech. Pub. 10.

areolatus (Cresson). Ariz., B. C., Calif., Colo., N. Mex. Host: Dead Monterey cypress; cedar; redwood; pine; douglas-fir; and related trees.
Urocerus areolatus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 375. ♀.
Sirex gracilis Westwood, 1874. Thesaurus Ent. Oxon., p. 114. ♀.
Urocerus caeruleus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 34. ♀.
Sirex apicalis Kirby, 1882. List Hym. Brit. Mus. ,v. 1, p. 377. ♂.

behrensii (Cresson). Calif., Nev. Host: *Pinus pondersoa*; Monterey Cypress; and other conifers.
Urocerus behrensii Cresson, 1880. Amer. Ent. Soc. Trans. 8: 35. ♀.

californicus (Ashmead). B. C., Calif., N. Mex., Oreg., Wash.
Paururus californicus Ashmead, 1904. Canad. Ent. 36: 64. ♀.
Biology: Herbert, 1920. U. S. Dept. Agr. Bul. 838: 8.

cyaneus Fabricius. North. N. Y. to N. B., Newfoundland and Hudson Bay, west to B. C., south to Ill. and Kans., south along Rocky Mts. to N. Mex., Pacific Coast States. Hosts: Spruce; pine; Douglas-fir; other conifers.
Sirex cyaneus Fabricius, 1781. Species Insectorum, v. 1, p. 419. ♀.
Sirex duplex Shuckard, 1837. Mag. Nat. Hist. (n. s.) 1: 630. ♂ ♀.
Urocerus nitidus Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 391. ♀.
Sirex varipes Walker, 1866. *In* Lord, Naturalist in Vancouver Is. and B. C., v. 2, p. 342. ♀.
Sirex hirsutus Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 380. ♂.

edwardsii Brullé. Transit. Zone of Atlantic Coast States.
Sirex edwardsii Brullé., 1846. Hist. Nat. Ins. Hym., v. 4, p. 645. ♀.
Urocerus zonatus Norton, 1869. Amer. Ent. Soc. Trans. 2: 257. ♂.
Sirex abaddon Westwood, 1874. Thesaurus Ent. Oxon., p. 115. ♀.
Sirex fulvocinctus Westwood, 1874. Thesaurus Ent. Oxon., p. 114. ♀.
Paururus hopkinsi Ashmead, 1904. Canad. Ent. 36: 64. ♂ ♀.

nigricornis Fabricius. N. Y. to Fla. and west to W. Va. and Ohio. Host: Reared from *Pinus echinata*.
Sirex nigricornis Fabricius, 1781. Species Insectorum, v. 1, p. 413. ♀.
Sirex morio Westwood, 1874. Thesaurus Ent. Oxon., p. 115. ♀.
Paururus pinicolus Ashmead, 1898. Canad. Ent. 30: 179. ♀.
Biology: Webster, 1895. Ohio Farmer, p. 177.—Ashmead, 1898. Canad. Ent. 30: 179.

obesus Bradley. Ariz.
Sirex obesus Bradley, 1913. Jour. Ent. and Zool. 5: 12. ♀.

Genus UROCERUS Geoffroy

Urocerus Geoffroy, 1762. Hist. Ins. Paris, v. 2, p. 264.
Type: *Ichneumon gigas* Linnaeus. Monob.

albicornis (Fabricius). Throughout boreal No. Amer. Host: Pines; firs; Douglas-fir.
Sirex albicornis Fabricius, 1781. Species Insectorum, v. 1, p. 419. ♀.
Urocerus abdominalis Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 392. ♂.
Sirex stephensi Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 375. ♀.
Biology: Lintner, 1898. N. Y. State Mus. Ann. Rpt. 51: 338–340.
Morphology: Harrington, 1880. Canad. Ent. 12: 97.

californicus Norton. Alpine regions in Ariz., B. C., Calif., Colo., Idaho, Nev., Oreg., Utah, Wash. Hosts: Pines; firs; Douglas-fir.
Urocerus albicornis var. *californicus* Norton, 1869. Amer. Ent. Soc. Trans. 2: 360. ♀.
Urocerus fulvus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 35. ♂.
Urocerus flavipennis Kirby, 1882. List. Hym. Brit. Mus., v. 1, p. 380. ♀.
Morphology: Snodgrass, 1909. U. S. Natl. Mus. Proc. 36: 61.

cressoni Norton. N. S., Que., Ont. and south to Ga.
Urocerus cressoni Norton, 1864. Ent. Soc. Phila. Proc. 3: 16. ♀.
Urocerus tricolor Provancher, 1869. Nat. Canad. 1: 17. ♀.
Sirex dimidiatus Westwood, 1874. Thesaurus Ent. Oxon., p. 115. ♀.
Sirex fiskei Ashmead, 1904. Canad. Ent. 5: 63. ♀.
Urocerus cressoni var. *unicolor* Bradley, 1913. Jour. Ent. and Zool. 5: 22. ♀.

Genus XERIS A. Costa

Xeris A. Costa, 1894. Accad. delle Sci. Fis. e Mat. Napoli, Atti (ser. 2) 7: 295.
Type: *Ichneumon spectrum* Linnaeus. Monob.

macgillivrayi Bradley. Wash.
Xeris macgillivrayi Bradley, 1913. Jour. Ent. and Zool. 5: 24. ♀.

morrisoni (Cresson). High coniferous forests of west. U. S. and Canada. Host: Living and dead white fir and lodgepole pine.
Urocerus morrisoni Cresson, 1880. Amer. Ent. Soc. Trans. 8: 35. ♂ ♀.
Urocerus tarsalis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 52. ♀.
Urocerus indecisus MacGillivray, 1893. Canad. Ent. 25: 243. ♂.

spectrum (Linnaeus). Rocky Mts. from Colo. north to Alaska, high mts. along Pacific coast, also Maine, N. B., N. H., N. S.
Ichneumon spectrum Linnaeus, 1758. Syst. Nat., ed. 10, v. 1, p. 560. ♀.
Urocerus caudatus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 247. ♀.
Sirex melancholicus Westwood, 1874. Thesaurus Ent. Oxon., p. 116. ♂.

Subfamily TREMICINAE

Genus TREMEX Jurine

Tremex Jurine, 1807. Nouv. Méthod. Class. Hym. Dipt., p. 80.
Type: *Sirex fuscicornis* Fabricius. Desig. by Latreille, 1810.
Xyloterus Hartig, 1837. Fam. Blattwespen und Holzwespen, nebst Einleitung Naturgesch. Hym., p. 385. Preocc.
Type: *Sirex fuscicornis* Fabricius. Desig. by Rohwer, 1911.
Xyloecematium Heyden, 1868. Berlin. Ent. Ztschr. 2: 227. N. name for *Xyloterus* Hartig.
Morphology: Yuasa, 1922. Ill. Biol. Monog. 7: 115–116, larvae.

columba (Linnaeus). Nearctic No. Amer. Hosts: Dead or weakened maple, elm, oak, and other deciduous trees.
Sirex columba Linnaeus, 1763. Amoenitates Academicae, v. 6, p. 412. ♀.
Sirex pennsylvanicus DeGeer, 1773. Mém. Serv. Hist. des Ins., v. 3, 593.
Sirex cinctus Drury, 1773. Illus. Nat. Hist., v. 2, p. 72. ♀.

Sirex americana Christ, 1791. Naturgesch. Class. Nomencl. Ins., p. 412. ♀.
Tremex obsoletris Say, 1823. West. Quart. Rptr. 2: 73. ♂.
Tremex sericeus Say, 1823. West. Quart. Rptr. 2: 73. ♀.
Tremex servillei Brullé, 1846. Hist. Nat. Ins., Hym., 4: 645. ♀.
Tremex maurus Westwood, 1874. Thesaurus Ent. Oxon., p. 116. ♂.
Tremex columba race *aureus* Bradley, 1913. Jour. Ent. and Zool. 5: 26. ♀. N. syn.

Biology: Herrick, 1935. Ins. Enemies of Shade Trees, p. 188–189.—Smith *et al*, 1943. Kans. State Bd. Agr. Rpt. 62: 387.

Family XIPHYDRIIDAE

The larvae of the members of this family are all wood borers; they are not common.

Revision: Rohwer, 1918. Ent. News 29: 105–111.
Biology: Yuasa, 1922. Ill. Biol. Monog. 7: 112–114.
Catalog: Hedicke, 1938. Hym. Cat., pt. 7, 17 pp.

Genus XIPHYDRIA Latreille

Xiphydria Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 304.
Type: *Ichneumon camelus* Linnaeus. Monob.
Hybonotus Klug, 1803. Monog. Siricum German., p. 8.
Type: *Ichneumon camelus* Linnaeus. Desig. by Rohwer, 1911.
Xiphydra (!) Panzer, 1806. Krit. Rev. Insektenf. Deutschlands, v. 2, p. 56.
Xiphiura Fallén, 1813. Spec. Nov. Hym. Dispon. Meth., p. 11.
Xiphidria (!) Provancher, 1875. Nat. Canad. 7: 373.
Xiphidion Provancher, 1875. Nat. Canad. 7: 374.
Type: *Xiphidion canadensis* Provancher. Monob.
Konowia Brauns, 1884. Wien. Ent. Ztg. 3: 220.
Type: *Konowia megapoltana* Brauns. Monob.
Pseudoxiphydria Enslin, 1911. Deut. Ent. Ztschr., p. 117.
Type: *Pseudoxiphydria betulae* Enslin. Orig. desig. Monob.
Hyponotus (!) Enslin, 1918. Tenthred. Mitteleuropas, pp. 704, 706. Preocc.

abdominalis Say. Ont. south to Md. and N. C., west to Iowa. Host: *Acer* and *Tilia.*
Xiphydria abdominalis Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 311. ♀.
Xiphydria attenuata Norton, 1862. Ent. Soc. Phila. Proc. 1: 214. ♂.
Xiphydria rufiventris Cresson, 1880. Amer. Ent. Soc. Trans. 8: 34. ♀.

canadensis Provancher. A rare species recorded only from Que. and Va.
Xiphidria Canadensis Provancher, 1875. Nat. Canad. 7: 373. ♀.

hicoriae Rohwer. Southeast. Canada, Conn., Ill., Mass., Ohio, Pa., N. J., N. Y. Hosts: *Carya* and *Ulmus.*
Xiphydria hicoriae Rohwer, 1918. Ent. News 29: 109. ♂ ♀.

maculata Say. South. Canada and most of the U. S., except Gulf States. Hosts: *Acer, Malus,* and one questionable record of *Tilia americana.*
Xiphydria maculata Say, 1836. Boston Jour. Nat. Hist. 1: 221. ♂.
Xiphydria albicornis Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 392. ♀.

Biology: Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 392.—Harrington, 1884. Ent. Soc. Ontario Ann. Rpt. 14: 17, 40–42.

mellipes Harris. Widely distributed across most of north. U. S. and south. Canada; also N. C. Hosts: *Betula lutea; B. occidentalis; Fagus; Alnus.*
Xiphydria mellipes Harris, 1835. *In* Hitchcock, Rpt. Geol. Mineral. Bot. Zool. Mass., Ed. 2, p. 584. *Nomen nudum.*
Xiphydria mellipes Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 393. ♀.
Xiphydria walshii Westwood, 1874. Thesaurus Ent. Oxon., p. 113. ♂. N. syn.
Xiphidion Canadensis Provancher, 1875. Nat. Canad. 7: 374. ♀. Preocc.
Xiphydria provancheri Cresson, 1880. Amer. Ent. Soc. Trans. 8: 49. N. name.

Biology: Rohwer, 1918. Ent. News 29: 110.—Yuasa, 1922. Ill. Biol. Monog. 7: 113.

tibialis Say. Northeast. U. S., southeast. Canada. Hosts: *Ulmus; Carpinus; Crataegus; Rhus typhina; Betula; Fagus, Acer.*

Xiphydria tibialis Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 312. ♀.

Xiphydria erythrogaster Ashmead, 1903. Canad. Ent. 35: 233. ♂. N. syn.

Xiphydria champlaini Rohwer, 1921. U. S. Natl. Mus. Proc. 59 (2361): 84–85. ♂ ♀. N. syn.

Biology: Packard, 1890. U. S. Dept. Agr. Ent. Comn. Rpt. 5: 483–484.

Family ORUSSIDAE[7]

So far as is known the larvae of this family parasitize wood-boring beetle larvae.

Catalog: Guiglia, 1943. Mus. Civ. Stor. Nat. Genova, Ann. 62: 85–111.
Revision: Rohwer, 1912. U. S. Natl. Mus. Proc. 43: 141–158.
Biology: Burke, 1917. Ent. Soc. Wash. Proc. 19: 87–89.—Rohwer and Cushman, 1917. Ent. Soc. Wash. Proc. 19: 89–98.

Genus ORUSSUS Latreille

Orussus Latreille, 1796. Précis Caract. Gén. Ins., p. 111.
Type: ***Oryssus coronatus*** Fabricius. Desig. by Latreille, 1810.
Oryssus Fabricius, 1798. Sup. Ent. System., p. 218. Emend.

maurus Harris. Eastern.
Oryssus maurus Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 394. ♀.

occidentalis Cresson. Western.
Oryssus occidentalis Cresson, 1879. Ent. Soc. Phila. Proc. 7: ix. ♂ ♀.
(?)***Oryssus modestus*** Rohwer, 1925. U. S. Natl. Mus. Proc. 43: 150. ♀, melanic.
Oryssus abietes Rohwer, 1925. U. S. Natl. Mus. Proc. 43: 153. ♂ ♀. N. syn.
Oryssus pini Rohwer, 1925. U. S. Natl. Mus. Proc. 43: 154. ♀. N. syn.
Oryssus relativus Rohwer, 1925. U. S. Natl. Mus. Proc. 43: 155. ♀. N. syn.
Oryssus hopkinsi Rohwer, 1925. U. S. Natl. Mus. Proc. 43: 155. ♂, partial melanic. N. syn.

sayii Westwood. Eastern.
Oryssus Sayii Westwood, 1835 (1832–1834). Zool. Jour. 5: 440. ♀.

terminalis Newman. Eastern.
Oryssus terminalis Newman, 1838. Ent. Mag. 5: 486. ♀.
Oryssus haemorrhoidalis Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 394. ♀.
Oryssus affinis Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 394. ♂.

thoracicus Ashmead. Ariz., Calif., Oreg., Wash.
Oryssus thoracicus Ashmead, 1898. Canad. Ent. 30: 178. ♀.

Genus OPHRYNELLA Ross

Ophrynella Ross, 1937. Ill. Biol. Monog. 15: 113.
Type: ***Oryssus nigricans*** Cameron. Orig. desig.

nigricans (Cameron). Tex., Guatemala.
Oryssus nigricans Cameron, 1883. Biol. Centr.-Amer., Hym., v. 1, p. 69. ♀.

Genus OPHRYNOPUS Konow

Ophrynopus Konow, 1897. Termes. Fuzetek, v. 20, p. 605.
Type: ***Ophrynopus andrei*** Konow. Desig. by Rohwer, 1911.

Unidentified species. Ariz.

[7]By Herbert H. Ross, Illinois Natural History Survey.

Genus KULCANIA Benson

Kulcania Benson, 1938. Ann. Mag. Nat. Hist. (11) 2: 8.
Type: ***Ophrynopus costaricensis*** Bischoff. Orig. desig.

Unidentified species. Fla.

Superfamily CEPHOIDEA

Stem borers in grasses, grains, roses, willows, raspberries, currants, and the like.

Family CEPHIDAE

Revision: Ries, 1937. Amer. Ent. Soc. Trans. 63: 259–324.
Generic revision: Benson, 1946. Roy. Ent. Soc., London, Trans. 96: 89–108.
Catalog: Klima, 1937. *In* Hedicke, Hym. Cat., pt. 2, pp. 1–51.

Subfamily CEPHINAE

Tribe HARTIGIINI

Genus CAENOCEPHUS Konow

Caenocephus Konow, 1896. Wien. Ent. Ztg. 15: 151.
Type: ***Caenocephus jakowleffi*** Konow. Monob.

aldrichi Bradley. B. C., Idaho, Wash.
Caenocephus aldrichi Bradley, 1905. Canad. Ent. 37: 363. ♀.
Caenocephus konowi Bradley, 1905. Canad. Ent. 37: 363. ♂.

Genus HARTIGIA Schiødte

Hartigia Schiödte, 1938. *In* Kröyer, Naturhist. Tidsskr., v. 2, p. 332.
Type: ***Astatus satyrus*** Panzer. Desig. by Boie, 1855.
Cerobractus O. Costa, 1860. Fauna del Regno di Napoli, Imen., pt. 3, p. 9.
Type: ***Cerobractus major*** O. Costa. Monob.
Macrocephus Schlechtendal, 1878. Ent. Nachr. 4: 153.
Type: ***Macrocephus ulmariae*** Schlechtendal. Monob.
Cephosoma Gradl, 1881. Ent. Nachr. 7: 294.
Type: ***Cephosoma syringae*** Gradl. Monob.
Copiosoma Kirby, 1882. List Hym. Brit. Mus., v. 1, p. 364.
Adirus Konow, 1899. Ent. Nachr. 25: 74.
Type: ***Cephus trimaculatus*** (Say). Monob.
Paradirus Dovnar-Zapolskii, 1931. Mus. Zool Acad. Sci. Leningrad Ann. 32: 39.
Type: ***Paradirus algiricus*** Dovnar-Zapolskii. Monob.

cowichana Ries. B. C., Wash. Host: Roses.
Hartigia cowichana Ries, 1937. Ent. News 48: 82. ♀.

cressonii (Kirby). Calif., Nev. Hosts: Raspberries, blackberries, loganberries, roses; economically important.
Cephus abdominalis Cresson, 1880. Amer. Ent. Soc. Trans. 8: 33. ♀. Preocc.
Cephus cressonii Kirby, 1882. List Hym. Brit. Mus., v. 1, Add., p. 403.
Astatus abdominalis Konow, 1898. Ent. Nachr. 24: 77.
Biology: Essig, 1912. Calif. Comn. Hort. Monthly Bul. 1: 889–901.—Essig, 1926. Ins. of West. No. Amer., pp. 775–776.

trimaculata (Say). Atlantic coast from Fla. to Que., west to La., Rocky Mts., Wash., and B. C. Hosts: Blackberry and roses; important economic pest.
Cephus trimaculatus Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 313. ♂ ♀.
Phylloecus bicinctus Provancher, 1875. Nat. Canad. 7: 375. ♀.
Cephus bifasciatus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 33. ♀.
Cephus fasciatus Cresson, 1880. Amer. Ent. Soc. Trans. 8: 33. ♀.
Macrocephus nigripennis Ghigi, 1915. Redia 10: 306. ♂ ♀.
Biology: Champlain, 1924. Jour. Econ. Ent. 17: 648.

Genus JANUS Stephens

Janus Stephens, 1835. Illus. Brit. Ent., v. 7, p. 107.
Type: ***Janus connectens*** Stephens. Desig. by Westwood, 1840.
Phylloecus Newman, 1838. Ent. Mag. 5: 485.
Type: ***Phylloecus faunus*** Newman. Monob.
Ephippionotus O. Costa, 1860. Fauna del Regno di Napoli, Imen., pt. 3, Cefidei, p. 11.
Type: ***Ephippionotus luteiventris*** O. Costa. Monob.

The larvae are all pith borers in woody plants.

abbreviatus (Say). East. U. S. and Canada west to Man., Wisc., and Ill., south as far as Va. Host: Twigs of willow and poplar.
Cephus abbreviatus Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 314. ♀.
Xiphydria basalis Say, 1837. Boston Jour. Nat. Hist. 1: 222. ♀.
Cephus heteropterus Norton, 1861. Boston Soc. Nat. Hist. Proc. 8: 224. ♂.
Cephus interruptus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 355. ♂ ♀.
Biology: Middleton, 1917. Ent. Soc. Wash. Proc. 19: 176.

bimaculatus (Norton). Que., Maine, Mass., N. Y., Md., Ill. Host: *Viburnum lentago.*
Phylloecus bimaculatus Norton, 1868. Amer. Ent. Soc. Trans. 2: 346. ♂ ♀.
Cephus quadriguttatus Westwood, 1874. Thesaurus Ent. Oxon., p. 111, pl. 20, fig. 11. ♀.

integer (Norton). Que. south to Md., west to Iowa and Man. Host: Currant.
Cephus integer Norton, 1861. Boston Sci. Nat. Hist. Proc. 8: 224.
Janus flaviventris Fitch, 1862 (1861). N. Y. State Agr. Soc. Trans. 21: 852.
Biology: Slingerland, 1897. N. Y. (Cornell) Agr. Expt. Sta. Bul. 126: 41–53.—Middleton, 1917. Ent. Soc. Wash. Proc. 19: 176.

rufiventris (Cresson). Calif., Oreg.
Cephus rufiventris Cresson, 1880. Amer. Ent. Soc. Trans. 8: 33. ♀.

Tribe CEPHINI

Genus CEPHUS Latreille

The larvae bore in the stems of the grasses.
Morphology: Gahan, 1920. U. S. Dept. Agr. Bul. 834.

Subgenus CEPHUS Latreille

Astatus Jurine, 1801. Intell. Blatt Litt.-Ztg. Erlangen, v. 1, p. 163. Suppressed by Internatl. Comn. Zool. Nomencl. Op. 135, 1939.
Type: ***Sirex pygmaeus*** Linnaeus. Monob.
Cephus Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 303.
Type: ***Sirex pygmaeus*** Linnaeus. Desig. by Latreille, 1810.
Calameuta Konow, 1896. Wien. Ent. Ztg. 15: 159.
Type: ***Cephus filiformis*** Eversmann. Desig. by Rohwer, 1911.

cinctus Norton. Pacific coast east to Ohio, Mich., and Man. Host: Various wild grasses, timothy, wheat, spelt, and rye.
Cephus cinctus Norton, 1872. Amer. Ent. Soc. Trans. 4: 86. ♂.
Cephus occidentalis Riley and Marlatt, 1891. U. S. Dept. Agr. Ins. Life 4: 177. ♂ ♀.
Cephus graenicheri Ashmead, 1898. Canad. Ent. 30: 182. ♂ ♀.
Biology: Criddle, 1924. Canada Dept. Agr. Pam. 6 (n. s.): 1–8.—Ainslie, 1929. U. S. Dept. Agr. Tech. Bul. 157: 1–23.

clavatus (Norton). Calif., Idaho, Oreg., Wash.
Phylloecus clavata Norton, 1869. Amer. Ent. Soc. Trans. 2: 345. ♀.

pygmaeus (Linnaeus). Palearctic species introduced into U. S.; now recorded from Conn., Mass., N. C., N. Y. and Pa. Hosts: Wheat; barley; rye. When present, adults are easily collected on nearby yellow flowers such as mustard and sweet clover.

Sirex pygmaeus Linnaeus, 1766. Syst. Nat. Ed. 12, p. 929.
Tenthredo longicornis Fourcroy, 1785. Ent. Paris, p. 378.
Banchus spinipes Panzer, 1801. Faunae Ins. German., heft 73, p. 17.
Astatus floralis Klug, 1803. Monog. Siricum German., p. 53.
Banchus viridator Fabricius, 1804. Systema Piezatorum, p. 127.
Cephus Leskii Lepeletier, 1823. Monog. Tenthred., p. 20.
Cephus atripes Stephens, 1835. Illus. Brit. Ent., v. 7, p. 105.
Cephus cultratus Eversmann, 1847. Soc. Nat. Moscou Bul. 20: 64.
Cephus flavisternus A. Costa, 1882. Accad. delle Sci. Fis. e Mat. Napoli, Rend., p. 198. ♀.
Cephus clypealis A. Costa, 1894. Prosp. Imen. Ital., v. 3, p. 250. ♂.
Biology: Ries, 1926. Jour. Agr. Res. 32: 277–295.

Subgenus TRACHELUS Jurine

Astatus Panzer, 1801. Faunae Ins. German., heft 83, pl. 12. Preocc.
Type: ***Sirex troglodyta*** Fabricius. Desig. by Rohwer, 1911.
Trachelus Jurine, 1807. Nouv. Méthod. Class. Hym. Dipt., p. 70.
Type: ***Sirex tabidus*** Fabricius. Monog.
Cepha Billberg, 1820. Enum. Ins., p. 98.
Type: ***Sirex tabidus*** Fabricius. Monob.
Trachelastatus Morice and Durrant, 1915. Ent. Soc. London. Trans., p. 383. N. name for *Cepha* Billberg.

tabidus (Fabricius). Palearctic species introduced into U. S.: now occurs in Del., Md., N. J., N. Y., Pa., Ohio, Va. Hosts: Wheat; rye.
Sirex tabidus Fabricius, 1775. Systema Ent., p. 326.
Tenthredo longicollis Fourcroy, 1785. Ent. Paris., v. 2, p. 378.
Cephus mandibularis Lepeletier, 1823. Monog. Tenthred., p. 19.
Cephus nigritus Lepeletier, 1823. Monog. Tenthred., p. 20.
Cephus vittatus A. Costa. 1878. Accad. delle Sci. Fis. e Mat. Napoli, Atti. 7: 14.
Calamenta (!) ***johnsoni*** Ashmead, 1900 (1899). N. J. State Bd. Agr. Ann. Rpt., Sup., p. 600.
Biology: Gahan, 1920. U. S. Dept. Agr. Bul. 834: 1–18.

Suborder APOCRITA (=CLISTOGASTRA)

Superfamily ICHNEUMONOIDEA

Taxonomy: Ashmead, 1901 (1900). U. S. Natl. Mus. Proc. 23: 1–220 (generic classification).—Viereck, 1914. U. S. Natl. Mus. Bul. 83: 1–150 (genotypes).—Viereck, 1921. U. S. Natl. Mus. Proc. 59: 129–150 (genotypes).

Family STEPHANIDAE[8]

Compilation of literature (World): Elliot, 1922. Zool. Soc. London, Proc., pp. 705–831.
Revision: Townes, 1949. U. S. Natl. Mus. Proc. 99: 361–370.

Stephanids may be collected on dead trees and all are presumed to be parasitic on wood-boring Coleoptera.

Genus SCHLETTERERIUS Ashmead

Schlettererius Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 20.
Type: ***Stephanus cinctipes*** Cresson. Monob.

cinctipes (Cresson). B. C., Wash., Oreg., Calif., Idaho, Ariz., Transit. Zone.
Stephanus cinctipes Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xviii. ♀.
Taxonomy: Townes, 1949. U. S. Natl. Mus. Proc. 99: 362.

Genus MEGISCHUS Brullé

Megischus Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 537.
Type: (***megischus annulator*** Brullé) = [***Stephanus***] ***furcatus*** (LePeletier and Serville). Desig. by Viereck, 1914.

[8] By Henry Townes, State College, Raleigh, N. C.

Bothrioceros Sichel, 1860. Soc. Ent. France Ann. (3) 8: 759.
Type: ***Bothrioceros europoeus*** Sichel. Desig. by Viereck, 1914.
Hemistephanus Enderlein, 1906. Stettin. Ent. Ztg. 67: 301.
Type: ***Stephanus macrurus*** Schletterer. Orig. desig.
Revision: Townes, 1949. U. S. Natl. Mus. Proc. 99: 363–370.

arizonicus Townes. Ariz. (Catalina Mts.); Mexico.
Megischus arizonicus Townes, 1949. U. S. Natl. Mus. Proc. 99: 368. ♂ ♀.

bicolor bicolor (Westwood). S. C., Ga., Fla., La. L. Austr. and Tropical Zones.
Stephanus bicolor Westwood, 1841. Ann. Nat. Hist. 7: 538.—1843. Ent. Soc London Trans. 3: 276. ♀.
Megischus floridanus Davis, 1898. Amer. Ent. Soc. Trans. 24: 349. ♀.

bicolor sickmanni (Schletterer). Mass. and Ont. to Ga., west to Iowa., Tex., Ariz., and south. Calif. Transit. and U. Austr. Zones.
Stephanus sickmanni Schletterer, 1889. Berlin. Ent. Ztschr. 33: 152. ♀.
Megischus canadensis Davis. 1898. Amer. Ent. Soc. Trans. 24: 349. ♀.
Stephanus acutus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 325. Misdet.

brunneus Cresson. Fla., Cuba.
Megischus brunneus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 84. ♂ ♀.

californicus Townes. Calif. in Transit Zone.
Megischus californicus Townes, 1949. U. S. Natl. Mus. Proc. 99: 364. ♂ ♀.

texanus Cresson. Tex., Ariz., south. Calif.; north. Mexico.
Megischus texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 190. ♀.

Family BRACONIDAE[9]

A large and important group of parasites, mostly primary, some internal, others external. The family is closely allied to the Ichneumonidae from which most species are immediately distinguished by the absence of the second recurrent vein.

Taxonomy: Ashmead, 1901 (1900). U. S. Natl. Mus. Proc. 23: 104–149.—Szépligeti, 1904. *In* Wytsman, Gen. Ins., fasc. 22 a-b, 253 pp.—Riegel. 1948. Ent. Soc. Amer. Ann. 4 (4): 439–448.

Subfamily PAXYLOMMATINAE

Relatively rare insects whose host relations have not been satisfactorily established. They are found associated with ants and may be ant parasites although some records suggest parasitism of aphids.

Genus EUPACHYLOMMA Ashmead

Eupachylomma Ashmead, 1894. Ent. Soc. Wash. Proc. 3 (1): 58.
Type: ***Wesmaelia rileyi*** Ashmead. Orig. desig.

flavocinctum Ashmead. Va.
Eupachylomma flavocincta Ashmead, 1894. Ent. Soc. Wash. Proc. 3 (1): 59. ♂.

rileyi (Ashmead). Ind., Mich., Va., D. C., Iowa.
Wesmaelia Rileyi Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 641. ♀.

Subfamily APHIDIINAE

All species are internal parasites of aphids.

Biology: Spencer, 1926. Ent. Soc. Amer. Ann. 19 (2): 119–151.—Beirne, 1942. Ent. Monthly Mag. 78: 283–286.
Revision: Gahan, 1911. Md. Agr. Expt. Sta. Bul. 152: [147]–200.—Smith, 1944. Aphidiinae of No. Amer., pp. [i]–xii, [1]–154.

[9] By C. F. W. Muesebeck and Luella M. Walkley, U. S. Bureau of Entomology and Plant Quarantine.

Genus EPHEDRUS Haliday

Ephedrus Haliday, 1833. Ent. Mag. 1: 261.
Type: ***Bracon plagiator*** Nees. Monob.
Elassus Wesmael, 1835. Nouv. Mem. Acad. Sci. Bruxelles 9: 85.
Type: ***Aphidius parcicornis*** Nees. Monob.

aestivalis Viereck. Calif.
Ephedrus aestivalis Viereck, 1915. Calif. State Comn. Hort. Monthly Bul. 286. ♀.

californicus Baker. Utah, Idaho, Oreg., Ariz., Calif. Hosts: *Macrosiphum ambrosiae* (Thos.); *M. pisi* (Kltb.); *M. rosae* (L.); *M.* sp.on sunflower; *Rhopalosiphum grabhami* Ckll.
Ephedrus californicus Baker, 1909. Pomona Jour. Ent. 1: 23.
Ephedrus nevadensis Baker, 1909. Pomona Jour. Ent. 1: 23. ♀ ♂.
Ephedrus nigricornis Gahan, 1911. Md. Agr. Expt. Sta. Bul. 152: 159. ♀.

incompletus (Provancher). Ont. to Fla., west to Kans. Hosts: *Macrosiphum carpinicolens* Patch; *M. dirhodum* (Wlkr.); *M. erigeronensis* (Thos.); *M. illini* H. and F.; *M. liriodendri* (Monell); *M. rosae* (L.); *M. solanifolii* (Ashm.); *Microparsus variabilis* Patch.
Perilitus incompletus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 126. ♂.
Ephedrus incompletus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 156. ♀.
Scotioneurus dives Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 157. ♂.
Ephedrus rosae Withington, 1909. Kans. Acad. Sci. Trans. 27: 318. ♂ ♀.

muesebecki C. F. Smith. Wash., Oreg. Host: *Amphorophora maxima* Mason.
Ephedrus muesebecki C. F. Smith, 1944. Aphidiinae of No. Amer., p. 20. ♀ ♂.

nitidus Gahan. Ont. to Va., Ohio, Calif. Hosts: *Macrosiphum solanifolii* Ashm., *Myzus persicae* (Sulz).
Ephedrus nitidus Gahan, 1917. U. S. Natl. Mus. Proc. 53: 195. ♀.

Genus PRAON Haliday

Praon Haliday, 1833. Ent. Mag. 1: 261, 483.
Type: ***Bracon exoletus*** Nees. Monob.
Aphidaria Provancher, 1886, nec. 1888. Addit. Corr. Faune Ent. Canada Hym., p. 152.
Type: ***Aphidaria simulans*** Provancher. Monob.
Biology: Ainslie, 1917. Ent. News 28: 364–367.

abjectus (Haliday). Greenland.
Aphidius (Praon) abjectus Haliday, 1833. Ent. Mag. 1: 485. ♀.

aguti C. F. Smith. Ont. to Va. and Ohio. Hosts: *Macrosiphum rosae* L.; *M. solanifolii* Ashm.; *M. pisi* (Kltb.).
Praon aguti C. F. Smith, 1944. Aphidiinae of No. Amer., p. 23. ♀ ♂.

alaskensis Ashmead. Alaska.
Praon alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 243. ♂.

americanus (Ashmead). Ind. Host: *Rhopalosiphum prunifoliae* (Fitch).
Diaeretus americanus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 669. ♂.
Diaeretus websteri Ashmead 1889 (1888). U. S. Natl. Mus. Proc. 11: 669. ♂.
Diaeretus brunneiventris Ashmead 1889 (1888). U. S. Natl. Mus. Proc. 11: 670. ♂.

artemisaphis C. F. Smith. Utah. Host: *Macrosiphum coweni* (Hunter).
Praon artemisaphis C. F. Smith, 1944. Aphidiinae of No. Amer. p. 26. ♀.

cerasaphis (Fitch). N. Y.
Trioxys cerasaphis Fitch, 1855 (1854). N. Y. State Agr. Soc. Trans. 14: 842.

coloradensis Ashmead. Colo.
Praon coloradensis Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 20. ♂.

humulaphidis Ashmead. N. Y., Md., Va. Host: *Siphonophora* sp. on hops.
Praon humulaphidis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 657. ♀.

nanus Baker. Nev.
Praon nanus Baker, 1909. Pomona Jour. Ent. 1: 23. ♂.

negundinis C. F. Smith. Iowa, Ohio. Host: *Periphyllus negundinis* Thos.
Praon negundinis C. F. Smith, 1944. Aphidiinae of No. Amer. p. 27. ♀ ♂.

occidentalis Baker. Ont., Nev., Oreg., Calif., Idaho. Host: *Macrosiphum pisi* (Kltb.); *Macrosiphum* sp.
Praon occidentalis Baker, 1909. Pomona Jour. Ent. 1: 23. ♀.

simulans (Provancher). South. Canada and north. U. S. Host: *Macrosiphum pisi* (Kltb.).
Aphidaria simulans Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 153. ♂ ♀.
Praon pequodorum Viereck, 1917 (1916). Conn. State Geol. Nat. Hist. Survey Bul. 22: 259.

unicus C. F. Smith. Colo.
Praon unicus C. F. Smith, 1944. Aphidiinae of No. Amer., p. 30. ♀ ♂.

virginiensis Ashmead. Va., Ohio, N. Y. Host: *Macrosiphum illini* H. and F.
Praon virginiensis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 657. ♂.

Genus MONOCTONUS Haliday

Monoctonus Haliday, 1833. Ent. Mag. 1: 261, 487.
Type: ***Aphidius (Monoctonus) caricis*** Haliday. Monob.
Aphidileo Rondani, 1848. Nuovi Ann. Sci. Nat. e Rend. Bologna (2) 9: 14. N. syn.
Type: ***Aphidius resolutus*** Nees. Monob.

paulensis (Ashmead). Alaska, Oreg., Calif. Host: *Macrosiphum pisi* (Kltb.).
Aphidius paulensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 246. ♀ ♂.

secundus Viereck. Calif.
Monoctonus secundus Viereck, 1915. Calif. State Comn. Hort. Monthly Bul. 4: 28. ♀ ♂.

Genus APHIDIUS Nees

Biology: Janiszewska, 1933. Acad. Polon. Sci. Let. ser. B, Sci. Nat. Bul. (2): 277–293.

Subgenus XENOSTIGMUS C. F. Smith

Xenostigmus C. F. Smith, 1944. Aphidiinae of No. Amer., pp. 35, 36.
Type: ***Aphidius bifasciatus*** Ashmead. Monob. and orig. desig.

bifasciatus Ashmead. N. C., Md., Fla., Utah, Nebr. Hosts: *Cinara carolina* Tissot; *C. taedae* Tissot; *C. australis* (Ashm.).
Aphidius bifasciatus Ashmead, 1891. Canad. Ent. 23: 6. ♀.

Subgenus PROTAPHIDIUS Ashmead

Coelonotus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 248. Preocc.
Type: ***Coelonotus rufus*** Foerster. Monob.
Coclonotus (!) Thompson, 1895. Opusc. Ent. 20: 2334.
Protaphidius Ashmead, 1900. Canad. Ent. 32: 368.
Type: ***Coelonotus rufus*** Foerster. Autob.

bicolor Ashmead. N. J. to Fla., Ohio. Hosts: *Cinara strobi* (Fitch); *C. longispinosa* Tissot; *C. pini* (L.); *C. australis* (Ashm.).
Aphidius bicolor Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 658. ♀.
Aphidius pinaphidis Ashmead, 1891. Canad. Ent. 23: 6. ♂ ♀.

californicus Ashmead. Calif., S. Dak., Ohio. Hosts: *Cinara occidentalis* (David.); *Schizolachnus pini-radiatae* (David.).
Aphidius californicus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 660. ♀.

gillettei Gahan. Colo., La. Host: *Lachnus* sp. on *Abies lasiocarpa.*
Aphidius gillettei Gahan, 1911. Md. Agr. Expt. Sta. Bul. 152: 171. ♀.

juniperaphidis Gahan. Ohio, Colo., Idaho. Hosts: *Cinara* sp.; *C. occidentalis* (David.); *C. pulverulens* (G. and P.); *Lachnus* sp. on *Juniperus sibiricus.*
Aphidius juniperaphidis Gahan, 1911. Md. Agr. Expt. Sta. Bul. 152: 174.

macrogaster Ashmead. Ont.
Aphidius macrogaster Ashmead, 1891. Canad. Ent. 23: 5. ♂.

nigrovarius Provancher. Calif. Host: *Lachnus* sp.
Aphidius nigrovarius Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 396. ♀.

prociphali Ashmead, emend. D. C., Va., N. C., Minn., Wash. Host: *Prociphalus* sp. on *Pinus inops.*
Aphidius procephali Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 659. ♂.

scorpinicus C. F. Smith. Va.
Aphidius (Protaphidius) scorpinicus C. F. Smith, 1944. Aphidiinae of No. Amer., p. 45. ♀ ♂.

takomaensis C. F. Smith. Md., Va., Colo. Host: *Cinara* sp. on pine.
Aphidius (Protaphidius) takomaensis C. F. Smith, 1944. Aphidiinae of No. Amer., p. 46. ♀ ♂.

varigatus C. F. Smith. Colo. Hosts: *Cinara hottesi* (G. and P.); *Lachnus* sp. on *Abies lasiocarpa.*
Aphidius (Protaphidius) varigatus C. F. Smith, 1944. Aphidiinae of No. Amer., p. 47. ♀.

xanthotherus C. F. Smith. N. C., Va. Hosts: *Cinara* sp.; *C. strobi* (Fitch); *C. carolina* Tissot.
Aphidius (Protaphidius) xanthotherus C. F. Smith, 1944. Aphidiinae of No. Amer., p. 48. ♀ ♂.

Subgenus APHIDIUS Nees

Aphidius Nees, 1818. Nov. Act. Acad. Caes. Leop. Car. 9: 302.
Type: *Bracon picipes* Nees. Desig. by Viereck, 1914.
Theracmion Holmgren, 1872. Öfvers. Svensk. Vet. Akad. Forh. 29: 99.
Type: *Theracmion arcticus* Holmgren. Monob.

atropetiolatus Ashmead. Colo.
Aphidius atropetiolatus Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 20. ♂.

avenaphis (Fitch). Ont. to S. C. west to Ind.; Calif. Hosts: *Rhopalosiphum prunifoliae* (Fitch); *Myzis persicae* (Sulz.); *Macrosiphum granarium* Kby.
Praon avenaphis Fitch, 1861 (1860). N. Y. State Agr. Soc. Trans. 20: 840.
Aphidius xanthus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 661. ♂.
Aphidius granariaphis Cook, 1890. Canad. Ent. 22: 125. ♀ ♂.

berberidis C. F. Smith. Ohio (Columbus). Host: *Liosomaphis berberidis* (Kltb.).
Aphidis (Aphidius) berberidis C. F. Smith, 1944. Aphidiinae of No. Amer., p. 54. ♀ ♂.

coloratus Baker. Pa. (Jeannette).
Aphidius coloratus Baker, 1909. Pomona Jour. Ent. 1: 24. ♀.

coloratus var. **ferruginosus** Baker. Wis. (Polk Co.).
Aphidius coloratus var. *ferruginosus* Baker, 1909. Pomona Jour. Ent. 1: 24. ♀.

confusus Ashmead. Calif., Ariz. Host: *Macrosiphum* sp. on sunflower.
Aphidius confusus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 662. ♀.

crassicornis Ashmead. Ont.
Aphidius crassicornis Ashmead, 1891. Canad. Ent. 23: 5. ♂.
A[phidius] brevicornis Ashmead, 1891. Canad. Ent. 23: 6. ♀.

delicatus Baker. Nev. (Ormsby Co.).
Aphidius delicatus Baker, 1909. Pomona Jour. Ent. 1: 24. ♂.

floridaensis C.F.Smith. Fla.(Gainseville). Host: *Macrosiphum ambrosiae* (Thos.).

Aphidius* (*Aphidius*) *floridaensis C. F. Smith, 1944. Aphidiinae of No. Amer. p. 56. ♀ ♂.

glacialis Ashmead. Alaska.
Aphidius glacialis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 245. ♀.

kakimiaphidis C. F. Smith. Colo. Host: *Kakimia cerei* G. and P.
Aphidius* (*Aphidius*) *kakimiaphidis C. F. Smith, 1944. Aphidiinae of No. Amer., p. 58. ♀ ♂.

montanus Ashmead. Colo.
Aphidius montanus Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 20. ♂.

nigripes Ashmead. Conn. to Md.; Ohio. Hosts: *Macrosiphum dirhodum* (Wlkr.); *M. liriodendri* (Monell); *M. pisi* (Kltb.); *M. solanifolii* (Ashm.); ?*M. rosae* (L.).
Aphidius nigripes Ashmead, 1901. N. Y. State Mus. Bul. 47: 588. ♂.

nigriteleus C. F. Smith. Mass., Conn., Ohio, Ind., Mich., Oreg. Hosts: *Myzus persicae* (Sulz.); *Macrosiphoniella sanborni* (Gill.); *Rhopalosiphum rufomaculatum* (Wils.),
Aphidius* (*Aphidius*) *nigriteleus C. F. Smith, 1944. Aphidiinae of No. Amer., p. 61. ♀ ♂.

obscuripes Ashmead. Ont. to N. C. ,west to Iowa; Colo., Oreg. Hosts: *Macrosiphum granarium* Kirby; *M. pisi* (Kltb.); *Rhopalosiphum prunifoliae* (Fitch).
Aphidius obscuripes Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 660. ♀.

ohioensis C. F. Smith. Ohio, Tenn., Ark., Ariz. Hosts: *Macrosiphum anomalae* H. and F.; *M. illini* H. and F.; *M.* sp.
Aphidius* (*Aphidius*) *ohioensis C. F. Smith, 1944. Aphidiinae of No. Amer., p. 63. ♀ ♂.

phorodontis Ashmead. Ont., D. C., Mich., Mo. Hosts: "*Phorodon mahaleb* Mon."; "*Myzus* on turnip"; *Myzus persicae* (Sulz.).
Aphidius phorodontis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 662. ♀.

Biology: McLeod, 1937. Ent. Soc. Ontario Ann. Rpt. for 1936, p. 63.

pisivorus C. F. Smith. Wash., Oreg., Idaho, Utah, Nev., Ohio, D. C., Va. Host: *Macrosiphum pisi* (Kltb.).
Aphidius pisivorus C. F. Smith, 1941. Ent. Soc. Amer. Ann. 34: 537. ♀ ♂.

polygonaphis (Fitch). Que. to Fla. and La., west to Wis. and Kans.; Utah. Hosts: *Macrosiphum ambrosiae* (Thos.); *M. rudbeckiae* (Fitch); *M. taraxaci* (Kltb.); *M.* sp.
Praon polygonaphis Fitch, 1855 (1854). N. Y. State Agr. Soc. Trans. 14: 840.
Aphidius canadensis Provancher, 1881. Nat. Canad. 12: 204. ♀.
Aphidius obscurus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 152. ♀.
Aphidius pallidus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 661. ♀.
Aphidius nigriceps Ashmead, 1891. Canad. Ent. 23: 6. ♂.
Lysiphlebus succineus Viereck, 1904. Kans. Acad. Sci. Trans. 19: 282. ♂.

propinquus Ashmead. Alaska, Idaho.
Aphidius propinquus Ashmead, 1902. Wash. Acad. Sci. Trans. 4: 245. ♂.
Aphidius frigidus Ashmead, 1902. Wash. Acad. Sci. Trans. 4: 246. ♂.

pterocommae Ashmead. Mass., D. C., Ohio, Calif. Hosts: *Clavigerus bicolor* (Oestl.); *C. smithiae* (Monell); *Lachnus salicicola* (Uhler).
Aphidius pterocommae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 659. ♂.
Aphidius lachni Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 660. ♀ ♂.

pulcher Baker. Nev. (Ormsby Co.).
Aphidius pulcher Baker, 1894. Pomona Jour. Ent. 1: 24. ♀.

ribis Haliday. Ont. to D. C., west to Iowa; Utah. Host: *Capitophorus ribis* (L.).
Aphidius* (*Aphidius*) *ribis Haliday, 1835. Ent. Mag. 2: 101. ♀.
Lysiphlebus ribaphidis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 664. ♂.
Aphidius ribis Ashmead, 1898. Wash. Ent. Soc. Proc. 4 (2): 167. ♀ ♂.

rosae Haliday. Mass. to D. C.; Ohio. Hosts: *Macrosiphum dirhodum* (Wlkr.); *M. liriodendri* (Monell); *M. rosae* (L.); *M. solanifolii* (Ashm.).
Aphidius rosae Haliday, 1833. Ent. Mag. 1: 261.

Subgenus LYSAPHIDUS C. F. Smith

Lysaphidus C. F. Smith, 1944. Aphidiinae of No. Amer., p. 72.
Type: ***Aphidius (Lysaphidus) adelocarinus*** C. F. Smith. Orig. desig.

adelocarinus C. F. Smith. Utah, Idaho. Hosts: *Capitophorus glandulosus* (Kltb.); *Pseudoepameibaphis glauca* G. and P.; *P. xenotrichus* K. and S.
Aphidius (Lysaphidus) adelocarinus C. F. Smith, 1944. Aphidiinae of No. Amer., pp. 72, 73. ♀ ♂.

multiarticulatus (Ashmead). Ind. (Lafayette).
Lysiphlebus multiarticulatus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 664. ♂.

ramithyrus C. F. Smith. Utah (Brigham Canyon). Host: *Capitophorus gregarius* Kwlt.
Aphidius (Lysaphidus) ramithyrus C. F. Smith, 1944. Aphidiinae of No. Amer., pp. 73, 75. ♀ ♂.

rosaphidis C. F. Smith. N. J., N. C., Ohio. Hosts: *Capitophorus potentillae* (Wlkr.); *C.* sp. on strawberries.
Aphidius (Lysaphidus) rosaphidis C. F. Smith, 1944. Aphidiinae of No. Amer., pp. 73, 75. ♀ ♂.

Subgenus LYSIPHLEBUS Foerster

Lysiphlebus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 248, 250.
Type: ***Bracon dissolutus*** Nees. Monob. and orig. desig.
Aphidaria Provancher, 1888, nec. 1886. Addit. Corr. Faune Ent. Canada Hym., p. 396.
Type: ***Aphidaria basilaris*** Provancher. Monob.

chrysoaphidis C. F. Smith. Utah, Idaho. Hosts: *Aphis chrysothamni* Wils.; *A. gregalis* Kwlt.
Aphidius (Lysiphlebus) chrysoaphidis C. F. Smith, 1944. Aphidiinae of No. Amer., pp. 77, 78. ♀ ♂.

flavidus (Gahan). Ohio, Nebr., Colo. Hosts: *Aphis debilicornis* (G. and P.); *A. albipes* Oestl.
Lysiphlebus flavidus Gahan, 1911. Md. Agr. Expt. Sta. Bul. 152: 186. ♀.

knowltoni C. F. Smith. Utah, Idaho. Hosts: *Aphis artemisicola* Wms., *Microsiphum acophorum* S. and K.
Aphidius (Lysiphlebus) knowltoni C. F. Smith, 1944. Aphidiinae of No. Amer.; pp. 77, 80. ♀ ♂.

testaceipes (Cresson). All U. S.; Mexico. Hosts: *Aphis cerasifoliae* Fitch; *A. gossypii* Glover; *A. helianthi* Monell; *A. heraclella* Davis; *A. laburni* Kltb.; *A. maidis* Fitch; *A. medicaginis* Koch; *A. nerii* Fonsc.; *A. neogilletti* Palmer; *A. oenotherae* Oestl.; *A. oestlundi* Gill.; *A. phaceliae* G. and P.; *A. rumicis* L.; *A. saliceti* Kltb.; *Hysteroneura setariae* (Thos.); *Brevicoryne brassicae* (L.); *Myzus rhamni* (Fonsc.); *M. persicae* (Sulz.); *M. cerasi* (F.); *Capitophorus ribis* (L).; *Toxoptera aurantii* (Fonsc.); *T. graminum* (Rond.); *Macrosiphum rosae* (L.); *M. granarium* Kby.; *M. citrifolii* (Ashm.); *M. cucurbitae* (Thos.); *Rhopalosiphum prunifoliae* (Fitch).
Trioxys testaceipes Cresson, 1880. U. S. Dept. Agr. Ann. Rpt. for 1879, p. 208. ♀.
Aphidius citraphis Ashmead, 1880. Orange Insects, p. 70. ♀ ♂.
Adialytus maidaphidis Garman, 1885. Ill. State Ent. Rpt. 14:31. ♀ ♂.
Aphidius flavicoxa Ashmead, 1888. Fla. Agr. Expt. Sta. Bul. 2: 23. ♀ ♂.
Aphidaria basilaris Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 396. ♂ ♀.
Lysiphlebus piceiventris Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 663, 664. ♀.

Lysiphlebus minutus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 663, 664. ♂ ♀.
Lysiphlebus eragrostaphidis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 663, 665. ♂ ♀.
Lysiphlebus coquilletti Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 663, 665. ♀ ♂.
Lysiphlebus cucurbitaphidis Ashmead, 1889 (1888). U. S. Natl. Mus. 11: 663, 655. ♀ ♂.
Lysiphlebus myzi Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 663, 666. ♂ ♀.
Lysiphlebus gossypii Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 663, 667. ♂ ♀.
Lysiphlebus abutilaphidis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 663, 667. ♂ ♀.
Lysiphlebus persicaphidis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 663, 668. ♀.
Lysiphlebus tritici Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 663, 668. ♂ ♀.
Lysiphlebus baccharaphidis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 663, 668. ♂ ♀.
Aphidius persiaphis Cook, 1891. Mich. Agr. Col. Bul. 73: 12. ♂.
Lysiphlebus crawfordi Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 135. ♀ ♂.

utahensis C. F. Smith. Utah, Idaho. Host: *Macrosiphum coweni* (Hunter).
Aphidius (*Lysiphlebus*) *utahensis* C. F. Smith, 1944. Aphidiinae of No. Amer., p. 83. ♀ ♂.

viburnaphis (Fitch), n. comb. N. Y. Host: *Aphis* on *Viburnum opulus americanum*.
Praon viburnaphis Fitch, 1855 (1854). N. Y. State Agr. Soc. Trans. 14: 841.

Genus TRIOXYS Haliday

Subgenus TRIOXYS Haliday

Trioxys Haliday, 1833. Ent. Mag. 1: 261, 488.
Type: *Aphidius cirsii* Curtis. Monob.
Nevropenes Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., pp. 151, 153.
Type: *Nevropenes ovalis* Provancher. Monob.

ameraceris C. F. Smith. Ohio, Md., Fla. Hosts: *Drepanaphis acerifoliae* (Thos.); *D. monelli* (Davis).
Trioxys (*Trioxys*) *ameraceris* C. F. Smith, 1944. Aphidiinae of No. Amer., pp. 86, 87. ♀ ♂

bonnevillensis C. F. Smith. Idaho, Utah. Hosts: *Pseudoepameibaphis glauca* G. and P.; *Capitophorus glandulosus* (Kltb.); *C. bitrichus* K. and S.; *C. oestlundi* Kwlt.
Trioxys (*Trioxys*) *bonnevillensis* C. F. Smith, 1944. Aphidiinae of No. Amer. pp. 86, 88. ♀ ♂.

carolinensis C. F. Smith. N. C. Host: *Aphis* sp.
Trioxys (*Trioxys*) *carolinensis* C. F. Smith, 1944. Aphidiinae of No. Amer., pp. 86, 89. ♀ ♂.

coruscanigrans Gahan. Colo., Utah, Idaho. Hosts: *Macrosiphum coweni* (Hunter); *M. jonesii* G. and P.; *M. frigidae* Oestl.
Trioxys coruscanigrans Gahan, 1911. Md. Agr. Expt. Sta. Bul. 152: 195. ♀.

cupressicola Gahan. Calif. Host: *Cerosipha* sp.
Trioxys cupressicola Gahan, 1919. U. S. Natl. Mus. Proc. 55: 116. ♀ ♂.

exareolatus (Viereck). Conn. Host: *Macrosiphum rosae* (L.).
Aphidius (*Trioxys*) *exareolatus* Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 260, 261. ♀.

gahani C. F. Smith. N. J. Host: ?*Aphis forbesi* Weed.
Trioxys (*Trioxys*) *gahani* C. F. Smith, 1944. Aphidiinae of No. Amer., pp. 86, 92. ♀ ♂.

infrequens C. F. Smith. Colo.

Trioxys (Trioxys) infrequens C. F. Smith, 1944. Aphidiinae of No. Amer., pp. 86, 93. ♀.

ovalis (Provancher). Ont.
Nevropenes ovalis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 153. ♂ ♀.

palmerae C. F. Smith. Colo. Host: *Macrosiphum mentzeliae* Wils.
Trioxys (Trioxys) palmerae C. F. Smith, 1944. Aphidiinae of No. Amer., pp. 86, 94, ♀ ♂.

rhagii Ashmead. Ont., N. J.
Trioxys rhagii Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 670. ♀.

Subgenus ACANTHOCAUDUS C. F. Smith

Acanthocaudus C. F. Smith, 1944. Aphidiinae of No. Amer., pp. 85, 96.
Type: ***Trioxys (Acanthocaudus) tissoti*** C. F. Smith. Orig. desig.

caudacanthus C. F. Smith. Wis., Fla. Hosts: ?*Macrosiphum erigeronensis* (Thos.); *M. gravicornis* Patch.
Trioxys (Acanthocaudus) caudacanthus C. F. Smith, 1944. Aphidiinae of No. Amer., pp. 96, 97. ♀ ♂.

tissoti C. F. Smith. Fla. (Gainesville). Host: *Macrosiphum rudbeckiae* (Fitch).
Trioxys (Acanthocaudus) tissoti C. F. Smith, 1944. Aphidiinae of No. Amer., p. 96. ♀ ♂.

Genus DIAERETUS Foerster

Diaeretus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 249, 250.
Type: ***Aphidius leucopterus*** Haliday. Monob. and orig. desig.
Adialytus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 249, 250.
Type: ***Adialytus tenuis*** Foerster. Monob. and orig. desig.
Lipolexis Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 249, 250.
Type: ***Lipolexis gracilis*** Foerster. Monob. and orig. desig.

chenopodiaphidis (Ashmead). Idaho, Utah, Calif. Host: *Hyalopterus atriplicis* (L.).
Lipolexis chenopodiaphidis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 671. ♂ ♀.

fuscicornis (Ashmead). Ont., Conn., Tenn., S. Dak., Idaho, Calif. Host: *Aphis forbesi* Weed.
Lipolexis fuscicornis Ashmead, 1891. Canad. Ent. 23: 7. ♀.

rapae (M'Intosh). N. Y. to N. C., west to Oreg. and Calif. Hosts: *Rhopalosiphum pseudobrassicae* (Davis); *Myzus persicae* (Sulz.); *Brevicoryne brassicae* (L.).
Aphidius rapae M'Intosh, 1855. Book of the Garden, 2, p. 194. ♀.
Trioxys piceus Cresson, 1880. U. S. Dept. Agr. Ann. Rpt. for 1879, p. 260. ♀ ♂.
Aphidius brassicae Marshall, 1891. *In* Andre, Spec. Hym. Eur. Alg., v. 5, p. 598. ♀ ♂.
Diaeretus californicus Baker, 1909. Pomona Jour. Ent. 1: 25. ♀.

salicaphis (Fitch). N. Y., Ohio, Colo., Utah, Calif. Hosts: *Chaitophorus viminalis* Monell; *Neothomasia populicola* (Thos.).
Trioxys salicaphis Fitch, 1855 (1854). N. Y. State Agr. Soc. Trans. 14: 841.
Trioxys populaphis Fitch, 1855 (1854). N. Y. State Agr. Soc. Trans. 14: 841.
Lipolexis salicaphidis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 671. ♂ ♀.

Subfamily EUPHORINAE

As considered here this subfamily includes the groups formerly treated as the Meteorinae and the Helorimorphinae. There is a wide range of host relations in the subfamily, but all species are internal parasites.

Revision: Muesebeck, 1936. U. S. Dept. Agr. Misc. Pub. 241: 1–38.

Genus ARIDELUS MARSHALL

Aridelus Marshall, 1887. London Ent. Soc. Trans., p. 66.
Type: ***Aridelus bucephalus*** Marshall. Monob.
Helorimorpha Schmiedeknecht, 1907. Hym. Mitteleuropas, p. 523.
Type: ***Helorimorpha egregia*** Schmiedeknecht. Monob.
Stictometeorus Cameron, 1909. Soc. Ent. 24: 9.
Type: ***Stictometeorus rufus*** Cameron. Monob. and orig. desig.
Erythrometeorus Cameron, 1911. Timehri (3) 1: 317.
Type: ***Erythrometeorus reticulatus*** Cameron. Monob.
Scipolabia Enderlein, 1920. Arch. f. Naturgesch. 84 A: 220.
Type: ***Scipolabia reticulata*** Enderlein. Monob. and orig. desig.

The meager available records indicate that species of this genus are parasites in nymphs and adults of Pentatomidae.

fisheri (Viereck). Pa. to Ala. west to Kans. and Tex.
Helorimorpha fisheri Viereck, 1909. Ent. News 20: 290. ♀ ♂.

melanderi (Brues). Mass., Pa., Mich.
Helorimorpha melanderi Brues, 1908. Ent. News 19: 363. ♀.

nigrithorax Muesebeck. Tex., Tenn., Va., Conn.
Aridelus nigrithorax Muesebeck, 1936. U. S. Dept. Agr. Misc. Pub. 241: 8. ♀.

Genus METEORUS Haliday

Meteorus Haliday, 1835. Ent. Mag. 3: 24.
Type: ***Ichneumon pendulator*** Latreille. Desig. by Westwood, 1839.
Protelus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 253.
Type: ***Bracon chrysophthalmus*** Nees. Monob. and orig. desig.
Zemiotes Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 253.
Type: ***Perilitus albitarsis*** Nees. Monob. and orig. desig.
Saprotichus Holmgren, 1868. Eug. Resa I, Zool. I, Ins., p. 430.
Type: ***Saprotichus chinensis*** Holmgren. Desig. by Viereck, 1914.
Pachythecus Cameron, 1912. Soc. Ent. 27: 84.
Type: ***Pachythecus ruficeps*** Cameron. Desig. by Viereck, 1914.
Revision: Muesebeck, 1923. U. S. Natl. Mus. Proc. 63 (2): 1–44.

Most species of *Meteorus* are parasites of lepidopterous larvae but some parasitize Coleoptera.

acronyctae Muesebeck. Colo., N. Mex., Ariz. Hosts: *Acronycta* sp.; *Euschausia* sp.; *Hyphantria cunea* (Drury).
Meteorus acronyctae Muesebeck, 1923. U. S. Natl. Mus. Proc. 63 (2): 10, 35. ♀ ♂.

alaskensis (Ashmead). Alaska.
Dyscoletes alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 247. ♂.

angustipennis Muesebeck. Mass., Ohio, N. Y., Pa., Md.
Meteorus angustipennis Muesebeck, 1923. U. S. Natl. Mus. Proc. 63 (2): 8, 19. ♀ ♂.

argyrotaeniae Johansen. B. C., Wash. Host: *Argyrotaenia citrana* (Fern.).
Meteorus argyrotaeniae Johansen, 1949. Ent. Soc. Amer. Ann. 42: 319. ♀.

arizonensis Muesebeck. Ariz., N. Mex.
Meteorus arizonensis Muesebeck, 1923. U. S. Natl. Mus. Proc. 63 (2): 10, 34. ♀ ♂.

autographae Muesebeck. Maine to Fla., west to Mo. and La.; Canada. Hosts: *Autographa sp.; Trichoplusia ni* (Hbn.)*; Laphygma frugiperda* (A. and S.)*; Cirphis unipuncta* (Haw.)*; Prodenia eridania* (Cram.)*; Colias philodice eurytheme* Bdvl.; *Plathypena scabra* (F.)*; Alsophila pometaria* (Harr.)*; Evergestis straminalis* (Hbn.).
Meteorus autographae Muesebeck, 1923. U. S. Natl. Mus. Proc. 63 (2): 10, 30. ♀ ♂.

bakeri Cook and Davis. N. H. to Mich. and Ky.; S. Dak. Host: *Hyphantria cunea* (Drury).
Meteorus bakeri Cook and Davis, 1891. Mich. Agr. Expt. Sta. Bul. 73: 9. ♂.

cingiliae Muesebeck. Mass., Maine. Host: *Cingilia catenaria* (Drury).
Meteorus cingiliae Muesebeck, 1926. U. S. Natl. Mus. Proc. 69 (7): 3. ♀ ♂.

cognatus Muesebeck. Calif.
Meteorus cognatus Muesebeck, 1939. Ent. Soc. Wash. Proc. 41: 84. ♀.

communis (Cresson). North. U. S.; Canada, Alaska. Hosts: *Dargida procincta* (Grote); *Lithophane laticinerea* Grote; *Graptolitha* sp.; *Cirphis unipuncta* Haw.; *Malacosoma americanum* (F.).
Perilitus communis Cresson, 1872. Canad. Ent. 4: 82. ♂ ♀.
Perilitus intermedius Cresson, 1872. Canad. Ent. 4: 82. ♀.
Meteorus petiolariferus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 223. ♂.
Meteorus pretiosus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 223.

crassifemur Muesebeck. Ill., Kans., S. Dak., Tex.
Meteorus crassifemur Muesebeck, 1939. Ent. Soc. Wash. Proc. 4: 84. ♀.

datanae Muesebeck. Maine, Conn., N. J., Pa. Hosts: *Datana integerrima* G. and R.; *D. ministra* (Drury); *D. angusii* G. and R.
Meteorus datanae Muesebeck, 1923. U. S. Natl. Mus. Proc. 63 (2): 11, 38. ♀.

dimidiatus (Cresson). U. S. and southeast. Canada. Host: *Desmia funeralis* (Hbn.)
Perilitus dimidiatus Cresson, 1872. Canad. Ent. 4: 83. ♀ ♂.
Meteorus noctivagus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 281. ♀.

euschausiae Muesebeck. Colo., Ariz., Wash.; Mexico. Hosts: *Halisidota ingens* Hy. Edw.; *H. argentata* Pack.
Meteorus euschausiae Muesebeck, 1923. U. S. Natl. Mus. Proc. 63 (2): 11, 37. ♀ ♂.

fumipennis Muesebeck. Wash., Calif.
Meteorus fumipennis Muesebeck, 1923. U. S. Natl. Mus. Proc. 63 (2): 8, 20. ♀.

hicoriae Muesebeck. Pa., "Huron Mts. L. S."
Meteorus hicoriae Muesebeck, 1923. U. S. Natl. Mus. Proc. 63 (2): 9, 25. ♀.

humilis (Cresson). Southeast. Canada and north. U. S. south to Va. and Colo. Hosts: *Orchesia castanea* Melsh.; *Platydema ellipticum* (F.); *Tinea oregonella* Busck; *Nemapogon granella* (L.).
Perilitus humilis Cresson, 1872. Canad. Ent. 4: 84. ♀.
Perilitus robustus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 125. ♀.
Meteorus orchesiae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 643. ♂ ♀.
Meteorus agilis Viereck, 1903. Amer. Ent. Soc. Trans. 29: 94. ♀ ♂.

hyphantriae Riley. All of U. S. and Canada. Hosts: *Hyphantria cunea* (Drury); *Malacosoma americanum* (F.); *M. disstria* Hbn.; *Caenurgina erechtea* Cram.; *Protoleucania albilinea* (Hbn.); *Halisidota argentata* Pack.; *Hemileuca maia* (Drury); *Paleacrita vernata* (Peck); *Alsophila pometaria* (Harr.); *Perispasta caeculalis* Zell.; *Olethreutes* sp.; *Hemerocampa leucostigma* (A. and S.).
Meteorus hyphantriae Riley, 1887. U. S. Dept. Agr. Ann. Rpt. for 1886, p. 532. ♀ ♂.
Meteorus oecopsidis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc.1 1: 642. ♂.
Meteorus floridanus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 642. ♂.
Meteorus relativus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 280. ♂.
Meteorus triangularis Muesebeck, 1919. Canad. Ent. 51: 115. ♀ ♂.

hypophlaei Cushman, emend. Wash., Oreg., Mont., Wyo. Host: *Hypophlaeus* sp.
Meteorus hypophloei Cushman, 1931. Wash. Acad. Sci. Jour. 21: 302. ♀ ♂.

indagator (Riley). Maine to Fla., west to Kans. and Tex.; Calif. Hosts: *Mineola juglandis* (Le B.); *M. indigenella* (Zell.); *Acrobasis betulella* Hulst; *A. caryivorella* Rag.; ?*A. caryae* Grote; *A. comptoniella* Hulst; *A. kearfottella* Dyar; *A. coryliella* Dyar; *Tetralopha subcanalis* (Wlkr.); *T. militella* Zell.; *Dioryctria xanthoenobares* Dyar; *Omphalocera dentosa* Grote.
Perilitus indagator Riley, 1872. Ins. Mo. Ann. Rpt. 4: 43. ♀.
Meteorus campestris Viereck, 1905. Kans. Acad. Sci. Trans. 19: 281. ♀.

islandicus (Ruthe). Greenland.
Perilitus islandicus Ruthe, 1859. Stettin. Ent. Ztg. 20: 317. ♀ ♂.

laphygmae Viereck. Tex. Hosts: *Laphygma frugiperda* (A. and S.); *L. exigua* (Hbn.). *Peridroma margaritosa* (Haw.); *Agrotis annexa* Treits.; *Heliothis armigera* (Hbn.); *Prodenia* sp.; *Elaphria nucicolora* Guen.; *Colias philodice eurytheme* Bdvl.; *Semiothisa punctolineata* (Pack.); *Autographa* sp.; *Leucania latiuscula* (H. and S.); *Cirphis unipuncta* (Haw.).
Meteorus laphygmae Viereck, 1913. U. S. Natl. Mus. Proc. 44: 560. ♀ ♂.

levis Muesebeck. N. Mex.
Meteorus levis Muesebeck, 1923. U. S. Natl. Mus. Proc. 63 (2): 7, 11. ♀.

loxostegei Viereck. Mass. to D. C., west to Idaho and N. Mex.; Alta., Sask. Hosts: *Loxostege sticticalis* (L.); *L. commixtalis* (Wlkr.); *Pyrausta futilalis* (Led.); *P. nubilalis* (Hbn.); *P. penitalis* (Grote); *Sparaganothis saracana* (Kearf.); *Phlyctaenia tertialis* (Guen.).
Meteorus loxostegei Viereck, 1911. U. S. Natl. Mus. Proc. 39: 401. ♂.
Biology: Simmonds, 1947. Bul. Ent. Res. 38 (pt. 2): 373–379.

maximus Muesebeck. Maine to N. C. west to Tex. and Colo.
Meteorus maximus Muesebeck, 1923. U. S. Natl. Mus. Proc. 63 (2): 7, 13. ♀.

niveitarsis (Cresson). Que., Ont., Maine, Mass., Pa., Md. Hosts: *Salebria subcaesiella* (Clem.); *Acrobasis comptoniella* Hulst.
Perilitus niveitarsis Cresson, 1872. Canad. Ent. 4: 81. ♂ ♀.

pallitarsis (Cresson). Que. to Pa. and Ohio.
Perilitus pallitarsis Cresson, 1872. Canad. Ent. 4: 81. ♂.

politus (Provancher). N. S., Ont., Mass., Iowa.
Perilitus politus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 126. ♀ ♂.

provancheri Dalla Torre. Canada.
Perilitus gracilis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 125. ♀. Preocc.
Meteorus provancheri Dalla Torre, 1898. Cat. Hym., v. 6, p. 112. N. name.

proximus (Cresson). Ont. to N. Y., Ill., Mich.
Perilitus proximus Cresson, 1872. Canad. Ent. 4: 83. ♂.
Meteorus exareolatus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 224. ♂.

reticulatus Muesebeck. N. H., "Wash. Terr."
Meteorus reticulatus Muesebeck, 1923. U. S. Natl. Mus. Proc. 63 (2): 7, 14. ♀ ♂.

tauricornis (Provancher). Ont. to Pa., west to Mich. and Iowa; Alaska.
Rhopalophorus tauricornis Provancher, 1880. Nat. Canad. 12: 168. ♀.

terebratus Muesebeck. Mich. Host: ?*Orchesia castanea* Melsh.
Meteorus terebratus Muesebeck, 1923. U. S. Natl. Mus. Proc. 63 (2): 9, 24. ♀ ♂.

tetralophae Muesebeck. N. Y. to Fla.; Ind. Hosts: *Tetralopha robustella* Zell.; *T. subcanalis* (Wlkr.).
Meteorus tetralophae Muesebeck, 1926. U. S. Natl. Mus. Proc. 69 (7): 2. ♀.

tibialis Muesebeck. Que., N. Y., Ga.
Meteorus tibialis Muesebeck, 1923. U. S. Natl. Mus. Proc. 63 (2): 9, 23. ♀ ♂.

trachynotus Viereck. N. H. to Fla.; B. C. to Calif.; La., Utah, Canada. Hosts: *Ancylis sp.*; *A. comptana fragariae* (W. and R.); *Archips argyrospila*

(Wlkr.); *Choristoneura fumiferana* (Clem.); *Grapholitha molesta* (Busck); *Sparganothis sulphurana* (F.); *Argyrotaenia citrana* (Fern.); *Acleris logiana* (L.).

Meteorus trachynotus Viereck, 1912. U. S. Natl. Mus. Proc. 42: 142. ♀ ♂.

Meteorus archipsidis Viereck, 1912. U. S. Natl. Mus. Proc. 43: 580. ♀.

versicolor (Wesmael). Europe; New England States, N. B., N. S., Wash. Hosts: *Nygmia phaeorrhoea* (Donov.); *Hemerocampa leucostigma* (A. and S.); *Notolophus antiquus* (L.); *Stilpnotia salicis* (L.).

Perilitus versicolor Wesmael, 1835. Nouv. Mém. Acad. Sci. Bruxelles 9: 43. ♂ ♀.

Perilitus bimaculatus Wesmael, 1835. Nouv. Mém. Acad. Sci. Bruxelles 9: 45. ♀.

Meteorus decoloratus Ruthe, 1862. Berlin. Ent. Ztschr. 6: 48. ♀.

Biology: Muesebeck, 1918. Jour. Agr. Res. 12: 191–206.

vitticollis (Holmgren). Calif.

Saprotichus vitticollis Holmgren, 1868. Eug. Resa I, Zool. I,. Ins., p. 431. ♂.

vulgaris (Cresson). All of U. S., south. Canada. Hosts: *Feltia subgothica* (Haw.); *Agrotis annexa* Treits.; *A. gladiaria* Morr.; *A. malefida* Guen.; *A. orthogonia* Morr.; *A. ypsilon* (Rott.); *Peridroma margaritosa* (Haw.); *P. margaritosa* form *saucia* (Hbn.); *Laphygma frugiperda* (A. and S.); *Chorizagrotis auxiliaris* form *agrestis* (Grote); *C.* sp.; *Scotogramma trifolii* (Rott.); *Euxoa excellens* (Grote); *Colias philodice eurytheme* Bdvl.; *Hellula undalis* (F.).

Perilitus vulgaris Cresson, 1872. Canad. Ent. 4: 83. ♂ ♀.

Meteorus coquilletti Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 642. ♂.

Meteorus mellinervis Viereck, 1903. Amer. Ent. Soc. Trans. 29: 95. ♀.

Meteorus mamestrae Viereck, 1913. U. S. Natl. Mus. Proc. 46: 364. ♀ ♂.

Genus CRYPTOXILOS Viereck

Cryptoxilos Viereck, 1911. U. S. Natl. Mus. Proc. 40: 180.
Type: ***Cryptoxilos dichromorphus*** Viereck. Monob. and orig. desig.

convergens Muesebeck. D. C., W. Va., N. C. Hosts: *Phthorophloeus frontalis* (Oliv.).

Euphorus phloeotribi Chittenden, 1893. U. S. Dept. Agr., Insect Life 5: 249. *Nom. nud.*

Cryptoxilos convergens Muesebeck, 1936. U. S. Dept. Agr. Misc. Pub. 241: 9. ♀ ♂.

Genus PERILITUS Nees

Perilitus Nees, 1818. Nov. Act. Acad. Caes. Leop. Car. 9: 302.
Type: ***Bracon rutilis*** Nees. Desig. by Westwood, 1839.

Dinocampus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 252.
Type: ***Bracon terminatus*** Nees. Monob. and orig. desig.

Biology: Jackson, 1928. Zool. Soc. London Proc., pt. 2: 597–630.

Parasites of adult Coleoptera.

coccinellae (Schrank). Cosmopolitan. Hosts: *Hippodamia convergens* Guér.; *H. 5-signata* (Kby.); *Coccinella californica* Mann.; *Coleomegilla maculata* (Deg.); *Cycloneda sanguinea* (L.); *C. trifasciata juliana* Muls.

Ichneumon coccinellae Schrank, 1802. Fauna Boica, v. 2, p. 310. ♀.

Bracon terminatus Nees, 1812 (1811). Mag. Gesell. Naturf. Freunde Berlin 5: 26. ♀ ♂.

Euphorus sculptus Cresson, 1872. Canad. Ent. 4: 227. ♀.

Centistes americana Riley, 1888. U. S. Dept. Agr., Insect Life 1: 103. ♀.

Biology: Cushman, 1913. Ent. Soc. Wash. Proc. 15: 153–155.

pyri (Viereck). Conn., N. J.

Dinocampus pyri Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 225. ♀.

Genus MICROCTONUS Wesmael

Microctonus Wesmael, 1835. Nouv. Mem. Acad. Sci. Bruxelles 9: 54.
Type: ***Perilitus aethiops*** Nees. Desig. by Foerster, 1862.
Gamosecus Provancher, 1880. Nat. Canad. 12: 167.
Type: ***Gamosecus mellinus*** Provancher. Desig. by Viereck, 1914.

Apparently all species are parasites in the adults of Coleoptera.

carabivorus Muesebeck. Va. (Lake Smith). Host: *Galerita* sp.
Microtonus carabivorus Muesebeck, 1936. U. S. Dept. Agr. Misc. Pub. 241: 15, 16. ♀ ♂.

eleodis (Viereck). Nebr., Kans., Colo., N. Mex., Idaho, Wash. Hosts: *Eleodes suturalis* (Say); *E. opaca* (Say); *E. obsoleta* (Say); *E. hispilabris* (Say); *E. extricata* (Say); *E. tricostata* (Say); *E. vandykei* Blaisd.; *Embaphion muricatum* Say; *E. planum* Horn.
Perilitus eleodis Viereck, 1913. U. S. Natl. Mus. Proc. 44: 561. ♀ ♂.

epitricis (Viereck). N. J. to Va., west to Ill. and Tenn. Hosts: *Epitrix parvula* (F.); *E. cucumeris* (Harr.).
Perilitus epitricis Viereck, 1912. U. S. Natl. Mus. Proc. 42: 625. ♀ ♂.

gastrophysae (Ashmead). D. C., Va. Hosts: *Gastrophysa cyanea* Melsh.; *Gastrophysa* sp.
Perilitus gastrophysae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 641. ♀.

mellinus (Provancher). Mass., D. C., Md., Va., Ga.
Gamosecus mellinus Provancher, 1880. Nat. Canad. 12: 168. ♀.

nigritus (Provancher). Que., Mich.
Perilitus nigritus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 379. ♂.

pusillae Muesebeck. Colo., Ariz., Idaho, Wash. Hosts: *Phyllotreta pusilla* Horn; *Epitrix subcrinita* (Lec.).
Microctonus pusillae Muesebeck, 1936. U. S. Dept. Agr. Misc. Pub. 241: 20. ♀ ♂.

vittatae Muesebeck. D. C., Va., Ohio, La.; Japan. Hosts: *Phyllotreta vittata* (F.); *P. zimmermani* (Cr.).
Microctonus vittatae Muesebeck, 1936. U. S. Dept. Agr. Misc. Pub. 241: 19. ♀.

Genus WESMAELIA Foerster

Wesmaelia Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 251.
Type: ***Wesmaelia pendula*** Foerster. Monob. and orig. desig.

pendula Foerster. Europe; Ont. to Md. west to Wash. and N. Mex.
Wesmaelia pendula Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 251.
Wesmaelia cremasta Marshall, 1872. Ent. Monthly Mag. 8: 257. ♀.
Wesmaelia americana Myers, 1917. U. S. Natl. Mus. Proc. 53: 293. ♀ ♂.
Wesmaelia asiatica Shestakov, 1932. Zool. Anz. 99: 261.

Genus MYIOCEPHALUS Marshall

Myiocephalus Marshall, 1897. *In* Andre, Spec. Hym. Eur. Alg., v. 5 bis, p. 218.
Type: ***Microctonus boops*** Wesmael. Monob.
Spilomma Morley, 1909. Ent. Monthly Mag. (2) 20: 211.
Type: ***Spilomma falconivibrans*** Morley. Monob.

boops (Wesmael). Europe; Ont., Alta., N. Y., Colo., Ariz.
Microctonus boops Wesmael, 1835. Nouv. Mem. Acad. Sci. Bruxelles 9: 59. ♀.
Gamosecus laticeps Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 126. ♀.

Genus SYNTRETUS Foerster

Syntretus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 251.
Type: ***Microctonus vernalis*** Wesmael. Monob. and orig. desig.

brevicornis Muesebeck. Ill., Pa., N. C.
Syntretus brevicornis Muesebeck, 1936. U. S. Dept. Agr. Misc. Pub. 241: 23, 24. ♀ ♂.

venustus Muesebeck. Ala. (Langdale).
Syntretus venustus Muesebeck, 1936. U. S. Dept. Agr. Misc. Pub. 241: 23. ♀.

vigilax (Provancher). Ont., N. Y., Colo.
Gamosecus vigilax Provancher, 1880. Nat. Canad. 12: 167. ♂ ♀.

Genus EUPHORIELLA Ashmead

Euphoriella Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 116.
Type: *Labeo incertus* Ashmead. Monob. and orig. desig.

incerta (Ashmead). Pa. to Fla.; Ill., Mich., Tex.
Labeo incertus Ashmead, 1887. Ent. Amer. 3: 74. "♀"=♂.

pacifica Muesebeck. Calif. (Mountain View).
Euphoriella pacifica Muesebeck, 1936. U. S. Dept. Agr. Misc. Pub. 241: 26. ♀.

Genus EUPHORIANA Gahan

Euphoriana Gahan, 1913. U. S. Natl. Mus. Proc. 46: 433.
Type: *Euphoriana uniformis* Gahan. Monob. and orig. desig.

Parasitic in Heteroptera.

uniformis Gahan. N. Y. to La., west to Mich. and Kans.; Ariz., S. Dak. Host: *Lygus pratensis* (L.).
Euphoriana uniformis Gahan, 1913. U. S. Natl. Mus. Proc. 46: 433. ♂ ♀.

Genus EUPHORUS Nees

Euphorus Nees, 1834. Hym. Ichn. Aff. Monog., v. 2, p. 360.
Type: *Euphorus pallicornis* Nees. Monob.
Peristenus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 251.
Type: *Microctonus barbiger* Wesmael. Monob. and orig. desig.

The few reliable records indicate that the species of this genus are parasites of Heteroptera.

cephalicus (Provancher). Ont.
Microctonus cephalicus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 127. ♂.

levifrons Muesebeck. Colo.
Euphorus levifrons Muesebeck, 1936. U. S. Dept. Agr. Misc. Pub. 241: 32. ♀.

maculipennis (Ashmead). Fla., Colo.
Sierola maculipennis Ashmead, 1887. Ent. Amer. 3: 75. ♀.

occipitalis Muesebeck. Calif., "Cañon Colorado River."
Euphorus occipitalis Muesebeck, 1936. U. S. Dept. Agr. Misc. Pub. 241: 29. ♀.

pallipes (Curtis). East Canada to Ala., north. U. S. from N. Y. to Oreg.; Alaska. Hosts: *Lygus* spp.
Leiophron pallipes Curtis, 1833. Brit. Ent., v. 10, no. 476.
Microctonus barbiger Wesmael, 1835. Nouv. Mem. Acad. Sci. Bruxelles 9: 69. ♂ ♀.
Euphorus mellipes Cresson, 1872. Canad. Ent. 4: 227. ♂.
Microctonus punctatus Provancher, 1883. Nat. Canad. 14: 17. ♂.
Brachistes nocturnus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 279. ♂. N. syn.
Biology: Brindley, 1939. Roy. Ent. Soc. London Proc. Ser. A: Gen. Ent. 14: 51–56.

scitulus Cresson. Ill.
Euphorus scitulus Cresson, 1872. Canad. Ent. 4: 227. ♀.

spiniscapus Muesebeck. Colo. (Steamboat Springs).
Euphorus spiniscapus Muesebeck, 1936. U. S. Dept. Agr. Misc. Pub. 241: 29, 30. ♀.

tuberculatus Muesebeck. Fla. (Jacksonville).
Euphorus tuberculatus Muesebeck, 1936. U. S. Dept. Agr. Misc. Pub. 241: 29, 31. ♀ ♂.

Subfamily MACROCENTRINAE

Internal parasites of lepidopterous larvae. The gregarious forms seem to be polyembryonic.

Genus MACROCENTRUS Curtis

Macrocentrus Curtis, 1833. Ent. Mag. 1: 187.
Type: *Macrocentrus bicolor* Curtis. Monob.
Amicroplus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 256.
Type: *Bracon collaris* Spinola. Monob.
Fhogra Cameron, 1901. New Zeal. Inst. Trans. 33: 104.
Type: *Fhogra rubromaculata* Cameron. Monob.
Leptozele Cameron, 1910. Tijdschr. v. Ent. 53: 52.
Type: *Leptozele trimaculatus* Cameron. Monob.
Dolichozele Viereck, 1911. U. S. Natl. Mus. Proc. 40: 182.
Type: *Dolichozele koebelei* Viereck. Monob.
Metapleurodon Enderlein, 1920. Arch. f. Naturgesch. 84 A (11): 213.
Type: *Macrocentrus ceylonicus* Enderlein. Orig. desig.
Paniscozele Enderlein, 1920. Arch. f. Naturgesch. 84 A (11): 214.
Type: *Paniscozele sumatrana* Enderlein. Orig. desig.
Pachymerella Enderlein, 1920. Arch. f. Naturgesch. 84 A (11): 217.
Type: *Pachymerella maculicoxa* Enderlein. Orig. desig.
Revision: Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 1–55.

aegeriae Rohwer. All U. S. except the southern tier of states. Hosts: *Synanthedon castaneae* Busck; *S. pictipes* (G. and R.); *Laspeyresia cupressana* (Kearf.); *Sanninoidea exitiosa* (Say); *Ramosia tipuliformis* (Clerck); *Thamnosphecia americana* (Beut.); *Gretchena bolliana* (Sling.).
Macrocentrus aegeriae Rohwer, 1915. Ent. Soc. Wash. Proc. 17: 56. ♀.

affinis Muesebeck. N. H., N. Y.
Macrocentrus affinis Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 10, 42. ♀.

ancylivorus Rohwer. U. S. Hosts: *Grapholitha molesta* (Busck); *Ancylis comptana* (Froel.); *Canarsia* sp.; *"Epagoge* sp."; *Homeosoma electellum* (Hulst); *Anacampsis* sp.; *Carpocapsa pomonella* (L.); *Exartema sericoranum* Wlsm.
Macrocentrus ancylivora Rohwer, 1923. Ent. Soc. Wash. Proc. 25: 168. ♀ ♂.
Biology: Daniel, 1932. N. Y. State Agr. Expt. Sta. Tech. Bul. 187: 3–101.—Haeussler, 1932. Jour. Agr. Res. 45 (2): 79–100.—Garman and Brigham, 1933. Conn. Agr. Expt. Sta. Bul. 356: 73–116.
Economics: Steenburgh and Bryce, 1938. Ent. Soc. Ontario Ann. Rpt. 69: 65–73.—Bobb, 1942. Va. Agr. Expt. Sta. Tech. Bul. 79: 1–16.

atratus Muesebeck. Maine, N. Y., Pa., Md., Va.
Macrocenturs atratus Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 8, 23. ♀.

bradleyi Daniel. N. S.
Macrocentrus bradleyi Daniel, 1933. Canad. Ent. 65 (2): 25. ♀.

canarsiae Muesebeck. Ont., Mass., Ohio, Mich., Iowa, Ark., Kans., S. Dak. Hosts: *Canarsia* sp.; *Psorosina hammondi* (Riley).
Macrocentrus canarsiae Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 8, 26. ♀.
Macrocentrus insularis Muesebeck, 1932. U. S. Natl Mus. Proc. 80 (23): 8, 27. ♀. N. syn.

cerasivoranae Viereck. All U. S.; south. Canada. Hosts: *Archips fervidana* (Clem.);

A. cerasivorana (Fitch); *Archips* sp.
Macrocentrus cerasivoranae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 623. ♀.

clypeatus Muesebeck. Pa., Md., Va., N. J., N. Y.
Macrocentrus clypeatus Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 8, 28. ♀ ♂.

crambi (Ashmead). Ind., Va., Tenn., Pa., S. Dak., Ill., Fla. Hosts: *Crambus zeellus* Fern.; *C. mutabilis* Clem.; *C. trisectus* (Wlkr.).
Amicoplus (!) ***crambi*** Ashmead, 1894. Cincinnati Soc. Nat. Jour. 17: 48. ♂.

crambivorus Viereck. Canada to Fla. and west to the Rocky Mts. Hosts: *Crambus topiarius* Zell.; *C. caliginosellus* Clem.
Macrocentrus (Amicroplus) crambivorus Viereck, 1911. U. S. Natl. Mus. Proc. 40: 183. ♀ ♂.
Macrocentrus (Amicroplus) plesius Viereck, 1913. U. S. Natl. Mus. Proc. 44: 556. ♀ ♂.

crassipes Muesebeck. N. Y., Vt., Mont. Host: *Crymodes devastator* (Brace).
Macrocentrus crassipes Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 5, 13. ♀ ♂.

crocidophorae Muesebeck. La., N. C., S. C. Host: *Crocidophora pustuliferalis* Led.
Macrocentrus crocidophorae Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 7, 22. ♂.

cuniculus Walley. Ont., N. B., Idaho, Mont., Calif. Hosts: *Petrova albicapitana* Busck; *P. metallica* (Busck).
Macrocentrus cuniculus Walley, 1933. Canad. Ent. 65: 260. ♀.

delicatus Cress. Mass. to Fla. and west to Iowa and Tex. Hosts: *Grapholitha molesta* (Busck); *Epiblema strenuana* (Wlkr.); *E. tripartitana* (Zell.); *Pyrausta nubilalis* (Hbn.); *Rhopobota naevana* (Hbn.); *Carpocapsa pomonella* (L.); *Aristotelia absconditella* (Wlkr.); *Euzophera ostricolorella* Hulst; *Gretchena bolliana* (Sling.); *Tetralopha subcanalis* (Wlkr.); *Papaipema nebris* (Guen.); *Episimus argutanus* (Clem.).
Macrocentrus delicatus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 178. ♂ ♀.

exartemae Walley. Ont., Maine, N. J. Hosts: *Exartema cornanum* Heinr.; *E. fasciatanum* Clem.; *E. footinanum* (Fern.).
Macrocentrus exartemae Walley, 1932. Canad. Ent. 64: 183. ♀.

gifuensis Ashmead. Japan; Europe; Mass., R. I., Mich., Ky. Host: *Pyrausta nubilalis* (Hbn.).
Macrocentrus gifuensis Ashmead, 1906. U. S. Natl. Mus. Proc. 30: 191. ♀.
Biology: Parker, 1931. U. S. Dept. Agr. Tech. Bul. 230: 1–63.

gravitarsis Muesebeck. Calif., N. Mex. Host: *Halisidota argentata* Pack.
Macrocentrus gravitarsis Muesebeck, 1938. Ent. Soc. Wash. Proc. 40: 170. ♀.

impressus Muesebeck. Mass. to Ga.
Macrocentrus impressus Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 8, 24. ♀.

incompletus Muesebeck. Kans., Okla., Nebr., Utah, Colo., S. Dak., Oreg. Hosts: "Cutworm larvae"; *Chorizagrotis auxiliaris* (Grote).
Macrocentrus incompletus Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 5, 12. ♀ ♂.

infumatus Muesebeck. Mich. (Douglas Lake). Host: ?*Schoenobius melinellus* (Clem.).
Macrocentrus infumatuus (!) Muesebeck, 1938. Ent. Soc. Wash. Proc. 40: 172. ♂.

innuitorum Walley. Baffin Isl.
Macrocentrus innuitorum Walley, 1936. Canad. Ent. 68: 187. ♀ ♂.

instabilis Muesebeck. N. Y. and Ohio to Fla. and Tex.; Wash. Hosts: *Grapholitha molesta* (Busck); *Laspeyresia caryana* (Fitch); *Coleophora malivorella* Riley; *Acrobasis caryivorella* Rag.; *A. hebescella* Hulst.; *A. juglandis* (Le B.); *A.*

sp.; *A. caryae* Grote; *A. betulella* Hulst; *Carpocapsa pomonella* (L.); *Rhyacionia rigidana* (Fern.).

Macrocentrus instabilis Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 9, 34. ♀ ♂.

Macrocentrus laspeyresiae Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 10, 37. ♀ ♂.

iridescens French. Mass. to Calif., Ill. Mont., Que., Ont. Hosts: *Archips argyrospila* (Wlkr.); *A. rosaceana* (Harr.); *A. rosana* (L.); *Choristoneura fumiferana* (Clem.); *Spilonota ocellana* D. and S.; *Harpipteryx frustrella* (Wlsm.); *Ennomos subsignarius* (Hbn.).

Macrocentrus iridescens French, 1880. Canad. Ent. 12: 43. ♀ ♂.

Macrocentrus amicroploides Viereck, 1912. U. S. Natl. Mus. Proc. 43: 579. ♀ ♂. N. syn.

longicornis Provancher. Ohio, Minn.

Macrocentrus longicornis Provancher, 1880. Nat. Canad. 12: 173. ♂.

mellipes Provancher. Mont., Que.

Macrocentrus mellipes Provancher, 1880. Nat. Canad. 12: 172. ♀.

nigridorsis Viereck. Que. to D. C. west to Alta. and Colo. Hosts: *Archips parallela* (Rob.); *A. purpurana* (Clem.); *A. melaleucana* (Wlkr.); *Adoxophyes persicana* (Fitch); *Exartema fasciatanum* Clem.; *Gnorimoschema* sp.

Macrocentrus nigridorsis Viereck, 1924. Canad. Ent. 56: 68. ♀ ♂.

Macrocentrus harrisi DeGant, 1930. Ent. Soc. Wash. Proc. 32: 164. ♀.

nigripectus Muesebeck. N. J., Mass. Host: *Ancylis* sp. near *comptana* Froel.

Macrocentrus nigripectus Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 9, 31. ♀ ♂.

nuperus Cresson. Md., Ga., Tex., Ariz.

Macrocentrus nuperus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 178. ♀.

pallisteri DeGant. Mass. and east. Canada to Mo. and Kans.; Calif., Tex. Hosts: *Epiblema otiosana* (Clem.); *E. scudderiana* (Clem.); *E. strenuana* Wlkr.; ?*Pyrausta nubilalis* (Hbn.); *Grapholitha molesta* (Busck).

Macrocentrus paediscae Riley 1891. U. S. Dept. Agr., Insect Life 3: 59. *Nom. nud.*

Macrocentrus pallisteri DeGant, 1930. Ent. Soc. Wash. Proc. 32: 65. ♀.

pectoralis Provancher. Mass. to N. C.; Ohio, S. Dak.

Macrocentrus pectoralis Provancher, 1880. Nat. Canad. 12: 173. ♂.

Macrocentrus fuscipennis Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 10, 43. ♀.

peroneae Muesebeck. Que., Ont. Hosts: *Acleris variana* (Fern); *Tortrix packardiana* Fern.

Macrocentrus peroneae Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 6, 17. ♀.

pulchripennis Muesebeck. Utah.

Macrocentrus pulchripennis Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 10, 40. ♀.

pyraustae Viereck. Mass. to Md. Hosts: *Pyrausta pertextalis* (Led.); ?*P. theseusalis* (Wlkr.).

Macrocentrus pyraustae Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 220. ♀.

reticulatus Muesebeck. Ga., Ala., Va., Ill.

Macrocentrus reticulatus Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 8, 25. ♀.

robustus Muesebeck. Mass., N. J. Host: *Pyrausta nubilalis* (Hbn.).

Macrocentrus robustus Muesebeck, 1932. U. S. Natl. Proc. 80 (23): 9, 29. ♀ ♂.

seminiger Muesebeck. Calif., Utah.

Macrocentrus seminiger Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 10, 41. ♀.

terminalis (Ashmead). Mass. to Pa., west to Minn. and Mo.

Zele terminalis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 652. ♂.

texanus Muesebeck. Tex., Ga.
Macrocentrus texanus Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 11, 49. ♀.

uniformis Provancher. N. Y. to Ga., west to Ill. and Kansas. Hosts: *Psychomorpha epimenis* (Drury); *Alypia octomaculata* (F.).
Macrocentrus uniformis Provancher, 1880. Nat. Canad. 12: 173. ♀.

utilis Muesebeck. Iowa, Kans., Ind., Md., Ala. Host: *Pyrausta ainsliei* Heinr.
Macrocentrus utilis Muesebeck, 1932. U. S. Natl. Mus. Proc. 80 (23): 9, 35. ♀ ♂.

Subfamily HELCONINAE

The species of this group, with few exceptions, appear to be parasitic on wood-boring coleopterous larvae. The Nearctic forms, however, are very imperfectly known.

Tribe CENOCOELIINI

Genus CENOCOELIUS Westwood

Cenocoelius Westwood, 1840. Introd. Mod. Classif. Ins., v. 2, Gen. Synop., p. 62.
Type: *Cenocoelius flavifrons* Westwood. Monob. and orig. desig.
Capitonius Brullé, 1846. *In* Lepeletier, Hist. Nat. Ins. Hym., v. 4, p. 544.
Type: *Capitonius bifasciatus* Brullé. Monob.
Laccophrys Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 257.
Type: *Laccophrys magdalini* Foerster. Monob and orig. desig.
Aulacodes Cresson, 1865. Ent. Soc. Phila. Proc. 4: 8.
Type: *Aulacodes nigriventris* Cresson. Monob.
Lestricus Reinhard, 1865. Berlin. Ent. Ztschr. 9: 265. N. syn.
Type: *Alysia rubriceps* Ratzeburg. Present desig.
Promachus Cresson, 1887. Amer. Ent. Soc. Trans. Sup. Vol., p. 61.
Type: *Promachus sanguineiventris* Ashmead. Desig. by Viereck, 1914.
Revision: Rohwer, 1914. Canad. Ent. 46: 316–322.

ashmeadii Dalla Torre. Mass. to Ga.; Ark., Iowa. Hosts: *Leiopus alpha* (Say); *L. fascicularis* (Harris); *L. cinereus* Lec.; ?*Scolytus muticus* Say.
Promachus rubriceps Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 653. ♂. Preocc.
Cenocoelius ashmeadii Dalla Torre, 1898. Cat. Hym., v. 4, p. 72. N. name.

caryae (Rohwer), n. comb. N. C., N. J., Mo. Host: *Sinoxylon* sp. in hickory.
Capitonius caryae Rohwer, 1914. Canad. Ent. 46: 317, 318. ♀.

erythrogastra (Rohwer), n. comb. Pa. to N. C., Ill. Host: *Saperda discoidea* F.
Capitonius erythrogastra Rohwer, 1914. Canad. Ent. 46: 317. ♀.

leptostyli (Rohwer), n. comb. Va., N. C., Iowa. Host: *Leptostylus* sp. (either *macula* (Say) or *collaris* (Hald.))in chestnut.
Capitonius leptostyli Rohwer, 1914. Canad. Ent. 46: 317, 319. ♂.

nigrisoma (Rohwer), n. comb. N. C. (Tryon). Host: *Microgoes oculatus* (Lec.).
Capitonius nigrisoma Rohwer, 1914. Canad. Ent. 46: 320. ♀ ♂.

provancheri (Rohwer), n. comb. Que., Ont., W. Va., N. C., La., Ga. Hosts: *Leiopus alpha* (Say); *L. fascicularis* (Harr.); *Lepturges facetus* (Say); *Hyperplatys aspersa* (Say).
Capitonius rubriceps Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 135. ♀. Preocc.
Capitonius provancheri Rohwer, 1914. Canad. Ent. 46: 317, 321. N. name.

sanguineiventris (Ashmead), n. comb. Ohio, Mo., Wis.
Promachus sanguineiventris Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 653. ♀.

saperdae (Ashmead), n. comb. Que. to Pa. west to Mich. and Kans. Hosts: *Saperda candida* F.; *S. tridentata* Oliv.

Promachus saperdae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 653.
Coenocelius (!) ***politifrons*** Viereck, 1905. Acad. Sci. Trans. 29: 279. ♂. N. syn.

tenuicornis (Rohwer), n. comb. Fla. (Ft. George).
Capitonius tenuicornis Rohwer, 1914. Canad. Ent. 46: 317, 321. ♀.

Tribe HELCONINI

Genus HELCONIDEA Viereck

Helconidea Viereck, 1914. U. S. Natl. Mus. Bul. 83: 67.
Type: ***Helcon aequator*** Nees. Monob. and orig. desig.

borealis (Cresson). Maine. Host: *Obrium maculatum* (Oliv.).
Helcon borealis Cresson, 1873. Canad. Ent. 5: 83. ♂.

castaneae (Viereck), n. comb. Conn., N. C., Ga.
Helcon castaneae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 623. ♀ ♂.

ferruginea (Brues), n. comb. N. C., Ga., Tex. Host: *Neoclytus acuminatus* (F.).
Helcon ferrugineus Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 158. ♀.

frigida (Cresson), n. comb. B. C., Wash., Oreg.
Helcon frigidus Cresson, 1873. Canad. Ent. 5: 84. ♀.

grandis (Ashmead), n. comb. La.
Helcon grandis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 655. ♀.

ligator (Say). Mass. to Ga. and Tex., west to Mich. and Mo.; Oreg. Host: *Neoclytus acuminatus* (F.).
Bracon ligator Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 323. ♀.
Helcon dentipes Brullé, 1846. *In* Lepeletier, Hist. Nat. Ins. Hym., v. 4, p. 479. ♀. N. syn.
Helcon albitarsis Cresson, 1873. Canad. Ent. 5: 83. ♂. N. syn.

necydalidis Cushman. B. C., Idaho, Oreg., Wash. Host: *Necydalis laevicollis* Lec.
Helconidea necydalidis Cushman, 1931. U. S. Natl. Mus. Proc. 79: 10. ♀ ♂.

occidentalis (Cresson), n. comb. Wash., Oreg., Calif., Colo., Nev., Mich. Host: *Semanotus nicolas* White.
Helcon occidentalis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 292. ♂.

Genus HELCON Nees

Helcon Nees, 1814 (1812). Mag. Gesell. Naturf. Freunde Berlin 6: 216.
Type: ***Helcon tardator*** Nees. Desig. by Westwood, 1839.
Gymnoscelus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 255.
Type: ***Helcon tardator*** Nees. Monob. and orig. desig.
Coelostephanus Kieffer, 1911. Soc. Ent. France Ann. 80: 232. N. syn.
Type: ***Coelostephanus rufus*** Kieffer. Monob.

fulvipes Cresson. B. C., "Colo. Terr.," Oreg., Wash., Mont.
Helcon fulvipes Cresson, 1865. Ent. Soc. Phila. Proc. 4: 292. ♀.

pedalis Cresson. Maine to N. C.; B. C., Wash., Oreg. Hosts: *Neoclytus muricatulus* (Kby.); *Callidium antennatum* Newm.
Helcon pedalis Cresson, 1873. Canad. Ent. 5: 85. ♀ ♂.

texanus Cresson. Tex.
Helcon texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 179. ♀.

yukonensis (Ashmead). Alaska, Wash., Oreg., Wis.
Gymnoscelis yukonensis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 656. ♀.

Genus EUMACROCENTRUS Ashmead

Eumacrocentrus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 120.
Type: ***Helcon americanus*** Cresson. Monob.

americanus (Cresson). Canada, N. Y., Pa., Md., Va., Mich.

Helcon americanus Cresson, 1873. Canad. Ent. 5: 84. ♀.
?Petalodes politus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 631. ♂. N. syn.

Tribe DIOSPILINI

Genus DIOSPILUS Haliday

Diospilus Haliday, 1833. Ent. Mag. 1: 262.
Type: ***Diospilus oleraceus*** Haliday. Monob.

curticaudis ***Gahan.*** La.; Mexico. Host: *Altica litigata* Fall.
Diospilus curticaudis Gahan, 1927. U. S. Natl. Mus. Proc. 71: 1. ♀.

polydrusi Gahan. N. Y. (Geneva). Host *Polydrusus impressifrons* Gyll.
Diospilus polydrusi Gahan, 1916. N. Y. Agr. Expt. Sta. Geneva Tech. Bul. 56: 23. ♀.

washingtonensis Rohwer. Wash.
Diospilus washingtonensis Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 163. ♀.

Genus METEORIDEA Ashmead

Meteoridea Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 129.
Type: ***Meteoridea longiventris*** Ashmead. Monob. and orig. desig.

longiventris Ashmead. Fla. (Jacksonville).
Meteoridea longiventris Ashmead, 1900. U. S. Natl. Mus. 23: 129.

Genus TAPHAEUS Wesmael

Taphaeus Wesmael, 1835. Nouv. Mem. Acad. Sci. Bruxelles 9: 189.
Type: ***Taphaeus irregularis*** Wesmael. Desig. by Viereck, 1914.
Anostenus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 257.
Type: ***Taphaeus irregularis*** Wesmael. Monob. and orig. desig.

californicus (Rohwer), n. comb. Calif. (Santa Cruz Mts.).
Diospilus californicus Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 164. ♀.

neoclyti (Rohwer), n. comb. Colo. (No. Cheyenne Canyon). Host: *Neoclytus caprae* (Say).
Diospilus neoclyti Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 165. ♂.

Tribe ZELINI

Genus ZELE Curtis

Zele Curtis, 1832. Brit. Ent., v. 9, p. 415.
Type: ***Zele testaceator*** Curtis. Orig. desig.
Phylax Wesmael, 1835. Nouv. Mem. Acad. Sci. Bruxelles 9: 159. Preocc.
Type: ***Rogas annulicornis*** Nees. Desig. by Westwood, 1839.
Phylacter Reinhard, 1863. Berlin. Ent. Ztschr. 7: 248. N. name.
Type: ***Rogas annulicornis*** Nees. Autob.

crassicalcarata Viereck. Kans., Ill., Colo., Mont., Oreg.
Zele crassicalcaratus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 279. ♂.

mellea (Cresson). D. C. to Fla. and Tex., west to Iowa and Kans. Hosts: *Laphygma frugiperda* (A. and S.); *Agrotis venerabilis* Wlkr.
Phylax melleus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 178. ♀.

Unrecognized Species in Zele Curtis

Bracon truncator Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 78.

Subfamily BLACINAE

The Nearctic representatives of this subfamily are mostly undescribed.

Genus NEOBLACUS Ashmead

Neoblacus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 122.
Type: *Neoblacus rufipes* Ashmead. Monob. and orig. desig.

rufipes Ashmead. Que., N. H., Mass., Md.
Neoblacus rufipes Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 122.

Genus BLACUS Nees

Blacus Nees, 1818. Nov. Act. Acad. Caes. Leop. Car. 9: 306.
Type: *Bracon humilis* Nees. Desig. by Westwood, 1839.
Ganychorus Haliday, 1835. Ent. Mag. 3: 39, 40.
Type: *Bracon ruficornis* Nees. Desig. by Westwood, 1839.
Goniocormus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 254.
Type: *Blacus paganus* Haliday. Monob. and orig. desig.

bisstigmatus (Say), n. comb. Ind., S. Dak.
Microgaster bisstigmata Say, 1836. Boston Jour. Nat. Hist. 1: 264.

defectuosus Provancher. Ont. (Ottawa).
Blacus defectuosus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 133. ♀.

lactucaphis (Fitch). N. Y.
Aphidius lactucaphis Fitch, 1855 (1854). N. Y. State Agr. Soc. Trans. 14: 840.

longicauda Provancher. Ont. (Ottawa).
?*Blacus longicaudus* Provancher, 1886. Addit. Corr. Faune Ent. Canada, Hym., p. 133. ♀.

rufipes (Ashmead), n. comb. Ind. (Lafayette).
Dimeris rufipes Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 626. ♀.

Genus HYSTEROBOLUS Viereck

Hysterobolus Viereck, 1913. U. S. Natl. Mus. Proc. 44: 559.
Type: *Hysterobolus mallochi* Viereck. Monob. and orig. desig.

mallochi Viereck. Va. (Rosslyn).
Hysterobolus mallochi Viereck, 1913. U. S. Natl. Mus. Proc. 44: 560. ♀.

Genus CENTISTES Haliday

Centistes Haliday, 1835. Ent. Mag. 2: 462.
Type: *Ancylus cuspidatus* Halliday. Monob.
Ancylus Haliday, 1833. Ent. Mag. 1: 261. Preocc.
Type: *Ancylus cuspidatus* Haliday. Desig. by Viereck, 1914.
Euphoridea Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 116.
Type: *Euphoridea claripennis* Ashmead. Monob. and orig. desig.
Liosigalphus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 125.
Type: *Liosigalphus politus* Ashmead. Monob. and orig. desig.

claripennis (Ashmead). Mich., Ky., Iowa.
Euphoridea claripennis Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 116.

politus (Ashmead). D. C.
Liosigalphus politus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 125.

Genus SYRRHIZUS Foerster

Syrrhizus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 254.
Type: *Syrrhizus delusorius* Foerster. Monob. and orig. desig.

agilis (Cresson). N. Y., Md., Ohio, Ill.
Microctonus agilis Cresson, 1872. Canad. Ent. 4: 226. ♂.

diabroticae Gahan. Ohio, Ill. Host: *Acalymma vittata* (F.).
Syrrhizus diabroticae Gahan, 1922. Ohio Jour. Sci. 22: 140. ♀.

Genus ORGILUS Haliday

Orgilus Haliday, 1833. Ent. Mag. 1: 262.
Type: ***Microdus obscurator*** Nees. Monob.
Ischius Wesmael, 1837. Nouv. Mem. Acad. Sci. Bruxelles 10: 20.
Type: ***Microdus obscurator*** Nees. Present desig.
Macropalpus Ratzeburg, 1844. Ichn. d. Forstins., v. 1, p. 56.
Type: ***Eubadizon leptocephalus*** Hartig. Monob.
Oresimus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 123.
Type: ***Eubadizon maculiventris*** Cresson. Monob.
Orgilomorpha Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 129.
Type: ?***Ganychorus gelechiae*** Ashmead. Monob.

californicus (Provancher), n. comb. Calif. Host: *Gnorimoschema operculella* (Zell.).
Eubadizon Californicus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 383. ♀.

cuneatus (Provancher), n. comb. Que.
Blacus cuneatus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 383. ♀.

detectiformis Viereck. Mass., Conn., Ind., Ill.
Orgilus detectiformis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 226. ♂.

detectus Provancher. Ont. (Ottawa).
Orgilus detectus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 139. ♀.

dioryctriae Gahan. Calif. (Patrick's Creek). Host: *Dioryctria xanthoenobares* Dyar.
Orgilus dioryctriae Gahan, 1919. U. S. Natl. Mus. Proc. 55: 121. ♀ ♂.

gelechiae (Ashmead), n. comb. Maine to Fla., west to Mo. and Tex. Host: *Evippe prunifoliella* Chamb.; *Bucculatrix* sp.; *Cameraria cincinnatiella* (Chamb.); *C. hamadryadella* (Clem.).
?***Ganychorus gelechiae*** Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 645. ♀.
Eubadizon lithocolletidis Viereck, 1912. U. S. Natl. Mus. Proc. 42: 622. ♀. N. syn.

gelechiaevorus Cushman. N. J., Va., Fla., Ky., Iowa, Tex. Hosts: *Aroga trialbamaculella* (Chamb.); *Grapholitha molesta* (Busck).
Orgilus gelechiaevora Cushman, 1920. U. S. Natl. Mus. Proc. 58: 291. ♀.

gracilis (Brues), n. comb. Minn. (Minneapolis).
Blacus gracilis Brues, 1908. Wis. Nat. Hist. Soc. Bul. 6: 55. ♀.

maculiventris (Cresson). N. J. to Fla., west to Mo. and Tex.; Calif. Hosts: *Mineola* sp.; *M. indiginella* (Zell.); *Acrobasis caryae* Grote; *A.* sp.; *Eucordylea mackiei* Keif.; *Recurvaria juniperella* Kearf.
Eubadizon maculiventris Cresson, 1872 (Nov.). Amer. Ent. Soc. Trans. 4: 178. ♂.
Eubadizon lateralis Cresson, 1872 (Dec.). Canad. Ent. 4: 229. ♂. N. syn.
Orgilus kearfotti Ashmead, 1903. N. Y. Ent. Soc. Jour. 11: 144. ♂. N. syn.

mellipes (Say). Va. to Ga., west to Mo. and Tex. Host: *Keiferia glochinella* (Zell.)
Microgaster mellipes Say, 1836. Boston Jour. Nat. Hist. 1: 261. ♂.
Ischius laeviventris Cresson, 1872. Amer. Ent. Soc. Trans. 4: 182. ♂. N. syn.
Eubadizon incognitus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 644. ♀. N. syn.

obscurator (Nees). Canada, Conn. Host: *Rhyacionia buoliana* (Schiff.).
Microdus obscurator Nees, 1814 (1812). Mag. Gesell, Naturf. Freunde Berlin 6: 186. ♀.
Eubadizon leptocephalus Hartig, 1838. Jahresber. Fortschr. Forstw. 1: 268. ♀ ♂.

Genus EUBADIZON Nees

Eubazus Nees, 1814 (1812). Mag. Gesell. Naturf. Freunde Berlin 6: 214.
Type: ***Eubazus pallipes*** Nees. Desig. by Viereck, 1914.
Eubadizon Nees, 1834. Hym. Ichn. Aff. Monog., v. 1, p. 233. Emend.

Type: ***Eubazus pallipes*** Nees. Autob.

Eubadizus Nees, 1834. Hym. Ichn. Aff. Monog., v. 1, p. 233. Emend.
Type: ***Eubazus pallipes*** Nees. Autob.

Calyptus Haliday, 1835. Ent. Mag. 3: 128.
Type: ***Eubazus macrocephalus*** Nees. Desig. by Westwood, 1839.

Brachistes Wesmael, 1835. Nouv. Mem. Acad. Sci. Bruxelles 9: 109.
Type: ***Brachistes ruficoxis*** Wesmael. Desig. by Foerster, 1862.

Allodorus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 242. N. syn.
Type: ***Sigalphus semirugosus*** Nees, 1816. Monob. and orig. desig.

Provancheria Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 109.
Type: ***Eubadizon gracilis*** Provancher, 1880. Monob. and orig. desig.

americanum Cresson. Mich., N. J., N. Y.
Eubadizon americanus Cresson, 1872. Canad. Ent. 4: 230. ♀.

atricornis (Ashmead), n. comb. Calif. Host: Cynipid gall on *Quercus douglasi.*
Ganychorus atricornis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 645. ♀ ♂.

basilare Provancher. Que. (Madeleine Isl.).
Eubadizon basilare Provancher, 1890. Nat. Canad. 19: 248. ♀.

crassigaster (Provancher), n. comb. Que.. N. B., Maine.
Brachistes crassigaster Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 132. ♀ ♂.

gracile Provancher. Canada, Maine. Host: *Recurvaria piceaella* Kearf.
Eubadizon gracilis Provancher, 1880. Nat. Canad. 12: 171. ♀.

laeve (Cresson), n. comb. Canada, Ohio. Mich.
Leiophron laevis Cresson, 1872. Canad. Ent. 4: 228. ♂.

major (Cresson), n. comb. Canada, Va., Ohio, Ind., Ill.
Calyptus major Cresson, 1872. Canad. Ent. 4: 228. ♀.

orchesiae (Ashmead), n. comb. Conn., Md., Ga., Mich. Host: *Orchesia castanea* Melsh.
Ganychorus orchesiae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 645. ♀.

phymatodis Ashmead. N. Y., D. C., Ill., Mich. Host: *Phymatodes amoenum* Say.
Eubadizon phymatodis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 644. ♀.

pleurale Cresson. Conn. to Ga., west to N. Dak. and Utah; Alta. Hosts: *Grapholitha molesta* (Busck); *Ancylis comptana fragariae* (W. and R.); *Carpocapsa pomonella* (L.).
Eubadizon pleuralis Cresson, 1872. Canad. Ent. 4: 230. ♂ ♀.

rotundiceps (Cresson). n. comb. Que. to Pa., west to Ont. and Iowa. Hosts: *Magdalis olyra* (Hbst.); *M. armicollis* (Say); *M. barbita* (Say).
Calyptus rotundiceps Cresson, 1872. Canad. Ent. 4: 228. ♂.
Calyptus magdalis Cresson, 1878. Psyche 2: 189. ♂ ♀. N. syn.
Brachistes magdali Brues, 1910. Wis. Nat. Hist. Soc. Bul. 8: 50. ♀ ♂. N. syn.

strigitergum (Cushman), n. comb. B. C., Oreg.
Brachistes strigitergum Cushman, 1929. U. S. Natl. Mus. Proc. 76: 15. ♀.

submucronatus Provancher. Canada.
Eubadizon submucronatus Provancher, 1880. Nat. Canad. 12: 171. ♂ ♀.

trisectus (Provancher). Que.
Sigalphus trisectus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 143. ♂.

Genus STANTONIA Ashmead

Stantonia Ashmead, 1904. U. S. Natl. Mus. Proc. 28: 146.
Type: ***Stantonia flava*** Ashmead. Monob.

carpocapsae Muesebeck. Va., N. C., Ky. Hosts: *Carpocapsa pomonella* (L.); *Desmia funeralis* (Hbn.); *Eustixia pupula* Hbn.; *Harrisina americana* (Guer.).
Stantonia carpocapsae Muesebeck, 1938. Ent. Soc. Wash. Proc. 40: 90. ♀.

Genus MICROTYPUS Ratzeburg

Microtypus Ratzeburg, 1848. Ichn. d. Forstins., v. 2, p. 47.
Type: ***Microtypus wesmaelii*** Ratzeburg. Monob.

dioryctriae Rohwer. Calif. (Patrick's Creek). Host: *Dioryctria xanthoenobares* Dyar.
Microtypus dioryctriae Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 227. ♀ ♂.

Genus SCHIZOPRYMNUS Foerster

Schizoprymnus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 242.
Type: ***Sigalphus obscurus*** Nees. Monob. and orig. desig.

americanus Ashmead. Tex.
Schizoprymnus americanus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 636. ♀.

brevipennis (Melander and Brues), n. comb. Mass. In burrow of *Halictus pruinosus* Robt.
Chelonus brevipennis Melander and Brues, 1903. Biol. Bul. 5: 20. ♀.

phillipsi Viereck. Ind. (Richmond).
Schizoprymnus phillipsi Viereck, 1911. U. S. Natl. Mus. Proc. 39: 401. ♀ ♂.

texanus (Cresson). W. Va., Ohio, and Mich. west to Calif.
Sigalphus texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 179. ♀.

Genus UROSIGALPHUS Ashmead

Urosigalphus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 637.
Type: ***Urosigalphus armatus*** Ashmead. Orig. desig.
Rhyssosigalphus Cameron, 1904. Amer. Ent. Soc. Trans. 30: 260.
Type: ***Rhyssosigalphus rugosus*** Cameron. Monob.
Revision: Crawford, 1914. Insecutor Inscitiae Menstruus 2: 22–27.

Parasitic on larvae of Coleoptera.

anthonomi Crawford. Tex. (Brownsville). Hosts: *Anthonomus grandis* Boh.; *Chalcodermus aeneus* Boh.
Urosigalphus anthonomi Crawford, 1907. Canad. Ent. 39: 133. ♀ ♂.

arizonensis Crawford. Ariz., Calif. Host: *Neltumius arizonensis* (Schaeff.).
Urosigalphus arizonensis Crawford, 1914. Insecutor Inscitiae Menstruus 2: 23, 24. ♀ ♂.

armatus Ashmead. Va., Tenn. Host: *Curculio* sp.
Urosigalphus armatus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 637. ♀ ♂.

barberi Crawford. N. J. to S. C. west to Tex. and Calif. Host: *Curculio* spp.
Urosigalphus barberi Crawford, 1914. Insecutor Inscitiae Menstruus 2: 22, 23. ♀.

bruchi Crawford. Tex., Ariz., Hawaii, Panama, West Indies. Hosts: *Algarobius* sp. in *Prosopis*; *Amblycerus robiniae* (F.).
Urosigalphus bruchi Crawford, 1907. N. Y. Ent. Soc. Jour. 15: 181. ♀ ♂.

bruchivorus Crawford. Calif., Ariz. Host: *Bruchus* sp.
Urosigalphus bruchivorus Crawford, 1914. Insecutor Inscitiae Menstruus 2: 23, 25. ♀ ♂.

crassisculptus Cushman. Mich. (East Lansing).
Urosigalphus crassisculptus Cushman, 1922. U. S. Natl. Mus. Proc. 60 (21): 23. ♂.

femoratus Crawford. N. J. to Ga., west to S. Dak. and Tex. Host: *Tyloderma foveolatum* Say.
Urosigalphus femoratus Crawford, 1914. Insecutor Inscitiae Menstruus 2: 23, 26. ♀ ♂.

hubbardi Crawford. Ariz. (Chiricahua Mts.).
Urosigalphus hubbardi Crawford, 1914. Insecutor Inscitiae Menstruus 2: 22, 23. ♂.

mohawkorum Viereck. Conn. (New Haven).
Urosigalphus mohawkorum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 234. ♀.

neomexicanus Crawford. N. Mex., Tex.
Urosigalphus neomexicanus Crawford, 1914. Insecutor Inscitiae Menstruus 2: 23, 26. ♀ ♂.

nigripes Crawford. Ariz. (Ft. Grant).
Urosigalphus nigripes Crawford, 1914. Insecutor Inscitiae Menstruus 2: 23, 24. ♀.

otidocephali Cushman. Pa. (Harrisburg). Host: *Otidocephalus* in sycamore.
Urosigalphus otidocephali Cushman, 1922. U. S. Natl. Mus. Proc. 60 (21): 25. ♂.

pini Cushman. Calif.
Urosigalphus pini Cushman, 1922. U. S. Natl. Mus. Proc. 60 (21): 26. ♂.

punctifrons Crawford. N. Mex. (Las Vegas Hot Springs).
Urosigalphus punctifrons Crawford, 1914. Insecutor Inscitiae Menstruus 2: 23, 24. ♂.

robustus Ashmead. Mass., N. J., Va.
Urosigalphus robustus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 638. ♀.

wampanoagorum Viereck. Conn. (New Haven).
Urosigalphus wampanoagorum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 234. ♀.

Genus TRIASPIS Haliday

Triaspis Haliday, 1835. Ent. Mag. 3: 123, 124. (Proposed as subgenus of *Helcon*).
Type: ***Sigalphus caudatus*** Nees. Desig. by Viereck, 1912.
Aliolus Say, 1836. Boston Jour. Nat. Hist. 1: 259.
Type: ***Bracon trilobatus*** Say, Desig. by Viereck. 1914.

Parasitic on larvae of Coleoptera.

canadensis (Provancher), n. comb. Canada.
Sigalphus canadensis Provancher, 1881. Nat. Canad. 12: 197. ♀.

collaris (Brues), n. comb. Tex. (Brownsville).
Calyptus collaris Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 159. ♀.

curculionis (Fitch). Ont. to Ga., west to Nebr. and Tex. Hosts: *Conotrachelus nenuphar* (Hbst.); *Cylindrocopturus adspersus* (Lec.); *Anthonomus grandis* Boh.; *A. scutellaris* Lec.; *Magdalis* sp.
Sigalphus curculionis Fitch, 1859. Country Gentleman 14: 221. ♀.
Biology: Riley, 1871. Ins. Mo. Ann. Rpt. 3: 24–27.

curculionis var. **rufus** (Riley). N. Y. to Fla., west to Iowa and Tex. Host: *Anthonomus grandis* Boh.
Sigalphus curculionis var. *rufus* Riley, 1871. Ins. Mo. Ann. Rpt. 3: 27. ♀.

fiskei Rohwer. Que., Pa., N. C.
Triaspis fiskei Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 535. ♀.

pissodis Viereck. Mont., Wyo., Oreg., Calif. Hosts: *Pissodes* sp.; *Cylindrocopturus longulus* (Lec.).
Triaspis pissodis Viereck, 1912. U. S. Natl. Mus. Proc. 42: 628. ♀ ♂.

sayi Muesebeck and Walkley, n. name. Ind., D. C.
Bracon (Aliolus) thoracicus Say, 1836. Boston Jour. Nat. Hist. 1: 260 ♀. Preocc. by Nees, 1812.

tibiator (Cresson), n. comb. N. J., Tenn.
Calyptus tibiator Cresson, 1872. Canad. Ent. 4: 229. ♂.

tomoxiae (Rohwer), n. comb. Va., D. C., Mich. Host: *Tomoxia lineella* Lec.
Allodorus tomoxiae Rohwer, 1915. Ent. Soc. Wash. Proc. 17: 55. ♀ ♂.

trilobatus (Say). Ind., W. Va.

Bracon (Aliolus) trilobatus Say, 1836. Boston Jour. Nat. Hist. 1: 259. ♂.

virginiensis (Ashmead), n. comb. Va., N. J., D. C., Ohio. Host: *Rhynchaenus pallicornis* (Say).
Centistes virginiensis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 655. ♀.

Subfamily AGATHIDINAE

So far as is known all species of this subfamily are internal parasites of lepidopterous larvae.

Revision: Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 1–73.

Genus CREMNOPS Foerster

Cremnops Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 246.
Type: ***Agathis deflagrator*** Nees. Monob.
Bracon Auct. not Fabricius. See Op. 162 of the Internatl. Comn. on Zool. Nomencl., 1945.
Revision: Morrison, 1917. U. S. Natl. Mus. Proc. 52: 305–343.

ainos (Shenefelt), n. comb. Wash.
Bracon ainos Shenefelt, 1937. Canad. Ent. 69: 205. ♀.

ashmeadi (Morrison), n. comb. Ill., Ky., Minn., Iowa, Kans., S. Dak.
Bracon ashmeadi Morrison, 1917. U. S. Natl. Mus. Proc. 52: 317, 329. ♀ ♂.

californicus (Morrison), n. comb. Calif.
Bracon californicus Morrison, 1917. U. S. Natl. Mus. Proc. 52: 317, 331. ♀.

comstocki (Morrison), n. comb. Maine to Ga., west to Mo. and Tex.; S. Dak.
Bracon comstocki Morrison, 1917. U. S. Natl. Mus. Proc. 52: 317, 323. ♀ ♂.

crassifemur (Muesebeck), n. comb. Ariz., Tex.
Bracon crassifemur Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 9. ♂.

haematodes (Brullé). Pa. to Ga., west to Colo. and Tex.; Oreg. Host: *Loxostege similalis* (Guen.).
Agathis haematodes Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 495. ♂.
Agathis meabilis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 183. ♂ ♀.

kelloggii (Morrison), n. comb. Nev.
Bracon kelloggii Morrison, 1917. U. S. Natl. Mus. Proc. 52: 317, 327. ♀ ♂.
Bracon discoidea Morrison, 1917. U. S. Natl. Mus. Proc. 52: 329.

liberator (Brullé), n. comb. "Car."
Agathis liberator Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 502. ♀.

melanoptera Ashmead. Calif.
Cremnops melanoptera Ashmead, 1894. Calif. Acad. Sci. Proc. (ser. 2) 4: 125. ♂.

montrealensis (Morrison), n. comb. Que. to Va., west to Mich. and Ill. Host: *Evergestis straminalis* (Hbn.).
Bracon montrealensis Morrison, 1917. U. S. Natl. Mus. Proc. 52: 317, 326. ♀ ♂.

nigrosternum (Morrison), n. comb. Pa., Va., N. C., La., Iowa, Mo., S. Dak.
Bracon nigrosternum Morrison, 1917. U. S. Natl. Mus. Proc. 52: 318, 322. ♀.

slossonae (Morrison), n. comb. Fla.
Bracon slossonae Morrison, 1917. U. S. Natl. Mus. Proc. 52: 317, 318. ♀.

szepligetii (Morrison), n. comb. Va., Ga., Fla., Iowa, S. Dak., Tex.
Bracon szepligetii Morrison, 1917. U. S. Natl. Mus. Proc. 52: 318, 334. ♀ ♂.

virginiensis (Morrison), n. comb. Conn. to N. C., west to Iowa and Miss.; S. Dak. Kans.
Bracon virginiensis Morrison, 1917. U. S. Natl. Mus. Proc. 52: 318, 341. ♀ ♂

vulgaris (Cresson). Pa. to La. west to Oreg. and N. Mex. Hosts: *Loxostege sticticalis* (L.); *L. commixtalis* (Wlkr.).
Agathis vulgaris Cresson, 1865. Ent. Soc. Phila Proc. 4: 295. ♀.
Agathis media Cresson, 1865. Ent. Soc. Phila. Proc. 4: 295. ♂.
Agathis exoratus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 182. ♂.
Biology: Simmonds, 1947. Bul. Ent. Res. 38: 145–155.

washingtonensis (Shenefelt), n. comb. Wash.
Bracon washingtonensis Shenefelt, 1937. Canad. Ent. 69: 206. ♀ ♂.

Genus EARINUS Wesmael

Earinus Wesmael, 1837. Nouv. Mem. Acad. Sci. Bruxelles 10: 8.
Type: *Microdus nitidulus* Nees. Present desig.
Diatmetus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 246.
Type: *Bassus gloriatorius* Panzer. Monob. and orig. desig.

limitaris (Say). N. H. to Va., west to Oreg., Calif. ,Canada.
Bassus limitaris Say, 1835. Boston Jour. Nat. Hist. 1: 250

zeirapherae Walley. N. S. (Grand River). Host: *Zeiraphera ratzeburgiana* (Ratz.).
Earinus zeirapherae Walley, 1935. Canad. Ent. 67: 55. ♀ ♂.

Genus AENIGMOSTOMUS Ashmead

Aenigmostomus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 128.
Type: *Microdus longipalpus* Cresson. Monob. and orig. desig.

longipalpus (Cresson). Mass., Ga., Ind., Ill., S. Dak., Nebr., Colo., Utah.
Microdus ? *longipalpus* Cresson, 1865. Ent. Soc. Phila. Proc. 4: 299. ♀.

Genus ZELOMORPHA Ashmead

Neophylax Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 119. Preocc.
Type: *Neophylax snyderi* Ashmead. Monob. and orig. desig.
Zelomorpha Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 129.
Type: *Zelomorpha arizonensis* Ashmead. Monob. and orig. desig.
Xanthomicrodus Cameron, 1904. Rec. Albany Mus. 1: 157. N. syn.
Type: *Xanthomicrodus iridipennis* Cameron. Monob.
Lisitheria Cameron, 1904. Entomologist 37: 306. N. syn.
Type: *Lisitheria nigricornis* Cameron. Monob.
Spilomicrodus Cameron, 1911. Timehri 1, 3rd. ser. (3): 323. N. syn.
Type: *Spilomicrodus nigriceps* Cameron. Monob.
Caenophylax Schulz, 1911. Zool. Ann., p. 88. N. name for *Neophlyax* Ashmead.
Type: *Neophylax snyderi* Ashmead. Autob.
Zelomorphidea Viereck, 1912. U. S. Natl. Mus. Proc. 42: 630.
Type: *Zelomorpha (Zelomorphidea)melanota* Viereck. Monob. and orig. desig.

arizonensis Ashmead. Ariz., Tex.
Zelomorpha arizonensis Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 129.

Genus AGATHIRSIA Westwood

Agathirsia Westwood, 1882. Tijdschr. v. Ent. 25: 20.
Type: *Agathirsia rufula* Westwood. Desig. by Viereck, 1914.
Agathona Westwood, 1882. Tijdschr. v. Ent. 25: 22.
Type: *Agathona sericans* Westwood. Monob.
Paragathis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 638.
Type: *Microdus thoracicus* Cresson. Monob.

cressoni Muesebeck and Walkley, n. name. Tex.
Microdus thoracicus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 181. ♀ ♂. Preocc. by Nees, 1834.

nigricauda (Viereck). Colo., N. Mex., Tex.
Crassomicrodus nigricaudus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 288. ♂.

testacea Muesebeck. Tex., N. Mex., Ariz., Nev.
Agathirsia testacea Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 13. ♀.

Genus CRASSOMICRODUS Ashmead

Crassomicrodus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 128.
Type: *Microdus fulvescens* Cresson. Monob. and orig. desig.
Epimicrodus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 129.
Type: *Microdus* (*diversus* Ashmead)=*divisus* Cresson. Monob. and orig. desig.

apicipennis Muesebeck. Mont., Tex., Oreg.
Crassomicrodus apicipennis Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 18. ♀ ♂.

divisus (Cresson). Mass. to La., west to Minn., Colo. and Tex.
Microdus divisus Cresson, 1873. Canad. Ent. 5: 52. ♂.
Orgilis rileyi Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 640. ♀.
Epimicrodus diversus (!) Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 129.

fulvescens (Cresson). Kans., Colo., Tex., N. Mex., Ariz., Oreg., Idaho.
Microdus fulvescens Cresson, 1865. Ent. Soc. Phila. Proc. 4: 297. ♀.

medius (Cresson). Iowa, Kans., Colo., N. Mex., Idaho, Wash.
Microdus medius Cresson, 1865. Ent. Soc. Phila Proc. 4: 298. ♂.

nigriceps (Cresson). Tex.
Microdus nigriceps Cresson, 1872. Amer. Ent. Soc. Trans. 4: 182. ♀.

nigrithorax Muesebeck. Colo., Nev.
Crassomicrodus nigrithorax Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 17. ♀ ♂.

pallens (Cresson). Mass. to Ga., west to Ill. and Tex.
Microdus pallens Cresson, 1873. Canad. Ent. 5: 53. ♂.

Genus AGATHIS Latreille

Agathis Latreille, 1804. Nouv. Dict. Hist. Nat., v. 24, p. 173. No species.
Type: *Agathis malvacearum* Latreille. Included by Latreille, 1805.
Bassus Fabricius ,1804. Systema Piezatorum, p. 93.
Type: *Ichneumon calculator* Fabricius. Desig. by Curtis, 1825.
Microdus Nees, 1814 (1812). Mag. Gesell. Naturf. Freunde Berlin. 6: 184.
Type: *Ichneumon calculator* Fabricius. Desig. by Westwood, 1839.
Diplozon? Haliday, 1833. Ent. Mag. 1: 263.
Type: *Ichneumon calculator* Fabricius. Monob.
Therophilus Wesmael, 1837. Nouv. Mem. Acad. Sci. Bruxelles 10: 15
Type: *Microdus* (*Therophilus*) *conspicuus* Wesmael. Desig. by Viereck, 1914.
Eumicrodus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 247. Unnecessarily proposed as a new name for *Microdus* Nees.
Type: *Ichneumon calculator* Fabricius. Autob.
Cenostomus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 246. N. syn.
Type: *Cenostomus lugubris* Foerster. Monob. and orig. desig.
Agathiella Szépligeti, 1902. Termés. Füzetek 25: 73. N. syn.
Type: *Agathiella pedunculata* Szépligeti. Monob.
Metriosoma Szépligeti, 1902. Termés. Füzetek 25: 74. N. syn.
Type: *Metriosoma munda* Szépligeti. Monob.
Neomicrodus Szépligeti, 1908. Mus. Nat. Hungarici Ann. 6: 421. N. syn.
Type: *Neomicrodus boliviensis* Szépligeti. Monob.
Lissagathis Cameron, 1911. Nova Guinea 9 (Zool. 2) Hym., p. 245. N. syn.
Type: *Lissagathis bicarinata* Cameron. Monob.
Aerophilopsis Viereck, 1913. U. S. Natl. Mus. Proc. 44: 555.
Type: *Bassus* (*Aerophilopsis*) *erythrogaster* Viereck. Monob. and orig. desig.
Ioxia Enderlein, 1920 (1918). Arch. f. Naturgesch. 84 A: 164, 199. N. syn.
Type: *Ioxia faceta* Enderlein. Monob. and orig. desig.
Alabagrus Enderlein, 1920 (1918). Arch. f. Naturgesch. 84 A: 165, 203. N. syn.

Type: ***Alabagrus citreistigma*** Enderlein. Orig. desig.

Aërophilina Enderlein, 1920 (1918). Arch .f. Naturgesch. 84 A: 164, 205. N. syn.

Type: ***Aërophilina bicristata*** Enderlein. Monob. and orig. desig.

Ditropia Enderlein, 1920 (1918). Arch. f. Naturgesch. 84 A: 165, 210. N. syn.

Type: ***Ditropia strigata*** Enderlein. Monob. and orig. desig.

Liyptia Enderlein, 1920 (1918). Arch. f. Naturgesch. 84 A: 165, 210. N.syn.

Type: ***Liyptia rufiventris*** Enderlein. Orig. desig.

Agathellina Enderlein, 1920 (1918). Arch. f. Naturgesch. 84 A: 165, 211. N. syn.

Type: ***Agathellina columbiana*** Enderlein. Monob. and orig. desig.

abdominalis (Muesebeck), n. comb. Fla., La., S. Dak.

Bassus abdominalis Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 25, 35. ♀ ♂.

aciculatus (Ashmead), n. comb. Tex.

Microdus aciculatus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 639. ♂ ♀.

acrobasidis (Cushman), n. comb. N. C., Ga., Fla., Miss., Ark., Tex., Colo. Hosts: *Acrobasis caryivorella* Rag.; *A. juglandis* (Le B.); *A. caryae* Grote; *Blastodacna curvilineella* (Chamb.).

Bassus acrobasidis Cushman, 1920. U. S. Natl. Mus. Proc. 58: 289. ♀ ♂.

agilis (Cresson), n. comb. N. H. to Fla., west to Minn. and Tex. Hosts: *Pyrausta nubilalis* (Hbn.); *P. theseusalis* (Wlkr.); *P. futilalis* (Led.); *P. ainsliei* Heinr.; *Homona fervidana* Wlkr.; *Aristotelia absconditella* (Wlkr.); *Epiblema strenuana* (Wlkr.); *Archips fervidana* (Clem.); *A. infumatana* (Zell.); *Acleris minuta* (Rob.).

Microdus agilis Cresson, 1873. Canad. Ent. 5: 52. ♀.

Agathis quaesitor Provancher, 1880. Nat. Canad. 12: 176. ♀.

Economics: Daviault, 1939. Nat. Canad. 66: 179–187.

annulipes (Cresson), n. comb. Ont. to Fla., west to S. Dak. and Kans. Hosts: *Strepsicrates smithiana* (Wlsm.); *Ancylis comptana* (Froel.); *?Coelostathma discopunctana* Clem.; *Eumarosia malachitana* (Zell.); *Acrobasis* sp.; *Laspeyresia caryana* (Fitch).

Microdus annulipes Cresson, 1873. Canad. Ent. 5: 53. ♀.

Microdus earinoides Cresson, 1873. Canad. Ent. 5: 54. ♀.

Microdus grapholithae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 639. ♀.

Microdus albocinctus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 639. ♀.

Bassus waldeni Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 228, 229. ♀.

atripes Cresson. Colo., N. Mex., Calif., Nev., Utah, Idaho, Wash., B. C.

Agathis atripes Cresson, 1865. Ent. Soc. Phila. Proc. 4: 296. ♂.

azygos (Viereck), n. comb. Kans., S. Dak., Ariz.

Lytopylus azygos Viereck, 1905. Kans. Acad. Sci. Trans. 19: 267. ♀.

Microdus agathoides Viereck, 1905. Kans. Acad. Sci. Trans. 19: 277. ♀.

bakeri (Muesebeck), n. comb. Colo., Calif., Wash.

Bassus bakeri Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 26, 42. ♀.

bicolor (Provancher), n. comb. N. B. to Va.; Ont. Hosts: *Epiblema desertana* (Zell.); *Epinotia nanana* (Treits.); *Coleophora laricella* (Hbn.); *Recurvaria piceaella* Kearf.

Microdus bicolor Provancher, 1880. Nat. Canad. 12: 179. ♀.

brevicauda (Muesebeck), n. comb. Maine, W. Va. Host: *Coleophora malivorella* Riley.

Bassus brevicauda Muesebeck, 1932. Wash. Acad. Sci. Jour. 22: 332. ♀.

brevicornis (Muesebeck), n. comb. Oreg., Calif., Nev.

Bassus brevicornis Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 29, 56. ♀ ♂.

buttricki (Viereck), n. comb. Maine to Ga., west to S. Dak., Colo., and Tex. Hosts:

Isophrictis spp.; *Homeosoma electellum* (Hulst.).
Bassus (Lytopylus) buttricki Viereck, 1917. (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 228, 229. ♀.

calcaratus (Cresson), n. comb. Que. to Fla.; Ont., Tex. Hosts: *Psilocorsis* sp.; *Acrobasis caryivorella* Rag.; *A. betulella* Hulst; *A. rubrifasciella* Pack.; *A. comptoniella* Hulst.
Microdus calcaratus Cresson, 1873. Canad. Ent. 5: 51. ♀.

californicus (Muesebeck), n. comb. Calif., Oreg., Idaho.
Bassus californicus Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 64. ♀ ♂.

cinctus (Cresson). Que. to Fla., west to S. Dak. and Kans.; Oreg. Hosts: *Argyrotaenia velutinana* (Wlkr.); *Coleophora limosipenella* Dup.; *C. cinerella* Chamb.; *Salebria* sp.; *Peronea* sp.; *Grapholitha molesta* (Busck).
Microdus cinctus Cresson, 1873. Canad. Ent. 5: 53. ♂ ♀.
Microdus pimploides Viereck, 1905. Kans. Acad. Sci. Trans. 19: 276. ♂.
Bassus winkleyi Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 227, 229. ♀.

coleophorae (Rohwer), n. comb. Conn., Pa., W. Va. Hosts: *Coleophora leucochrysella* Clem.; *C. malivorella* Riley.
Bassus coleophorae Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 230. ♀.
Bassus pyrifolii Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 226, 229. ♀.

conspicuus (Wesmael). Mass. to Va. Hosts: *Carpocapsa pomonella* (L.); *Grapholitha molesta* (Busck).
Microdus (Therophilus) conpsicuus Wesmael, 1837. Nouv. Mem. Acad. Sci. Bruxelles 10: 17. ♂ ♀.
Bassus carpocapsae Cushman, 1915. U. S. Natl. Mus. Proc. 48: 508. ♀. N. syn.

crassicornis (Muesebeck), n. comb. Fla., Iowa.
Bassus crassicornis Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 26, 43. ♀.

cupressi Muesebeck and Walkley, n. name. Calif.
Bassus parvus Muesebeck, 1932. Wash. Acad. Sci. Jour. 22: 331. ♀ ♂. Preocc. by Viereck, 1903.

difficilis (Muesebeck), n. comb. Fla., La., Ga.
Bassus difficilis Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 27, 46. ♀ ♂.

discolor (Cresson), n. comb. Mass. to D. C., west to Iowa and Tex. Hosts: *Ancylis comptana* (Froel.); *Lineodes interrupta* (Zell.).
Microdus discolor Cresson, 1873. Canad. Ent. 5: 52. ♂ ♀.
Bassus brittoni Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 227, 229. ♀.

diversus (Muesebeck), n. comb. Japan.; N. J. Host: *Grapholitha molesta* (Busck).
Bassus diversus Muesebeck, 1933. Ent. Soc. Wash. Proc. 35: 48. ♀.

erythrogaster (Viereck), n. comb. Conn. to Ga., west to Kans. Host: *Epiblema strenuana* (Wlkr.).
Bassus (Aerophilopsis) erythrogaster Viereck, 1913. U. S. Natl. Mus. Proc. 44: 555. ♂.

floridanus (Muesebeck), n. comb. Fla.
Bassus floridanus Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 24, 31. ♂.

gibbosus (Say), n. comb. U. S. and Canada. Hosts: *Keiferia glochinella* (Zell.); *Gnorimoschema operculella* (Zell.); *Mompha* sp.; *M. stellella* Busck; *Papaipema nebris* form *nitela* (Guen.); *Strobisia iridipennella* Clem.
Bassus gibbosus Say, 1836. Boston Jour. Nat. Hist. 1: 250. ♀.
Microdus pygmaeus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 182. ♀ ♂.
Agathis s[c]rutator Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 137. ♀ ♂.
Agathis dispar Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., pp. 137, 138. ♀.

Microdus meridionalis Viereck, 1903. Amer. Ent. Soc. Trans. 29: 95, 96. ♂.
Microdus wichitaensis Viereck, 1905. Kans. Acad. Sci. Trans. 19: 276. ♀.
Microdus castaneicinctus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 276. ♀.

imitatus (Cresson), n. comb. Mass.
Microdus imitatus Cresson, 1873. Canad. Ent. 5: 51. ♀.

immaculatus (Gahan). La., Tex. Host: ?*Gnorimoschema striatella* (Murtf.).
Bassus immaculatus Gahan, 1919. U. S. Natl. Mus. Proc. 55: 118. ♀.

laticeps (Muesebeck), n. comb. Mass., D. C., Tex., Ariz.
Bassus laticeps Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 28, 53. ♀.

laticinctus (Cresson). N. S., Que. Conn., N. J., N. Y., D. C., Mo., Wash. Host: *Spilonota ocellana* (D. and S.).
Microdus laticinctus Cresson, 1873. Canad. Ent. 5: 53. ♂.
Microdus ocellanae Richardson, 1913. Canad. Ent. 45: 211. ♀.

marginatifrons (Muesebeck), n. comb. Ala. (Pyziton).
Bassus marginatifrons Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 24, 30. ♀.

nigricoxus (Provancher), n. comb. Ont., N. B., N. Y., N. J., Pa., Mich.
Microdus nigricoxus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., pp. 137, 138. ♀.

nigripes Cresson. Mass. west to Wash., Oreg. and Nev. Host: *Thiodia bucephaloides* (Wlsm.).
Agathis nigripes Cresson, 1865. Ent. Soc. Phila. Proc. 4: 297. ♀.
Agathis nigriceps Provancher, 1895. Nat. Canad. 22: 96. ♀.
Agathis wyomingensis Viereck, 1905. Kans. Acad. Sci. Trans. 19: 284. ♀.

nigrotrochantericus (Viereck), n. comb. Ga., Fla., Kans.
Microdus nigrotrochantericus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 275. ♀.

ninanae (Muesebeck), n. comb. Ariz., Calif. Host: *Laspeyresia ninana* (Dyar).
Bassus ninanae Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 27, 48. ♀ ♂.

nucicola (Muesebeck), n. comb. Calif., Oreg. Wash. Host: *Melissopus latiferreanus* (Wlsm.).
Bassus nucicola Muesebeck, 1940. Wash. Ent. Soc. Proc. 42: 91, 92. ♀ ♂.

perforator Provancher. N. B. and Que. to D. C. and west to S. Dak.
Agathis perforator Provancher, 1880. Nat. Canad. 12: 176, 177. ♀.
Agathis femorator Provancher, 1880. Nat. Canad. 12: 176, 177. ♀.
Bracon (Agathis) sassacus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 230, 231. ♂ ♀.
Bracon (Agathis) branfordensis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 230, 231. ♂.

petiolatus (Muesebeck), n. comb. N. Mex. (Alamogordo).
Bassus petiolàtus Muesebeck, 1932. Wash. Acad. Sci. Jour. 22: 330. ♀ ♂.

pini (Muesebeck), n. comb. Maine to Va.; Ohio. Hosts: *Petrova comstockiana* (Fern.); *Rhyacionia frustrana* (Comst.); *Evetria* sp.
Bassus pini Muesebeck, 1940. Wash. Ent. Soc. Proc. 42: 92. ♀.

pumilus (Ratzeburg), n. comb. Maine to N. Y., Ont. Host: *Coleophora laricella* (Hbn.).
Microdus pumilus Ratzeburg, 1844. Ichn. d. Forstins., v. 1, p. 57. ♂ ♀.

quebecensis (Provancher), n. comb. Que.
Microdus Quebecensis Provancher, 1880. Nat. Canad. 12: 178. ♀.

reticulatus (Muesebeck), n. comb. Ill., Kans.
Bassus reticulatus Muesebeck, 1932. Wash. Acad. Sci. Jour. 22: 332. ♀ ♂.

rubripes Cresson. Ont. to Fla., west to Wyo.; Calif. Host: *Grapholitha molesta* (Busck).
Agathis rubripes Cresson, 1872. Amer. Ent. Soc. Trans. 4: 183. ♀.

rufofemoratus (Muesebeck), n. comb. Kans., Iowa, Fla.
Bassus rufofemoratus Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 25, 36. ♀.

rugareolatus (Viereck), n. comb. Conn. (New Haven).
Bassus rugareolatus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 228, 229. ♂.

sanctus (Say), n. comb. Mass. to Ga., west to Ill., Kans. and Tex. Host: *Pyrausta pertextalis* (Led.).
Bassus sanctus Say, 1836. Boston Jour. Nat. Hist. 1: 249.

semi-rubra Brullé. Pa.
Agathis semi-rubra Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 494. ♂.

simillimus (Cresson), n. comb. Ont. to Ga., west to S. Dak, and Kans. Hosts: *Epiblema scudderiana* (Clem).; *E. carolinana* (Wlsm.); *E. strenuana* (Wlkr.); *E. obfuscana* (Dyar).
Microdus simillimus Cresson, 1873. Canad. Ent. 5: 51.

spiracularis (Muesebeck), n. comb. Mass. to Ga. and west to Ill. and Tex.; Nev., Wash.
Bassus spiracularis Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 25, 38. ♀.

stigmaterus (Cresson), n. comb. Fla.; West Indies, So. Amer. Host: *Diatraea saccharalis* (F.).
Microdus stigmaterus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 65. ♀ ♂.
Microdus diatraeae Turner, 1918. Bul. Ent. Res. 9: 82. ♀.
Microdus crossi Brèthes, 1927. Rev. Indus. Agr. Tucuman 17: 163. ♀.
Alabagrus citreistigma Enderlein, 1920 (1918). Arch. f. Naturgesch. 84: 203. ♀. N. syn.
Biology: Wilson, 1941. Fla. Ent. 24: 55–57.

tenuiceps (Muesebeck), n. comb. Ariz.
Bassus tenuiceps Muesebeck, 1927. U. S. Natl. Mus. Proc. 69 (16): 27, 47. ♀ ♂.

terminatus (Cresson), n. comb. Okla., Tex., S. Dak., Colo. Hosts: *Isophrictis* sp.; *Pyroderces rileyi* (Wlsm.).
Microdus terminatus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 298. ♂.
Orgilus terminalis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 640. ♂.
Microdus terminator Dalla Torre, 1898. Cat. Hym., v. 4, p. 136. Emend.

texanus (Cresson), n. comb. U. S. west to Kans. and Tex.; B. C. Hosts: *Pantographa limata* G. and R.; ?*Pilocrosis tripunctata* (F.); *P. ramentalis* Led.; *Pachyzancla periusalis* (Wlkr.); *Asciodes anormalis* (Guen.); *Syngamia haemorrhoidalis* (Guen.).
Microdus texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 181. ♂.

tibiator Provancher. Que. and N. B. to Va., west to Wash. and Calif.
Agathis tibiator Provancher, 1880. Nat. Canad. 12: 177. ♀.
Agathis parvus Viereck, 1903. Amer. Ent. Soc. Trans. 29: 96. ♀ ♂.
Bracon (Agathis) solidaginis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 230, 231. ♂.

usitatus (Gahan), n. comb. Mass. (East Wareham). Host: *Mineola vaccinii* (Riley).
Bassus usitatus Gahan, 1919. U. S. Natl. Mus. Proc. 55: 119. ♀ ♂.

verticalis(Cresson), n. comb. Tex.
Microdus verticalis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 182. ♀.

Subfamily NEONEURINAE

A small group of ant parasites about which little is known. Most of the species are rarely collected.

Revision: Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 3–6.

Genus ELASMOSOMA Ruthe

Elasmosoma Ruthe, 1858. Berlin. Ent. Ztschr. 2: 7.
Type: *Elasmosoma berolinense* Ruthe. Monob.
Paramirax Ashmead, 1895. Ent. Soc. Wash. Proc. 3: 281.
Type: *Paramirax schwarzi* Ashmead. Monob.

bakeri Ashmead. Va., Iowa, Colo., N. Mex., Idaho, Calif.
Elasmosoma bakeri Ashmead, 1895. Ent. Soc. Wash. Proc. 3: 282. ♂.

pergandei Ashmead. Ont. to D. C.; Kans., Wash. Hosts: *Camponotus castaneus* (Latr.); *Formica rufa integra* Nyl.; *F. fusca* var. *subsericea* Say.
Elasmosoma pergandei Ashmead, 1895. Ent. Soc. Wash. Proc. 3: 282, 283. ♀.

petulans Muesebeck. Ohio. Host: *Formica sanguinea rubicunda* Emery.
Elasmosoma petulans Muesebeck, 1941. Brooklyn Ent. Soc. Bul. 36: 200. ♀.

schwarzi (Ashmead). Pa., D. C., Md., Ga., Ind. Hosts: *Formica pallide-fulva schaufussi* Mayr; *Polyergus lucidus* Mayr.
Paramirax schwarzi Ashmead, 1895. Ent. Soc. Wash. Proc. 3: 282, 283. ♀.

vigilans Cockerell. Colo. Host: ?*Formica subpolita* Myar.
Elasmosoma vigilans Cockerell, 1909. Ent. Soc. Wash. Proc. 10: 168. ♀.

Subfamily MICROGASTERINAE

All species of this large subfamily seem to be internal parasites of lepidopterous larvae.

Revision: Muesebeck, 1922. U. S. Natl. Mus. 61 (15): 6–76.

Genus DIRRHOPE Foerster

Dirrhope Foerster, 1851. Naturh. Ver. Rheinlande Verh. 8: 79.
Type: *Dirrhope rufa* Foerster. Monob.
Dirrhopa Schulz, 1906. Spolia Hym., p. 138. Emend.
Taxonomy: Muesebeck, 1936 (1935). Ent. Soc. Wash. Proc. 37: 173–174.

americana Muesebeck. Va. Host: *Ectoedemia phleophaga* Busck.
Dirrhope americana Muesebeck, 1936 (1935). Ent. Soc. Wash. Proc. 37: 174. ♀ ♂.

Genus PAROLIGONEURUS Muesebeck

Paroligoneurus Muesebeck, 1931. U. S. Natl. Mus. Proc. 79 (16): 7.
Type: *Paroligoneurus johnsoni* Muesebeck. Monob. and orig. desig.

johnsoni Muesebeck. Mass., N. J., Fla. Host: *Nepticula* sp.
Paroligoneurus johnsoni Muesebeck, 1931. U. S. Natl. Mus. Proc. 79 (16): 7, 8. ♀.

Genus MIRAX Haliday

Mirax Haliday, 1833. Ent. Mag. 1: 263.
Type: *Mirax rufilabris* Haliday. Monob.
Centistidea Rohwer, 1914. Psyche 21: 81.
Type: *Centistidea ectoedemiae* Rohwer. Monob. and orig. desig.

aspidiscae Ashmead. Md., D. C. Hosts: *Coptodisca splendoriferella* (Clem.); *Grapholitha prunivora* (Walsh).
Mirax aspidiscae Ashmead, 1893. Psyche 6: 377, 378. ♂ ♀.
Mirax grapholithae Ashmead, 1893. Psyche 6: 377, 378. ♂.

coptodiscae Walley. B. C., Wash. Host: *Coptodisca arbutiella* Busck.
Mirax coptodiscae Walley, 1941. Canad. Ent. 73: 84. ♀ ♂.

ectoedemiae (Rohwer). Va. (Vietch). Host: *Ectoedemia castaneae* Busck.
Centistidea ectoedemiae Rohwer, 1914. Psyche 21: 81. ♀ ♂.

lithocolletidis Ashmead. N. J., D. C., Fla. Host: *Cameraria aceriella* (Clem)..
Mirax lithocolletidis Ashmead, 1893. Psyche 6: 377, 378. ♂ ♀.

minuta Ashmead. Fla., Ohio.
Mirax minuta Ashmead, 1893. Psyche 6: 377, 378. ♀.

pallida Ashmead. Fla.
Mirax pallida Ashmead, 1893. Psyche 6: 377, 379. ♀.

texana Muesebeck. Tex.
Mirax texana Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 10, 11. ♂.

Genus ADELIUS Haliday

Adelius Haliday, 1833. Ent. Mag. 1: 262.
Type: ***Adelius subfasciatus*** Haliday. Monob.
Acaelius Haliday, 1834. Ent. Mag. 2: 231. Emend.
Acoelius Haliday, 1834. Ent. Mag. 2: 539. Emend.
Pleiomerus Wesmael, 1837. Nouv. Mem. Acad. Sci. Bruxelles 10: 67.
Type: ***Adelius subfasciatus*** Haliday. Monob.
Anomopterus Rohwer, 1914. Psyche 21 (2): 80.
Type: ***Anomopterus fasciipennis*** Rohwer, Monob.
Myriola Shestakov, 1932. Zool. Anz. 99: 259. N. syn.
Type: ***Myriola gussakovskii*** Shestakov. Monob.

coloradensis Muesebeck. Colo., Ill., La.
***Adelius* coloradensis** Muesebeck, 1921. U. S. Natl. Mus. Proc. 61 (15): 13, 14. ♂.

fasciipennis (Rohwer). Va. (Falls Church). Host: *Ectoedemia phleophaga* Busck.
Anomopterus fasciipennis Rohwer, 1914. Psyche 21: 80. ♀ ♂.

nigripectus Muesebeck. Ind. (Lafayette). Host: Poplar leaf-miner.
Adelius nigripectus Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 13. ♂.

Genus APANTELES Foerster

Apanteles Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 245.
Type: ***Microgaster obscura*** Nees. Monob. and orig. desig.
Cotesia Cameron, 1891. Manchester Lit. and Phil. Soc. Mem. and Proc. 4 (ser. 4): 185.
Type: ***Cotesia flavipes*** Cameron. Monob.
Pseudapanteles Ashmead, 1898 (1897). Ent. Soc. Wash. Proc. 4: 166.
Type: ***Pseudapanteles annulicornis*** Ashmead. Desig. by Viereck, 1911.
Protapanteles Ashmead, 1898 (1897). Ent. Soc. Wash. Proc. 4: 166.
Type: ***Protapanteles ephyrae*** Ashmead. Desig. by Viereck, 1914.
Urogaster Ashmead, 1898 (1897). Ent. Soc. Wash. Proc. 4: 166.
Type: ***Urogaster vulgaris*** Ashmead. Desig. by Viereck, 1914.
Parapanteles Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 131.
Type: ***Apanteles aletiae*** Riley. Monob. and orig. desig.
Glyptapanteles Ashmead, 1904. U. S. Natl. Mus. Proc. 28: 147.
Type: ***Glyptapanteles manilae*** Ashmead. Monob.
Cryptapanteles Viereck, 1910. Ent. Soc. Wash. Proc. 11: 209.
Type: ***C[ryptapanteles] rileyanus*** Viereck. Monob. and orig. desig.
Xestapanteles Cameron, 1910 (1909). Ztschr. f. Naturw. 81: 447.
Type: ***Xestapanteles latiannulatus*** Cameron. Monob.
Dolichogenidea Viereck, 1911. U. S. Natl. Mus. Proc. 40: 173. Proposed as subgenus of *Apanteles* Forester.
Type: ***Apanteles (Dolichogenidea) banksi*** Viereck. Monob. and orig. desig.
Stenopleura Viereck, 1911. U. S. Natl. Mus. Proc. 40: 187.
Type: ***Apanteles sesamiae*** Cameron. Monob. and orig. desig.
Allapanteles Brèthes, 1915. Buenos Aires Mus. Nac. Hist. Nat. An. 27: 404.
Type: ***Allapanteles cecidiptae*** Brèthes. Monob.
Revision: Muesebeck, 1921 (1920). U. S. Natl. Mus. Proc. 58: 483–576.

acaudus (Provancher). Ont., Mass., Conn., R. I., Va. Host: *Calocalpe undulata* (L.).
Microgaster acaudus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., pp. 139, 142. ♂ ♀.
Apanteles hydriae Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 500, 561. ♀ ♂. N. syn.

acrobasidis Muesebeck. Md., Fla., Miss. Hosts: ?*Acrobasis caryae* Grote; *Gretchena bolliana* (Sling.).
Apanteles acrobasidis Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 489, 509. ♀.

acronyctae Riley. N. H. to N. J. west to Iowa; Colo., Calif. Hosts: *Acronicta populi* Riley; *A. oblinita* (A. and S.); *A. ?leporina* (L.); *Merolonche lupini*

(Grote); ?*Hemerocampa leucostigma* (A. and S.)
Apanteles acronyctae Riley, 1870. Ins. Mo., Ann. Rpt. 2: 120.
Apanteles orgyiae Ashmead, 1893. Ohio Expt. Sta. Bul. 1: 159. ♀.

agricola Viereck. Conn. (West Haven).
Apanteles (Protapanteles) agricola Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 186, 192. ♀.

alaskensis (Ashmead). Alaska.
Protapanteles alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 247. ♂ ♀.

aletiae Riley. Fla., Ala. Host: *Alabama argillacea* (Hbn.).
Apanteles aletiae Riley, 1881. Acad. Sci. St. Louis, Trans. 4: 296, 298, 306. ♂ ♀.

algonquinorum Viereck. Conn. (Thompson).
Apanteles (Protapanteles) algonquinorum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 188, 196.

alticola (Ashmead). Alaska, Oreg., Utah, Maine. Hosts: *Chorizagrotis* sp.; *Diarsia rosaria* (Grote).
Protapanteles alticola Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 248. ♂.

alypiae Muesebeck. Conn. (Wallingford). Host: *Alypia octomaculata* (F.).
Apanteles alypiae Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 18. ♀ ♂.

americanus (Lepeletier). Fla., Tex., Okla., Ariz.; Mexico, West Indies, Cent. Amer., So. Amer. Hosts: *Erinnyis ello* (L.); *Protoparce* sp.
Microgaster americanus Lepeletier, 1825. Encycl. Méth. Ins. 10: 42. ♂ ♀.
Microgaster flaviventris Cresson, 1865. Ent. Soc. Phila. Proc. 4: 66. ♀. N. syn.
Apanteles mexicanus Ashmead, 1895. Calif. Acad. Sci. Proc. 5: 545. ♂ ♀.

ammalonis Muesebeck. N. J. (Somerville). Host: *Cycnia tenera* Hbn.
Apanteles ammalonis Muesebeck, 1926. U. S. Natl. Mus. Proc. 69 (7): 8. ♀ ♂.

anisotae Muesebeck. Va., Md. Host: *Anisota senatoria* (A. and S.).
Apanteles anisotae Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 499, 555. ♀.

argynnidis Riley. Mass., N. Y., N. J., D. C., W. Va., Ky., Ill. Hosts: *Argynnis* sp.; *Speyeria cybele* (F).; *Proteides clarus* (Cram.).
Apanteles argynnidis Riley, 1889. *In* Scudder, Butterflies East. U. S., pp. 1898, 1904. ♀.

aristoteliae Viereck. Vt. to Pa., west to Oreg. and Calif.; La. Hosts: *Aristotelia fungivorella* (Clem.); *Aroga trialbamaculella* (Chamb.); *Filatima persicaeella* (Murtf.); *Gelechia* sp.; *Argyrotaenia citrana* (Fern.); *Dioryctria reniculella* (Grote); *Ancylis comptana fragariae* (W. and R.); *Grapholitha molesta* (Busck).
Apanteles (Apanteles) aristoteliae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 613. ♂.
Apanteles (Apanteles) gelechiae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 615. ♀.
Biology: Basinger, 1938. Hilgardia 11: 661–663.

atalantae (Packard). Ont., Mass., Pa., N. J., W. Va., Mich., Colo. Hosts: *Vanessa atalanta* (L.); *Nymphalis milberti* (Latr.).
Microgaster atalantae Packard, 1881 (1880). Boston Soc. Nat. Hist. Proc. 21: 28. ♀ ♂.

autographae Muesebeck. Md., Fla., La., Mich., S. Dak., Oreg., Tex. Hosts: *Autographa* sp.; *Trichoplusia ni* (Hbn.).
Apanteles autographae Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 496, 547. ♀.

banksi Viereck. Pa., Md., D. C., Va.
Apanteles (Dolichogenidea) banksi Viereck, 1911. U. S. Natl. Mus. Proc. 40: 173. ♀.

bedelliae Viereck. Conn. to Va., west to La., Kans. and Iowa; Ariz., Calif. Hosts: *Bedellia minor* Busck; *B. somnulentella* (Zell.); *Paraleucoptera albella*

(Chamb.); *Recurvaria thujaeella* Kearf.; *Anomis erosa* Hbn.; *Cosmopteryx* sp.

Apanteles (Proptapanteles) bedelliae Viereck, 1911. U. S. Natl. Mus. Proc. 40: 174. ♀ ♂.

betheli Viereck. Colo. (Colorado Springs). Host: ?*Argyresthia* sp. on oak.

Apanteles (Apanteles) betheli Viereck, 1910. U. S. Natl. Mus. Proc. 39: 402. ♀ ♂.

bucculatricis Muesebeck. Calif. Hosts: *Bucculatrix* on *Quercus agrifolia; Bucculatrix thurberiella* (Busck).

Apanteles bucculatricis Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 487, 502. ♀ ♂.

bushnelli Muesebeck. Nebr., Calif. Hosts: *Rhyacionia frustrana bushnelli* (Busck); *R. pasadenana* (Kearf.).

Apanteles bushnelli Muesebeck, 1933. Ent. Soc. Wash. Proc. 35: 196. ♀ ♂.

cacoeciae Riley. Que. to S. C., west to S. Dak. and Colo. Hosts: *Archips semiferana* (Wlkr.); *A. argyrospila* (Wlkr.); *Tortrix* sp.; *Epinotia* sp.; ?*Acrobasis caryae* Grote; *Gnorimoschema gallaesolidaginis* (Riley); *Epiblema scudderiana* (Clem.).

Apanteles cacoeciae Riley, 1881. Acad. Sci. St. Louis, Trans. 4: 305. ♂ ♀.

Pseudapanteles gallaediploppi Viereck, 1913. U. S. Natl. Mus. Proc. 46: 366.

caffreyi Muesebeck. Ariz. (Tempe); Mexico.

Apanteles caffreyi Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 495, 540. ♀ ♂.

californicus Muesebeck. Calif., Oreg. Host: *Recurvaria milleri* Busck.

Apanteles californicus Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 489, 511. ♀ ♂.

canarsiae Ashmead. Conn. to Va., west to Iowa and Kans. Hosts: *Psorosina hammondi* (Riley); *Desmia funeralis* (Hbn.); *Ancylis comptana* (Froel.).

Apanteles canarsiae Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 127. ♀ ♂.

Apanteles (Apanteles) housatannuckorum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 189, 198.

Apanteles (Apanteles) maquinnai Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 190, 199. ♀.

carduicola (Packard). Mass. Host: *Vanessa cardui* (L.).

Microgaster carduicola Packard, 1881 (1880). Boston Soc. Nat. Hist. Proc. 21: 27. ♂ ♀.

carpatus (Say). U. S. ,Canada, cosmopolitan. Hosts: *Tinea pellionella* (L.); *Trichophaga tapetiella* (L.); *Tineola biselliella* Hum.; *T. uterella* (Wlsm.).

Microgaster carpata Say, 1836. Boston Jour. Nat. Hist. 1: 263. ♀.

Protapanteles hawaiiensis Ashmead, 1901. Faune Hawaii. 1: 362. ♀.

Apanteles igae Watanabe, 1932. Ins. Mats. 7: 97. ♀.

Biology: Fallis, 1942. Canad. Jour. Res., Sect. D, Zool. Sci. 20: 13–19.

cassianus Riley. Ill., Iowa, Colo., Tex. Hosts: *Eurema nicippe* (Cram.); *Colias philodice eurytheme* Bdvl.

Apanteles cassianus Riley, 1881. Acad. Sci. St. Louis, Trans. 4: 307. ♂ ♀.

cerurae Muesebeck. Conn., N. J. Hosts: *Cerura* sp.; *C. scitiscripta* Wlkr.

Apanteles cerurae Muesebeck, 1926. U. S. Natl. Mus. Proc. 69 (7): 15. ♀ ♂.

charadrae Muesebeck. D. C. Host: *Charadra deridens* (Guen.).

Apanteles charadrae Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 501, 567. ♀ ♂.

choreuti Viereck. N. J., Va., S. C., Fla., Iowa, Tex. Hosts: *Choreutis carduiella* Kearf., *Desmia funeralis* (Hbn.); *Hellula undalis* F.; *Dichomeris* sp.

Apanteles (Pseudapanteles) choreuti Viereck, 1912. U. S. Natl. Mus. Proc. 42: 627. ♀ ♂.

cinctiformis Viereck. Ont., N. Y., N. J., Va., Ohio, Iowa, Mich.

Apanteles (Protapanteles) cinctiformis Viereck, 1911. U. S. Natl. Mus. Proc. 40: 176. ♀.

cingiliae Muesebeck. Mass. (Bernardston). Host: *Cingilia catenaria* (Drury).

Apanteles cingiliae Muesebeck, 1931. U. S. Natl. Mus. Proc. 79 (16): 6. ♀ ♂.

clavatus (Provancher). Canada; Maine to S. C. west to Ohio and Tenn.; Calif., Oreg. Hosts: *Grapholitha molesta* (Busck); *Archips argyrospila* (Wlkr.); *Epinotia subviridis* Heinr.

Microgaster clavatus Provancher, 1881. Natural. Canad. 12: 196. ♀ ♂.

clisiocampae Ashmead. N. H., N. Y., Conn., N. J. Host: *Malacosoma americanum* (F.).

Apanteles clisiocampae Ashmead, 1903. *In* Fiske, N. H. Agr. Expt. Sta., Tech. Ser. Bul. 6: 229. ♀.

cockerelli Muesebeck. Iowa, S. Dak., Tex., N. Mex., Idaho.

Apanteles cockerelli Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 492, 524. ♀.

compressiventris Muesebeck. N. H., Baffin Isl.; Europe. Hosts: *Phragmatobia fuliginiosa* (L.): *Arctia villica* (L.).

Apanteles compressiventris Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 494, 535. ♀ ♂.

compressus Muesebeck. Mass., N. H., R. I. Host: *Hypoprepia* sp.

Apanteles compressus Muesebeck, 1919. Canad. Ent. 51: 114. ♀ ♂.

conanchetorum Viereck. Ont., Conn., Pa., S. C., Ohio, Iowa, S. Dak., Kans. Hosts: *Pholisora catullus* (F.); *Loxostege similalis* (Guén.).

Apanteles (Apanteles) conanchetorum Viereck, 1917 (1916). Conn. State Geol. and Natl. Hist. Survey Bul. 22: 191, 199. ♀.

congestiformis Viereck. Alaska (St. Paul Isl.).

Apanteles (Protapanteles) congestiformis Viereck, 1923. No. Amer. Fauna. 46: 230. ♀ ♂.

congregatus (Say). U. S., Canada; West Indies, Cent. and So. Amer. Hosts: *Protoparce quinquemaculata* (Haw.): *P. sexta* (Johan.); *Dolba hylaeus* (Drury); *Ceratomia catalpae* (Bdvl.); *Paratrea plebeja* (F.); *Ampeloeca myron* (Cram.); *A. versicollor* (Harr.); *Sphinx chersis* (Hbn.); *S. kalmiae* (A. and S.); *Pholus pandorus* (Hbn.); *P. acheman* (Drury); *Sphecodina abbottii* (Swains.).

Microgaster congregata Say, 1836. Boston Jour. Nat. Hist. 1: 262. ♂.

Microgaster utilis French, 1880. Canad. Ent. 12: 42. ♀ ♂.

Apanteles (Protapanteles) augustus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 187, 194. ♀.

Biology: Gilmore, 1938 Jour. Econ. Ent. 31: 712–715.—Worth, 1939. Ent. News. 50: 137–141.—Fulton, 1940. Ent. Soc. Amer. Ann. 33: 240.

consimilis Viereck. Que., Ont., N. Y., Va. Host: *Megaplectra* sp.

Microgaster lateralis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., pp. 139, 141. ♀. Preocc.

Apanteles (Pseudapanteles) consimilis Viereck, 1911. U. S. Natl. Mus. Proc. 40: 177. ♀.

crambi Weed. Md., Ohio, Ill., Ky., Tenn., S. Dak. Host: *Crambus trisectus* (Wlkr.); *C. mutabilis* Clem.; *C. zeellus* Fern.

Apanteles crambi Weed, 1887. Ill. State Lab. Nat. Hist. Bul. 3: 8. ♀.

crassicornis (Provancher). Que., Ont., Pa., Md., Ohio, Ind., Ill., Mich., Minn., Kans.

Microgaster crassicornis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., pp. 139, 142. ♀.

cyaniridis Riley. W. Va., Iowa. Host: *Cyaniris argiolus pseudargiolus* (Bdvl. and Lec.).

Apanteles cyaniridis Riley, 1889. *In* Scudder, Butterflies East. U. S., pp. 1898, 1903. ♀.

dakotae Muesebeck. S. Dak., Idaho.

Apanteles dakotae Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 492, 524. ♀.

delicatus Howard. Conn., N. Y., D. C. Host: *Hemerocampa leucostigma* (A. and S.).

Apanteles delicatus Howard, 1897. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 5: 24, 55. ♂.

depressariae Muesebeck. N. S., Maine. Host: *Depressaria heracliana* (L.).

Apanteles depressariae Muesebeck, 1931. U. S. Natl. Mus. Proc. 79: (16): 3. ♀ ♂.

depressus Viereck. Ind. (Lafayette).
Apanteles (Stenopleura) depressus Viereck, 1912. U. S. Natl. Mus. Proc. 43: 582. ♀ ♂.

diacrisiae Gahan. D. C., W. Va., Va., S. C., Miss., La., Mo., Kans. Hosts: *Diacrisia virginica* (F.); *Hemerocampa leucostigma* (A. and S.); *Hyphantria cunea* Drury; *Olene basiflava* Pack.
Apanteles diacrisiae Gahan, 1917. U. S. Natl. Mus. Proc. 53: 198. ♀ ♂.

diatraeae Muesebeck. Ariz., West Indies; Cent. and S. Amer. Hosts: *Diatraea grandiosella* Dyar.; *D. saccharalis* (F.).
Apanteles diatraeae Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 491, 520. ♀ ♂.
Biology: Davis, 1944. U. S. Dept. Agr. Tech. Bul. 871: 1–19.

dignus Muesebeck. Calif., Hawaii, West Indies, Mexico. Host: *Keiferia lycopersicella* (Busck); *Gnorimoschema gudmannella* (Wlsm.).
Apanteles dignus Muesebeck, 1938. Ent. Soc. Wash. Proc. 40: 203. ♀ ♂

disputabilis (Ashmead). Kans., Tex.; Virgin Isl., Brazil.
Urogaster disputabilis Ashmead, 1900. Ent. Soc. London Trans. 2: 286. ♀ ♂.

diversus Muesebeck and Walkley, n. name. Conn. (Manchester). Host: *Acronicta oblinita* A. and S.
Apanteles coxalis Muesebeck, 1926. U. S. Natl. Mus. Proc. 69 (7): 13. ♀ ♂. Preocc. by Szépligeti, 1911.

dolichocephalus Muesebeck. Va. (Falls Church).
Apanteles dolichocephalus Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 487, 503. ♀.

edwardsii Riley. Conn., Ohio, Mich. Host: *Vanessa atalanta* (L.).
Apanteles edwardsii Riley, 1889. *In* Scudder, Butterflies East. U. S., pp. 1898, 1901. ♀.

electrae Viereck. Calif., Ariz., N. Mex. Hosts: *Hemileuca electra* (Wright); *H. nevadensis* Stretch.; *H. burnsii* Wats.; *Pseudohazis hera* (Harr.); *P. eglanterina* Bdvl.; *Agapema galbina* (Clem.); *Dirphia* sp.
Apanteles (Protapanteles) electrae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 145. ♀ ♂.

empretiae Viereck. N. J., Del., Md., D. C., Va., Fla. Hosts: *Sibine stimulea* (Clem.); *Parasa chloris* (H.–S.).
Apanteles (Protapanteles) empretiae Viereck, 1913. U. S. Natl. Mus. Proc. 44: 562. ♀ ♂.
Apanteles (Apanteles) sibinidis Rohwer, 1915. U. S. Natl Mus. Proc. 49: 227. ♀ ♂.

ensiger (Say). N. H. and Ont. south to Ga. and La. and west to Iowa. Host: ?*Crambus zeellus* Fern.
Microgaster ensiger Say, 1836. Boston Jour. Nat. Hist. 1: 260. ♀ (♂ misdet.)
Microgaster femur-nigrum Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., pp. 139, 142. "♀"=♂. N. syn.
Apanteles trachynotus Viereck, 1912. U. S. Natl. Mus. Proc. 42: 616. ♂. N. syn.
Apanteles nipmuckorum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 191, 200.

epiblemae Muesebeck. Kans., Del., Ga. Hosts: *Epiblema strenuana* (Wlkr.); *Grapholitha molesta* (Busck).
Apanteles epiblemae Muesebeck, 1935. Wash. Acad. Sci. Jour. 25: 280. ♀ ♂.

epinotiae Viereck. Maine to Fla., west to Ill., Nebr. and Tex. Hosts: *Gypsonoma salicicolana* (Clem.); *Grapholitha molesta* (Busck); *Phalonia* sp.; *Acrobasis caryivorella* Rag.; *Laspeyresia caryana* (Fitch); *Oxyptilus periscelidactylus* (Fitch).
Apanteles (Apanteles) epinotiae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 614. ♂.

etiellae Viereck. Va., Iowa, Ark., Kans., Tex., Wash., N. Mex. Hosts: *Etiella schisticolor* Zell.; *Psorosina hammondi* (Riley); *Canarsia* sp.; *Elasmopalpus rubedinellus* (Zell.); *Olycella junctolineella* (Hulst).
Apanteles* (*Pseudapanteles*) *etiellae Viereck, 1911. U. S. Natl. Mus. Proc. 40: 178. ♂.
Apanteles iselyi Cushman, 1919. Ent. Soc. Wash. Proc. 21: 120. ♀ ♂.

euchaetis Ashmead. N. H., Mass., N. Y., Va., Ill. Host: *Euchaetias egle* (Drury).
Apanteles euchaetis Ashmead, 1897. Ent. Soc. Wash. Proc. 4: 159. ♂ ♀.

euphydryidis Muesebeck. Maine, N. J., N. Y., Md. Host: *Euphydryas phaeton* (Drury).
Apanteles euphydryidis Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 501, 564. ♀ ♂.

feltiae Viereck. Ohio, Ind., Iowa, S. Dak., Idaho. Host: *Aristotelia absconditella* (Wlkr.).
Apanteles* (*Protapanteles*) *feltiae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 625. ♀.

fiskei Viereck. Mass., Wis., Mont., Oreg. Host: *Olene* sp.
Apanteles* (*Protapanteles*) *fiskei Viereck, 1910. U. S. Natl. Mus. Proc. 38: 379. ♀ ♂.

flaviconchae Riley. Maine to Va., west to Minn. and Tex. Hosts: *Cirphis unipuncta* (Haw.); *Colias philodice* Godart; *Anthocaris midea* (Hbn.); *Plathypena scabra* (F.).
Apanteles limenitidis* f. *flaviconchae Riley, 1881. Acad. Sci. St. Louis, Trans. 4: 308.

flavicornis Riley. Mo., Tex. Host: *Erynnis juvenalis* (F.).
Apanteles flavicornis Riley, 1889. *In* Scudder, Butterflies East. U. S., pp. 1898, 1905. ♀ ♂.

flavovariatus Muesebeck. Mich., Oreg., S. Dak.
Apanteles flavovariatus Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 493, 528. ♀ ♂.

floridanus Muesebeck. Fla. Host: *Leucania latiuscula* (H.–S.).
Apanteles floridanus Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 494, 537. ♀ ♂.

forbesi Viereck. Mass., to Fla. west to S. Dak. and Kans.; Oreg. Hosts: *Cirphis unipuncta* (Haw.); *Lacinipolia renigera* (Steph.); *L. stricta* (Wlkr.); *Feltia* sp.
Apanteles* (*Apanteles*) *forbesi Viereck, 1910. Ent. Soc. Wash. Proc. 11: 208. ♀ ♂.

fulvipes (Haliday). Europe; Greenland.
Microgaster fulvipes Haliday, 1834. Ent. Mag. 2: 249. ♀ ♂.

fumiferanae Viereck. Que., Maine, Mass., B. C., Oreg., Colo. Hosts: *Choristoneura fumiferana* (Clem.); *Dioryctria abietella* (D. and S.).
Apanteles* (*Apanteles*) *fumiferanae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 139. ♀ ♂.
Biology: Brown, 1946. Canad. Ent. 78: 121–129.

gillettei Baker. Colo. Host: *Archips argyrospila* (Wlkr.).
Apanteles gillettei Baker, 1895. Ent. News 6: 202. ♀ ♂.

glacialis (Ashmead). Alaska.
Protapanteles glacialis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 248. ♂.

glomeratus (Linnaeus). U. S., Canada; Europe. Hosts: *Pieris rapae* (L.); *P. protodice* Bdvl. and Lec.; *P. oleracea* Harr.; *P. brassicae* (L.); *Trichoplusia ni* (Hbn.).
Ichneumon glomeratus Linnaeus, 1758. Syst. Nat., ed. 10, v. 1, p. 568.
Microgaster pieridis Packard, 1881 (1880). Boston Soc. Nat. Hist. 21: 26. ♀ ♂. Preocc.
Microgaster congregatus pieridivora Riley, 1882. Amer. Nat. 16: 679. N. name.
Microgaster reconditus Nees, 1834. Ichn. Aff. Monog., v. 1, p. 174. ♂ ♀.
Biology: Hamilton, 1935. Ent. Monthly Mag. 71: 262–270; vol. 72: 25–27.—Faure, 1926. Contrib. a l'étude de la Piéride du Chon. Univ. Lyon, pp. 41–52.

gordii Muesebeck. Maine, Conn. Hosts: *Sphinx gordius* Stoll.; *Darapsa pholus* (Cram.).
Apanteles gordii Muesebeck, 1926. U. S. Natl. Mus. Proc. 69 (7): 9. ♀.

griffini Viereck. Eastern half U. S. west to Kans. Hosts: *Agrotis gladiaria* Morr.; "cutworms"; *Chorizagrotis* sp.; *Prodenia ornithogalli* Guen.; *Feltia subgothica* (Haw.).
Apanteles (Protapanteles) griffini Viereck, 1911. U. S. Natl. Mus. Proc. 40: 177. ♀ ♂.

hadenae Muesebeck. N. J., Mich. Hosts: *Phosphila turbulenta* Hbn.; *Graptolitha* sp.
Apanteles hadenae Muesebeck, 1926. U. S. Natl. Mus. Proc. 69 (7): 14. ♀ ♂.

halisidotae Muesebeck. Maine, Mass. Host: *Halisidota maculata* (Harr.).
Apanteles halisidotae Muesebeck, 1931. U. S. Natl. Mus. Proc. 79 (16): 5. ♀ ♂.

hallii (Packard). Greenland (Polaris Bay).
Microgaster Hallii Packard, 1877. Amer. Nat. 11: 52.

harti Viereck. D. C., Tenn., Ohio, Iowa. Host: *Pyrausta penitalis* (Grote).
Apanteles harti Viereck, 1910. Ent. Soc. Wash. Proc. 11: 209. ♀ ♂.

hemileucae Riley. Mass., N. Y., Mo., Oreg. Hosts: *Hemileuca maia* (Drury); *Automeris io* (F.).
Apanteles congregatus var. *hemileucae* Riley, 1881. Acad. Sci. St. Louis, Trans. 4: 309.

hesperidivorus Viereck. Conn., Calif., Mass. Hosts: Hesperid on oak; *Erynnis* sp.; *E. tristis* (Bdvl.); *Atalopedes campestris* (Bdvl.).
Apanteles (Protapanteles) hesperidivorus Viereck, 1912. U. S. Nat. Mus. Proc. 42: 626. ♀ ♂.

homoeosomae Muesebeck. Mo., S. Dak., Wash.; Cuba. Host: *Homoeosoma electellum* Hulst.
Apanteles homoeosomae Muesebeck, 1933. Ent. Soc. Wash. Proc. 35: 193. ♀ ♂.

hyphantriae Riley. U. S.; Canada. Hosts: *Hyphantria cunea* (Drury); *Hemerocampa leucostigma* (A. and S.).
Apanteles hyphantriae Riley, 1887. U. S. Dept. Agr. Ann. Rpt. for 1886, p. 533. ♀.
Biology: Tothill, 1922. Canada Dept. Agr. Tech. Bul. (n. s.)3: 76–88.

impunctatus Muesebeck. La. (Jeanerette). Host: *Diatraea saccharalis* (F.).
Apanteles impunctatus Muesebeck, 1933. Ent. Soc. Wash. Proc. 35: 194. ♀ ♂.

insignis Muesebeck. Calif. Hosts: *Platyptilia acanthodactyla* (Hbn.); *P. pica* Wlsm.
Apanteles insignis Muesebeck, 1938. Ent. Soc. Wash. Proc. 40: 201. ♀ ♂.

junoniae Riley. ?D. C., Kans. Host: *Junonia coenia* Hbn.
Apanteles junoniae Riley, 1889. *In* Scudder, Butterflies East. U. S., pp. 1898, 1907. ♂.

koebelei Riley. Calif. Host: *Euphydryas editha* (Bdvl.).
Apanteles koebelei Riley, 1889. *In* Scudder, Butterflies East. U. S., pp. 1898, 1904. ♀ ♂.

lacteicolor Viereck. New England; Europe, Asia. Hosts: *Nygmia phaeorrhoea* (Donov.); *Porthetria dispar* (L.); *Acronicta hasta* Guen.; *Hyphantria cunea* (Drury).
Apanteles (Apanteles) lacteicolor Viereck, 1911. U. S. Natl. Mus. Proc. 40: 475. ♀ ♂.
Biology: Muesebeck, 1918. Jour. Agr. Res. 12: 191–206.

laeviceps Ashmead. U. S. and south. Canada (higher elevations of). Hosts: *Autographa* sp.; *Trichoplusia ni* (Hbn.); *Cirphis unipuncta* (Haw.); *Scotogramma* sp.; *Chorizagrotis auxiliaris* form *agrestis* (Grote); *C. auxiliaris* (Grote); *Laphygma exigua* (Hbn.); *Protoleucania albilinea* (Hbn.); *Luperina stipata* (Morr.).
Apanteles laeviceps Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 17. ♀ ♂.

laevicoxis Muesebeck. Miss.
Apanteles laevicoxis Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 488, 505. ♀.

langei Muesebeck. Calif. (Half Moon Bay). Host: *Pyrausta subsequalis* (Guen.).
Apanteles langei Muesebeck, 1938. Ent. Soc. Wash. Proc. 40: 202. ♀ ♂.

laspeyresiae Viereck. Calif., Idaho. Host: *Laspeyresia toreuta* (Grote).
Apanteles laspeyresiae Viereck, 1913. U. S. Natl. Mus. Proc. 44: 556. ♀ ♂.

leucostigma (Ashmead). Fla.; West Indies. Host: *Urbanus proteus* (L.)
Urogaster leucostigmus Ashmead, 1900. Ent. Soc. London Trans. 2: 289. ♀ ♂.

limenitidis (Riley). Mass., Conn., Ohio, Ill., Iowa, Mo. Hosts: *Basilarchia archippus* (Cram.); *Anthocaris midea* (Hbn.).
Microgaster limenitidis Riley, 1871. Ins. Mo., Ann. Rpt. 3: 158. ♀ ♂.

longicornis (Provancher). Que., N. H., Mass., N. Y., Va., Ohio, Ill., Alaska.
Microgaster longicornis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., pp. 139, 143. ♂.
Apanteles radiatus Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 162. ♂ ♀.

lunatus (Packard). Mass. to N. C., west to Wash. and Calif. Hosts: *Papilio zelicaon* Lucas; *P. bairdii oregonia* (Edw.); *P. ajax*. L.
Microgaster lunatus Packard, 1881 (1880). Boston Soc. Nat. Hist. Proc. 21: 28. ♀.

luteipennis Muesebeck. Va. Host: ?*Argynnis* sp.
Apanteles luteipennis Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 493, 527. ♀.

lyciae Muesebeck. Maine (Hampden). Host: *Biston cognatoria* (Guen.).
Apanteles lyciae Muesebeck, 1926. U. S. Natl. Mus. Proc. 69 (7): 16. ♀.

marginiventris (Cresson). Va. to Fla., west to Kans. and Tex., also Ohio and Ind.; West Indies. Hosts: *Laphygma frugiperda* (A. and S.); *L. exigua* (Hbn.); *Cirphis unipuncta* (Haw.); *Leucania latiuscula* (H.–S.); *L. multilinea* Wlkr.; *Plathypena scabra* (F.); *Heliothis armigera* (Hbn.); *Autographa* spp.; *Prodenia eridania* (Cram.); *Hymenia perspectalis* (Hbn.).
Microgaster marginiventris Cresson, 1865. Ent. Soc. Phila. Proc. 4: 67. ♂ ♀.
Apanteles grenadensis Ashmead, 1900. Ent. Soc. London Trans., pp. 277, 278. ♀ ♂.
Apanteles (Protapanteles) harnedi Viereck, 1912. U. S. Natl. Mus. Proc. 43: 580. ♀.

medicaginis Muesebeck. Calif. Host: *Colias philodice eurytheme* Bdvl.
Apanteles medicaginis Muesebeck, 1947. Pan-Pacific Ent. 23: 21. ♀ ♂.
Biology: Michelbacher and Smith, 1943. Hilgardia 15: 369–397. [Under *A. flaviconchae* Riley.]

megathymi Riley. S. C., Ariz., Calif. Hosts: *Megathymus yuccae* (Bdvl. and Lec.); *M. neumoegeni stephensi* Skin.
Apanteles megathymi Riley, 1881. Acad. Sci. St. Louis, Trans. 4: 304. ♀ ♂.

melanopus Viereck. Conn.
Apanteles (Apanteles) melanopus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 190, 198.

melanoscelus (Ratzeburg). New England; Europe. Host: *Porthetria dispar* (L.).
Microgaster melanoscelus Ratzeburg, 1844. Ichn. d. Forstins. 1: 74. ♂.
Biology: Crossman, 1922. U. S. Dept. Agr. Bul. 1028: 1–25.—Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 1–34.

miantonomoi Viereck. Conn.
Apanteles (Apanteles) miantonomoi Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 190, 198.
Apanteles (Apanteles) pequodorum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 190, 198.

militaris (Walsh). Mass. to Fla., west to Kans. and Tex.; Calif. Hosts: *Cirphis unipuncta* (Haw.); *Leucania phragmatidicola* Guen.; *L. latiuscula* H.–S.; *Laphygma frugiperda* (A. and S.); *Heliothis armigera* (Hbn.); *Chorizagrotis*

sp.; *Epiglaea apiata* (Grote); *Leucophora* sp.
Microgaster militaris Walsh, 1861. Ill. State Agr. Soc. Trans. 4: 369, pl. facing p. 361. ♀.

mimoristae Muesebeck. Fla., Tex. Hosts: *Olycella junctolineella* (Hulst); *Mimorista flavidissimalis* (Grote,; *Hymeia perspectalis* (Hbn.).
Apanteles mimoristae Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 19. ♀ ♂.

monticola Ashmead. Colo., N. Mex., Idaho.
Apanteles monticola Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 17. ♂.

murtfeldtae Ashmead. Que., Mass., Va., N. C., Mo.
Apanteles murtfeldtae Ashmead, 1897. Ent. Soc. Wash. Proc. 4: 159. ♀ ♂.

nemoriae Ashmead. N. H., Mass., Conn., D. C., Tenn. Hosts: *Haematopis grataria* (F.); *Eupithecia miserulata* Grote: *Pleuroprucha insulsaria* (Guen.); *Chlorochlamys chloroleucaria* (Guen.).
Apanteles nemoriae Ashmead, 1897. Ent. Soc. Wash. Proc. 4: 160. ♂ ♀.
Apanteles (Protapanteles) winkleyi Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 186, 192. ♀ ♂.

neomexicanus Muesebeck. S. Dak., Mont., Wyo., Colo., N. Mex., Alaska, Wash., Oreg.
Apanteles neomexicanus Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 493, 529. ♀.
Apanteles caudatus Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 16. ♀ ♂. N. syn.

nephoptericis (Packard). Ill., Fla., Colo., Nev., Oreg. Hosts: *Ephestia kuehniella* Zell.; *Vitula edmandsii* (Pack.).
Microgaster nephoptericis Packard, 1864. Proc. Essex Inst. 4: 122. ♂.
Apanteles ephestiae Baker, 1895. Ent. News 6: 201. ♀ ♂.

niger Muesebeck. N. Y., D. C., Kans., S. Dak., Idaho.
Apanteles niger Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 494, 532. ♀ ♂.

nigricornis Muesebeck. Calif. (Ventura). Host: *Ctenucha brunnea* Stretch.
Apanteles nigricornis Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 495, 538. ♀ ♂.

nigrovariatus Muesebeck. Pa., Ga.
Apanteles nigrovariatus Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 492, 523. ♀.

ninigretorum Viereck. Conn.
Apanteles (Apanteles) ninigretorum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 191, 200.

nitens Muesebeck. Oreg. Host: *Agrotis aeneipennis* Grote.
Apanteles nitens Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 499, 556. ♀ ♂.

noctuidiphagus Muesebeck. Conn. (Stonington).
Apanteles noctuidiphagus Muesebeck, 1926. U. S. Natl. Mus. Proc. 69 (7): 7. ♀ ♂.

obscuricornis Viereck. Conn.
Apanteles (Protapanteles) obscuricornis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 186, 192. ♀.

oidaematophori Muesebeck. Wis., Idaho. Host: *Oidaematophorus lacteodactylus* form *kellicottii* (Fish.).
Apanteles oidematophori (!) Muesebeck, 1929. Ent. Soc. Wash. Proc. 31: 119. ♀.

olenidis Muesebeck. B. C. (Vernon). Host: *Olene vagans* B. and McD.
Apanteles olenidis Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 18. ♀ ♂.

ornigis Weed. N. H. to Va., west to Minn. and Mo. Hosts: *Ornix geminatella* (Pack.); *Lithocolletis mariaeella* Chamb.; *L.* sp.; *L. propinquinella* Braun; *L. crataegella* Clem.; *Tischeria* sp.
Apanteles ornigis Weed, 1887. Ill. State Lab. Nat. Hist. Bul. 3: 6. ♂ ♀.

Protapanteles tortricis Ashmead, 1898 (1897). Ent. Soc. Wash. 4: 163. ♀ ♂.

Apanteles* (*Apanteles*) *braunae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 614. ♂.

Apanteles* (*Apanteles*) *lithocolletidis Viereck, 1912. U. S. Natl. Mus. Proc. 42: 615. ♂.

orobenae Forbes. D. C. to Fla., west to Ariz. and Calif.; Ill., ?Conn. Host: *Evergestis rimosalis* (Guen.).

Apanteles orobenae Forbes, 1883 (1882). Noxious Ins. Ill. Rpt. 12: 104. ♀ ♂.

paleacritae Riley. N. H. to Ga., west to Kans.; Canada. Hosts: *Nyctobia anguilineata* G. and R.; *Paleacrita vernata* (Peck); *Cosymbia pendulinaria* (Guen.); *Alsophila pometaria* (Harr.).

Apanteles paleacritae Riley, 1881. Acad. Sci. St. Louis, Tran. 4: 313. ♂ ♀.

Protapanteles ephyrae Ashmead, 1898 (1897). Ent. Soc. Wash. Proc. 4: 163. ♂.

Apanteles palaeacritae (!) Dalla Torre, 1898. Cat. Hym., v. 4, p. 179.

papaipemae Muesebeck. Mass., N. Y., Iowa, Kans. Hosts: *Papaipema maritima* Bird; *P. nebris* (Guen); *P. stenoscelis* Dyar.

Apanteles papaipemae Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 493, 526. ♀ ♂.

paralechiae Muesebeck. Maine, Mass., N. Y. Host: *Exotelia pinifoliella* (Chamb.).

***Apanteles* paralechiae** Muesebeck, 1931. U. S. Natl. Mus. Proc. 79: 2. ♀ ♂.

paranthrenidis Muesebeck. Calif. N. Y., D. C. Hosts: *Paranthrene robiniae* (Hy. Edw.); *P. asilipennis* (Bdvl.).

***Apanteles* paranthrenidis** Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 488, 506. ♀ ♂.

parastichtidis Muesebeck. Maine, Tenn., Mich. Host: *Rusina bicolorago* (Guen.): ?*Archips conflictana* (Wlkr.).

Apanteles parastichtidis Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 495, 541. ♀.

petrovae Walley. Ont. (Constance Bay). Host: *Petrova albicapitana* (Busck).

Apanteles petrovae Walley, 1937. Canad. Ent. 69: 189. ♀.

phigaliae Muesebeck. Mass. (Melrose Highlands). Host: *Phigalia titea* (Cram.).

Apanteles phigaliae Muesebeck, 1919. Canad. Ent. 51: 113. ♀ ♂.

phlyctaeniae Muesebeck. Ohio, Ill. Host: ?*Phlyctaenia tertialis* (Guen.).

Apanteles phlyctaeniae Muesebeck, 1929. Ent. Soc. Wash. Proc. 31: 118. ♀ ♂.

phobetri Rohwer. Mass., Md., Va., N. C., Ind., Ill., Ky., Kans. Hosts: *Phobetron pithecium* (A. and S.); *Halisidota tesselaria* (A. and S.); *Acronicta americana* (Harr.); *A.* sp.

Apanteles* (*Protapanteles*) *phobetri Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 228. ♀.

pholisorae Riley. Md., D. C., S. C., Ill., Mo., Kans. Host: *Pholisora catullus* (F.).

Apanteles pholisorae Riley, 1889. *In* Scudder, Butterflies East U. S., pp. 1898, 1909. ♀.

phthorimaeae Muesebeck. La. (Baton Rouge). Host: *Keiferia glochinella* (Zell.).

Apanteles phthorimaeae Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 489, 509. ♀.

plathypenae Muesebeck. Ohio, Iowa, Kans., S. Dak. Hosts: *Plathypena scabra* (F.); *Scotogramma trifolii* (Rott.).

Apanteles plathypenae Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 496, 546. ♀ ♂.

plesius Viereck. N. J.

Apanteles* (*Apanteles*) *plesius Viereck, 1912. U. S. Natl. Mus. Proc. 42: 615. ♀.

podunkorum Viereck. Conn., Va., Ohio, W. Va. Hosts: *Pyrausta futilalis* (Led.); *P. ainsliei* Heinr.

Apanteles* (*Stenopleura*) *podunkorum Viereck, 1912. U. S. Natl. Mus. Proc. 43: 583. ♀.

politus Riley. Ill., Mo. Host: *Scolecocampa liburna* (Geyer).
Apanteles politus Riley, 1881. Acad. Sci. St. Louis, Trans. 4: 307. ♂ ♀.

polychrosidis Viereck. Ont. to N. C., west to Mich. and Mo.; S. Dak., Wash., Oreg. Hosts: *Polychrosis liriodendrana* Kearf.; *P. viteana* (Clem.); *Gracilaria* sp.: *Archips rosaceana* (Harr.); *A. argyrospila* (Wlkr.); *A. cerasivorana* (Fitch); *Argyrotaenia juglandana* (Fern.); *Bucculatrix pomifoliella* Clem.; *Grapholitha molesta* (Busck).
Apanteles* (*Apanteles*) *polychrosidis Viereck, 1912. U. S. Natl. Mus. Proc. 42: 615. ♀ ♂.

praesens Muesebeck. Calif. Host: *Anacamptodes fragilaria* (Grossb.).
Apanteles praesens Muesebeck, 1947. Pan-Pacific Ent. 23 (1): 23. ♀ ♂.

pseudoglossae Muesebeck. Md. (Rockville). Host: *Epizeuxis lubricalis* Geyer.
Apanteles pseudoglossae Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 490, 512. ♀ ♂.

pterophori Muesebeck. Mass. (Melrose Highlands). Host: *Oidaematophorus homodactylus* (Wlkr.).
Apanteles pterophori Muesebeck, 1926. U. S. Natl. Mus. Proc. 69 (7): 6. ♀ ♂.

pyralidis Muesebeck. Md., Va., Tenn., Iowa, S. Dak. Hosts: *Nomophila noctuella* (D. and S.); *Pyrausta futilalis* (Led.); *Loxostege similalis* (Guen.).
Apanteles pyralidis Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 497, 551. ♀ ♂.

pyraustae Viereck. Conn., Mo. Hosts: *Pyrausta futilalis* (Led.); *Atteva aurea* (Fitch).
Apanteles* (*Protapanteles*) *pyraustae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 626. ♀ ♂.

pyrophilae Muesebeck. Mass., Conn., R. I. Host: *Amphibrya pyramidoides* Guen.
Apanteles pyrophilae Muesebeck, 1926. U. S. Natl. Mus. Proc. 69 (7): 11. ♀ ♂.

robiniae (Fitch). N. Y. Host: *Recurvaria robiniella* (Fitch).
Microgaster Robiniae Fitch, 1859 (1858). N. Y. State Agr. Soc. Trans. 18: 836. ♀ ♂.

rohweri Muesebeck. Va., Pa. Host: *Acrocercops strigifinitella* (Clem.).
Apanteles* (*Pseudapanteles*) *nigripes Rohwer, 1914 (1913). Ent. Soc. Wash. Proc. 15: 187. ♂. Preocc.
Apanteles rohweri Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 497, 550. N. name.

rufocoxalis Riley. N. S., N. Y., D. C., Va., Fla., Tenn., La., Mo. Hosts: *Cirphis unipuncta* (Haw.); *Nephelodes emmedonia* form *violans* Guen.; *Leucania latiuscula* (H.–S.).
Apanteles congregatus var. ***rufocoxalis*** Riley, 1881. Acad. Sci. St. Louis, Trans. 4: 310.

sarrothripae Weed. Maine, Mass., Va., Ohio, Ill., Mich., Mo. Hosts: *Acleris permutana* (Dup.); *Ichthyura albosigma* Hbn.; *I. inclusa* Hbn.
Apanteles sarrothripae Weed, 1887. Ill. State Lab. Nat. Hist. Bul. 3: 6. ♂ ♀.

schaffneri Muesebeck. Pa., Del. Host: Sp. of Cochlidiidae.
Apanteles schaffneri Muesebeck, 1931. U. S. Natl. Mus. Proc. 79 (16): 4. ♀.

schizurae Ashmead. Canada; N. H. to Fla., west to Wis., Mo. and Miss.; Calif. Hosts: *Schizura unicornis* (A. and S.); *S. concinna* (A. and S.).
Apanteles schizurae Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 162. ♂ ♀.

scitulus Riley. N. H., N. J., Md., Fla., Tenn., La., Mo., Nebr., Kans., Tex. Hosts: *Diacrisia virginica* (F.); *Olene basiflava* Pack.; *Acronicta oblinita* (A. and S.); *A. brumosa* Guen.
Apanteles congregatus var. ***scitulus*** Riley, 1881. Acad. Sci. St. Louis, Trans. 4: 310.
Apanteles emarginatus Riley, 1889. *In* Scudder, Butterflies East. U. S., pp. 1898, 1906. ♀ ♂. Preocc.
Apanteles parorgyiae Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 161. ♀ ♂.

Cryptapanteles rileyanus Viereck, 1910. Ent. Soc. Wash. Proc. 11: 210. N. name.

scutellaris Muesebeck. Fla., Tex., Calif.; Hawaii. Hosts: *Gnorimoschema operculella* (Zell.); *Keiferia lycopersicella* (Busck).
Apanteles scutellaris Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 494, 533. ♀ ♂.

sesiae Viereck. N. J., Va., D. C., Fla., Tex. Host: *Thamnosphecia scitula* (Harr.).
Apanteles (Pseudapanteles) sesiae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 146. ♀ ♂.

smerinthi Riley. Ont., N. H., Mass., N. J., D. C., Ind., Mo., Tex., Calif. Hosts: *Smerinthus geminatus* (Say); *S. ocellatus* (L.); *S. ophthalmicus* (Bdvl.); *Paonias excaecata* (A. and S.); *Ipimorpha pleonectusa* Grote.
Apanteles smerinthi Riley, 1881. Acad. Sci. St. Louis, Trans. 4: 311. ♂ ♀.

solenobiae Walley. Que., Pa. Host: *Solenobia walshella* Clem.
Apanteles solenobiae Walley, 1935. Canad. Ent. 67: 59. ♀.

solitarius (Ratzeburg). Europe: Newfoundland, N. S., N. B., New England; B. C., Oreg., Wash. Host: *Stilpnotia salicis* (L.).
Ichneumon (Microgaster) solitarius Ratzeburg, 1844. Ichn. d. Forstins., v. 1, p. 73. ♂ ♀.

sorghiellae Muesebeck. Mo., Tex. Host: *Celama sorghiella* (Riley).
Apanteles sorghiellae Muesebeck, 1933. Ent. Soc. Wash. Proc. 35: 195. ♀ ♂.

stagmatophorae Gahan. Md. (Williamsport). Host: *Stagmatophora gleditschiaeella* Chamb.
Apanteles stagmatophorae Gahan, 1919. U. S. Natl. Mus. Proc. 55: 120. ♀ ♂.

teleae Muesebeck. Conn., Pa., Md. Hosts: *Telea polyphemus* (Cram.); *Citheronia regalis* (F.).
Apanteles teleae Muesebeck, 1926. U. S. Natl. Mus. Proc. 69 (7): 12. ♀.

terminalis Gahan. N. Y. to Ga. west to Iowa and Tex. Hosts: *Crambus* sp.; *C. mutabilis* Clem.
Apanteles (Pseudapanteles) terminalis Gahan, 1912. Ent. Soc. Wash. Proc. 14: 2. ♂ ♀.

theclae Riley. D. C. to Ga. west to Kans. and Calif.; Idaho; Mexico. Hosts: *Thecla* sp.; *Strymon melinus* (Hbn.); *Everes comyntas* (Gdt.).
Apanteles theclae Riley, 1881. Acad. St. Louis, Trans. 4: 308. ♂ ♀.

thujae Muesebeck. Maine (Bar Harbor). Host: *Recurvaria thujaella* Kearf.
Apanteles thujae Muesebeck, 1935. Wash. Acad. Sci. Jour. 25: 281. ♀ ♂.

thurberiae Muesebeck. Ariz., Tex.; Trinidad, Colombia. Hosts: *Sacadodes pyralis* Dyar; *Thurberiphaga diffusa* (Barnes).
Apanteles thurberiae Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 489, 507. ♀ ♂.

Biology and Morphology: Murillo, 1943. Sentido de una Lucha Biologica, Bogota, pp. 22–40.

tischeriae Viereck. Conn., Del., D. C., Ohio, Kans. Host: *Tischeria malifoliella* Clem.
Apanteles (Apanteles) tischeriae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 140. ♀ ♂.

tmetocerae Muesebeck. N. S. Host: *Spilonota ocellana* (D. and S.).
Apanteles tmetocerae Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 500, 560. ♀ ♂.

unicolor (Curtis). "Arctic regions"; No. Amer.
Microgaster unicolor Curtis, 1835. Descr. Insects J. C. Ross 2nd Voyage Northwest Passage, App. p. LXII. ♂.

victoriae Muesebeck. B. C.
Apanteles victoriae Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 494, 531. ♀.

websteri Muesebeck. ?Ohio, N. C.
Apanteles websteri Muesebeck, 1921. U. S. Natl. Mus. Proc. 58: 495, 539. ♀ ♂.

xylinus (Say). East. half of U. S. and So. Canada; west to Colo. Host: *Amathes c-nigrum* (L.).
Microgaster xylina Say, 1836. Boston Jour. Nat. Hist. 1: 262. ♀.
Apanteles (Protapanteles) cushmani Viereck, 1912. U. S. Natl. Mus. Proc. 42: 144. ♂.
Apanteles (Protapanteles) oxyacanthoidis Viereck, 1912. U. S. Natl. Mus. Proc. 43: 581. ♀.
Apanteles (Protapanteles) lanificus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 188, 196.

yakutatensis Ashmead. Alaska, Wash., Oreg., Utah. Hosts: *Autographa californica* (Speyer); *Agrotis c-nigrum* L.
Apanteles yakutatensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 249. ♀.
Apanteles (Protapanteles) hyslopi Viereck, 1910. U. S. Natl. Mus. Proc. 38: 379. ♀ ♂.

Genus MICROGASTER Latreille

Microgaster Latreille, 1804. Nouv. Dict. Hist. Nat., v. 24, p. 175.
Type: ***Ichneumon deprimator*** Fabricius. Desig. by Latreille, 1810.
Liganira Walker, 1860. Ann. Mag. Nat. Hist. (3) 5: 308.
Type: ***Microgaster detractus*** Walker. Monob.
Hygroplitis Thompson, 1895. Opusc. Ent., pt. 20, pp. 2238, 2244. Proposed as subgenus of *Microgaster*.
Type: ***Microgaster russata*** Haliday. Desig. by Viereck, 1914.
Hypomicrogaster Ashmead, 1898 (1897). Ent. Soc. Wash. Proc. 4: 166. No species.
Type: ***Microgaster zonaria*** Say. Included by Ashmead, 1900.
Protomicroplitis Ashmead, 1898 (1897). Ent. Soc. Wash. Proc. 4: 167. No species.
Type: ***Microgaster mediata*** Cresson. Included by Ashmead, 1900.
Diolcogaster Ashmead, 1900. *In* Smith, Ins. of N. J., p. 594.
Type: ***Microgaster brevicauda*** Provancher. Monob.
Xanthomicrogaster Cameron, 1911. Timehri 1: 325.
Type: ***Xanthomicrogaster fortipes*** Cameron. Desig. by Viereck, 1914.
Zadiolcogaster Viereck, 1913. U. S. Natl. Mus. Proc. 46: 366. N. syn.
Type: ***Zadiolcogaster anomus*** Viereck. Monob. and orig. desig.
Lissogaster Bengtsson, 1926. Ent. Tidskr. 47: 64. Proposed as subgenus of *Microgaster*.
Type: ***Microgaster politus*** Marshall. Present desig.

auripes Provancher. Ont., N. Y., N. J., Md., Va., Ohio, Ky., Ill., Iowa, Kans. Host: *Protoleucania albilinea* (Hbn.).
Microgaster auripes Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 141. ♀.

bakeri Muesebeck. Ill., Ga., La., Iowa, Kans., Tex.
Microgaster bakeri Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 21, 29. ♀ ♂.

brevicauda Provancher. Que.
Microgaster brevicaudus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 140. ♀.

brittoni Viereck. Ont., Mass., Conn., N. Y., Ga., Wis., Minn., Iowa.
Microgaster (Microgaster) brittoni Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 201.

calliptera Say. N. Y., N. C., Ga., Ind., La., Kans., S. Dak., Colo., Tex. Hosts: *Platysenta sutor* (Guen.); *P. videns* (Guen.).
Microgaster calliptera Say, 1836. Boston Jour. Nat. Hist. 1: 264.
Microgaster maculipennis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 183. ♂ ♀.

canadensis Muesebeck. Ont., Maine, Mass., N. Y., Mich., Oreg. Hosts: *Achatodes zeae* (Harr.); *Agonopteryx posticella* (Wlsm.); ?*Argyrotoxa albicomana* (Clem.).
Microgaster canadensis Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 23, 38. ♀ ♂.

carinata Packard. ?Mass. Host: *Vanessa atalanta* (L.).
Microgaster carinata Packard, 1881 (1880). Boston Soc. Nat. Hist. Proc. 21: 25. ♂ ♀.

comptanae Viereck. Maine, N. Y., N. J., Md., Ohio, Kans., Colo., Utah. Hosts: *Ancylis comptana* (Froel.); *Argyresthia calliphanes* Meyr.
Microgaster comptanae Viereck, 1911. U. S. Natl. Mus. Proc. 39: 403. ♀.

congregatiformis Viereck. Ont., Mass., Conn., N. Y., N. J. Host: *Endothenia hebesana* (Wlkr.).
Microgaster (Microgaster) congregatiformis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 201, 202.

ecdytolophae Muesebeck. N. S. to Fla., west to Ont., Ind. and Tex.; Cent. Amer., West Indies. Hosts: *Ecdytolopha insiticiana* Zell.; *Psorosina hammondi* (Riley); *Laspeyresia caryana* (Fitch); *Grapholitha molesta* (Busck); *Pyrausta ainsliei* Heinr.; *Recurvaria piceaella* Kearf.; *Arogalea cristifasciella* (Chamb.).
Microgaster ecdytolophae Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 21, 24. ♀ ♂.

epagoges Gahan. Mass. to S. C., west to Iowa and Colo.; B. C. Hosts: *Sparganothis sulphurana* (F.); *Anacampsis fragariella* Busck; *Archips obsoletana* (Wlkr.); *A. argyrospila* (Wlkr.); *A. rosana* (L.); *Platynota flavedana* Clem.; *Pyrausta penitalis* (Grote); *Argyrotaenia velutinana* (Wlkr.); *Rhyacionia frustrana* (Comst.).
Microgaster epagoges Gahan, 1917. U. S. Natl. Mus. Proc. 53: 197. ♀ ♂.

facetosa Weed. Ont. to W. Va., west to B. C., Wash., and Colo.; Ga. Hosts: *Plathypena scabra* (F.); *Euparthenos nubilis* (Hbn.).
Microgaster facetosa Weed, 1888. Amer. Ent. Soc. Trans. 15: 296. ♂ ♀.
Microgaster (Diolcogaster) solidaginis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 201, 202.

femoralis Muesebeck. Calif., Oreg.
Microgaster femoralis Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 23, 39. ♀ ♂.

garmani (Ashmead). Md., D. C., Va., Ky., Ill., La., Tex. Host: *Ogdoconta cinereola* (Guen.).
Protomicroplitis Germani (!) Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 132.
Microgaster garmani Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 26. Emend.

gelechiae Riley. Ont. to Va., west to N. Dak. and Mo.; La. Host: *Gnorimoschema gallaesolidaginis* (Riley).
Microgaster **gelechiae** Riley, 1869. Ins. Mo. Ann. Rpt. 1: 178. ♂ ♀.

gelechiae trichotaphae Walley. Ont. Host: *Trichotaphe levisella* Fyles.
Microgaster gelechiae var. *trichotaphae* Walley, 1932. Canad. Ent. 64: 186. ♂.

harnedi Muesebeck. Mass., Va., S. C., Ind., Miss., Wash. Hosts: *Pyrausta ainsliei* Heinr.; *P. pertextalis* (Led.); *P. thestealis* (Wlkr.); *Diatraea* sp.
Microgaster harnedi Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 22, 23. ♀.

iridescens Cresson. Fla.; Cuba.
Microgaster iridescens Cresson, 1865. Ent. Soc. Phila. Proc. 4: 68. ♂ ♀.

leechi Walley. Ont., Fla., Pa., Ohio, B. C. Host: *Pyrausta pertextalis* Led.
Microgaster leechi Walley, 1935. Canad. Ent. 67: 57. ♀.

melligaster Provancher. Que., Ont., Maine, Mass., N. Y., Iowa.
Microgaster melligaster Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., pp. 139, 143. ♀.
Microgaster rubricoxus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., pp. 385, 386. ♀.

pantographae Muesebeck. Ont., Maine, Mass., N. Y., Va., Ohio, Ill. Hosts: *Pantographa limata* G. and R.; *Fascista cercerisella* (Chamb.).
Microgaster pantographae Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 23, 34. ♀.

peroneae Walley. N. S., Ohio. Hosts: *Acleris variana* (Fern.).
Microgaster peroneae Walley, 1935. Canad. Ent. 67: 56. ♀ ♂.

phthorimaeae Muesebeck. Wash., Oreg., Calif. Hosts: *Gnorimoschema operculella* (Zell.); *Aristotelia rhoisella* Busck; *Ephestiodes nigrella* Hulst; *Anacampsis fragariella* Busck.
Microgaster phthorimaeae Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 23, 40. ♀ ♂.

schizurae Muesebeck. Maine, Mass., N. J., D. C., Ohio, Kans. Hosts: *Schizura unicornis* (A. and S.); *S. concinna* (A. and S.); *S. leptinoides* (Grote); *Heterocampa manteo* (Dbldy.).
Microgaster schizurae Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 22, 30. ♀ ♂.

scopelosomae Muesebeck. Mass. (Melrose Highlands). Host: *Eupsilia devia* (Grote).
Microgaster scopelosomae Muesebeck, 1926. U. S. Natl. Mus. Proc. 69 (7): 17. ♀ ♂.

swammerdamiae Muesebeck. Conn. (East River). Host: *Swammerdamia castaneae* Busck.
Microgaster swammerdamiae Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 23, 37. ♀ ♂.

zonaria Say. Mass., N. J., Md., D. C., Ohio, Ind., Ky., Ill., La., Kans., Colo.; Canada. Hosts: *Recurvaria piceaella* Kearf.; *R. thujaella* Kearf.; *Carpocapsa pomonella* (L.).
Microgaster zonaria Say, 1836. Boston Jour. Nat. Hist. 1: 263. ♀.
Microgaster cinctus Provancher, 1881. Nat. Canad. 12: 196. ♀.
Protapanteles recurvariae Ashmead, 1903. N. Y. Ent. Soc. Jour. 11: 144. ♀.

Genus MICROPLITIS Foerster

Microplitis Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 245.
Type: ***Microgaster sordipes*** Nees. Monob. and orig. desig.
Dapsilotoma Cameron, 1906. Bombay Nat. Hist. Soc. Jour. 17: 101.
Type: ***Dapsilotoma testaceipes*** Cameron. Monob.

alaskensis Ashmead. Alaska; Canada; north. U. S. south to Kans. Hosts: *Dargida procincta* (Grote); *Plusia* sp.; *Autographa californica* (Speyer).
Microplitis alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 249. ♀.

autographae Muesebeck. N. Mex., Idaho. Host: *Autographa californica* (Speyer).
Microplitis autographae Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 45, 54. ♀ ♂.

bradleyi Muesebeck. Calif., Oreg., Alta. Host: *Amphiphyra tragopoginis* (L.).
Microplitis bradleyi Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 46, 70. ♀.

brassicae Muesebeck. Colo., Tex., Nebr., Ariz., N. Mex. Hosts: *Trichoplusia ni* (Hbn.); *Autographa* sp.
Microplitis brassicae Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 45, 60. ♀ ♂.

carteri Walley. Alta.
Microplitis carteri Walley, 1932. Canad. Ent. 64: 185. ♂.

ceratomiae Riley. Que. and N. S. to D. C., west to Oreg. and N. Mex. Hosts: *Ceratomia amyntor* (Hbn.); *Paonias excaecata* (A. and S.); *Sphinx drupiferarum* (A. and S.); *S. gordius* Stoll.
Microplitis ceratomiae Riley, 1881. Acad. Sci. St. Louis, Trans. 4: 303. ♂ ♀.
Microplitis waldeni Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 203, 204.

coactus Lundbeck. Greenland. Host: *Noctua* sp.
Microplitis coactus Lundbeck, 1896. Vid. Medd. Naturh. Foren. Kjobenhavn, p. 243. ♀.

coloradensis Muesebeck. Mich., Minn., Colo.

Microplitis coloradensis Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 44, 49. ♂.

confusus Muesebeck. Ont., N. Y., Md., Ind., Mich., Tex.
Microplitis confusus Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 46, 69. ♀ ♂.

crenulatus (Provancher). Que., Mass.
Microgaster crenulatus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., pp. 385, 387. ♀.

croceipes (Cresson). N. J. to Ga., west to Oreg., N. Mex. and Tex. Hosts: *Heliothis armigera* (Hbn.); *H. virescens* (F.).
Microgaster croceipes Cresson, 1872. Amer. Ent. Soc. Trans. 4: 183. ♀.
Microplitis nigripennis Ashmead, 1905. U. S. Dept. Agr. Bur. Ent. Bul. 50: 121, 122.

feltiae Muesebeck. Ind. to Ala., west to Wash., Ariz. and Tex. Hosts: *Agrotis* gladiaria Morr.; *A. annexa* Treits.; *Feltia subgothica* (Haw.); *F. ducens* (Wlkr.); *Peridroma margaritosa* form *saucia* (Hbn.).
Microplitis feltiae Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 46.
Microgaster (!) ***feltiae*** Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 62. ♂.

gortynae Riley. N. Y., Va., Ohio, Miss., Wis., Mo., Iowa, Colo., Oreg. Hosts: *Achatodes zeae* (Harr.); *Hydroecia immanis* Grote; *Papaipema nebris* (Guen.); *P. pertincta* Dyar.
Microplitis gortynae Riley, 1881. Acad. Sci. St. Louis, Trans. 4: 304. ♂ ♀.
Biology: Balduf, 1929. Ohio Jour. Sci. 29: 219.—Decker, 1935. Iowa State Col. Jour. Sci. 9: 571–572.

hyphantriae Ashmead. Ont., Mass., N. Y., N. J., Md., Ohio, Mich., Ind., Ill., Ark., Mo., Tex. Hosts: *Hyphantria cunea* (Drury); *Xylina* sp.; *Acronicta furcifera* Guen.; *A. hasta* Guen.
Microplitis hyphantriae Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 164. ♀ ♂.

kewleyi Muesebeck. Ont., N. Y., Md., D. C., Mich., Wis., Iowa. Host: *Euxoa* sp.
Microplitis kewleyi Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 44, 51. ♀ ♂.

laticinctus Muesebeck. Que., Mass., N. Y., D. C., Ohio, Ala., Ill., Iowa.
Microplitis laticinctus Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 46, 67. ♀ ♂.

latistigma Muesebeck. Md. (Hagerstown).
Microplitis latistigmus Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 46, 63. ♀.

longicauda Muesebeck. Colo., Idaho, Oreg.
Microplitis longicaudus Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 45, 57. ♀.

mamestrae Weed. Mass., Conn., N. Y., N. J., Ohio, Mich., Ill., N. Mex. Host: *Mamestra picta* Harr.
Microplitis mamestrae Weed, 1887. Ill. State Lab. Nat. Hist. Bul. 3: 2. ♀.

maturus Weed. Ont. to Fla., west to Ill., Iowa and La.; S. Dak. Hosts: *Drasteria* sp.; *Caenurgina erechtea* Cram.
Microplitis maturus Weed, 1888. Amer. Ent. Soc. Trans. 15: 294. ♂ ♀.
Microplitis cincta Ashmead, 1891. Canad. Ent. 23: 3. ♂.
Microgaster tuckeri Viereck, 1905. Kans. Acad. Sci. Trans. 19: 274. ♀.

mediator (Haliday). Europe; Greenland.
Microgaster mediator Haliday, 1834. Ent. Mag. 2: 235. ♀ ♂.
Microgaster fulvicornis Wesmael, 1837. Nouv. Mem. Acad. Sci. Bruxelles 10: 44. ♀ ♂.

melianae Viereck. Ont., N. Y., Ohio, Ill., Tenn., Iowa, Kans. Hosts: *Protoleucania albilinea* (Hbn.); *Cirphis unipuncta* (Haw.); *Heliothis armigera* (Hbn.).
Microplitis melianae Viereck, 1911. U. S. Natl. Mus. Proc. 40: 185. ♂.

montanus Muesebeck. Calif. (Santa Cruz Mts.). Host: *Catocala verilliana* Grote.

Microplitis montanus Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 46, 71. ♀ ♂.

nigritus Muesebeck. Colo.
Microplitis nigritus Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 45, 58. ♀ ♂.

perplexus Muesebeck. Ont., Maine, Ind., B. C.
Microplitis perplexus Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 44, 49. ♀.

plutellae Muesebeck. Iowa, Colo., Idaho, Calif. Host: *Plutella maculipennis* (Curt.).
Microplitis plutellae Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 46, 60. ♀ ♂.

4-dentatus (Provancher). Ont., Maine, N. H., Mass., N. Y., Ill., S. Dak. Host: *Simyra albovenosa* (Goez).
Microgaster 4-dentatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., pp. 138, 140. ♂.
Microplitis terminatus Weed, 1888. Amer. Ent. Soc. Trans. 15: 295. ♂ ♀.

quintilis Viereck. Conn.
Microplitis quintilis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 203, 204. [♂].

rugosus Muesebeck. N. J. (Ashland).
Microplitis rugosus Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 44, 48. ♂.

scutellatus Muesebeck. Iowa, Kans., S. Dak., Mont., Wash., Oreg.
Microplitis scutellatus Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 46, 66. ♀.

stigmaticus Muesebeck. B. C., Wash., Idaho, N. H.
Microplitis stigmaticus Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 44, 47. ♀ ♂.

striatus Muesebeck. Tex.
Microplitis striatus Muesebeck, 1922. U. S. Natl. Mus. Proc. 61 (15): 46, 64. ♂.

varicolor Viereck. Que. to Fla., west to Colo. and Tex.
Hosts: *Cirphis unipuncta* (Haw.); *Plathypena scabra* (F); *Leucania latiuscula* H.-S.
Microplitis varicolor Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 203, 204.

Subfamily CARDIOCHILINAE

Genus CARDIOCHILES Nees

Cardiochiles Nees, 1818. Nov. Act. Acad. Caes. Leop. Car. 9: 307. No species.
Type: ***Ichneumon saltator*** Fabricius. Included by Nees, 1834.
Toxoneuron Say, 1836. Boston Jour. Nat. Hist. 1: 258.
Type: ***Bracon (Toxoneuron) viator*** Say. Desig. by Viereck, 1914.
Tenthredoides Cresson, 1865. Ent. Soc. Phila. Proc. 4: 290.
Type: ***Tenthredoides seminiger*** Cresson. Monob.
Toxoneura Cresson, 1887. Amer. Ent. Soc. Trans. Sup. Vol., pp. 61, 154. Emend.
Ditherus Cameron, 1902. Bombay Nat. Hist. Soc. Jour. 14: 434.
Type: ***Ditherus ruficollis*** Cameron. Monob.
Schönlandella Cameron, 1904. Rec. Albany Mus. 1: 169.
Type: ***Schönlandella nigromaculata*** Cameron. Desig. by Viereck, 1914.
Ernestiella Cameron, 1905. Spolia Zeylanica 3: 81.
Type: ***Ernestiella nigromaculata*** Cameron. Monob.
Toxoneurum Schulz, 1906. Spolia Hym., p. 137. Emend.
Hartemita Cameron, 1910. Wien. Ent. Ztg. 29: 99.
Type: ***Hartemita latipes*** Cameron. Monob.
Psilommiscus Enderlein, 1912. Arch. f. Naturgesch. 78: 98.

Type: ***Psilommiscus sumatranus*** Enderlein. Monob.
Revision: Mao, 1949. U. S. Natl. Mus. Proc. 99: 229–266.

There are very few host records, but apparently the species of this genus parasitize lepidopterous larvae.

abdominalis (Cresson). D. C., La., Ill., Tex.
Toxoneuron abdominale Cresson, 1873. Canad. Ent. 5: 66, 68. ♂.

apicalis (Cresson). N. J., Md., Va., Ga., Ill., Iowa, Kans.
Toxoneuron apicale Cresson, 1873. Canad. Ent. 5: 66, 68. ♂.

arugosus Mao. Ont. to Ga., west to Oreg. and Tex.
Cardiochiles arugosus Mao, 1949. U. S. Natl. Mus. Proc. 99: 233. ♀ ♂.

brevitarsis Mao. Calif.
Cardiochiles brevitarsis Mao, 1949. U. S. Natl. Mus. Proc. 99: 235. ♀.

californicus (Ashmead). Calif.
Toxoneura californica Ashmead, 1894. Ent. Soc. Wash. Proc. 3: 49, 50. ♀.

dignus Mao. Tex. (Victoria).
Cardiochiles dignus Mao, 1949. U. S. Natl. Mus. Proc. 99: 237. ♀.

dilatus Mao. Calif.
Cardiochiles dilatus Mao, 1949. U. S. Natl. Mus. Proc. 99: 238. ♀ ♂.

explorator (Say). Ohio, Ind., Ill., Kans., Mo., Colo., Tex., N. Mex., Ariz. Host: *Loxostege similalis* (Guen.).
Bracon (Toxoneuron) explorator Say, 1836. Boston Jour. Nat. Hist. 1: 259.

floridanus (Ashmead). Ont., Ga.; Fla., Kans., Mexico. Host: *Epipaschia zelleri* (Grote).
Toxoneura floridana Ashmead, 1894. Ent. Soc. Wash. Proc. 3: 49, 50. ♂.

insculptus Mao. N. C. (Beaufort). Host: *Gnorimoschema operculella* (Zell.).
Cardiochiles insculptus Mao, 1949. U. S. Natl. Mus. Proc. 99: 241. ♀ ♂.
C[ardiochiles] operculellus Mao, 1949. U. S. Natl. Mus. Proc. 99: pl. 4, fig. 8. N. syn.

levis Mao. N. Mex.; Mexico.
Cardiochiles levis Mao, 1949. U. S. Natl. Mus. Proc. 99: 242. ♀ ♂.

magnus Mao. Kans., Tex., Colo., N. Mex. Host: *Schinia* sp.
Cardiochiles magnus Mao, 1949. U. S. Natl. Mus. Proc. 99: 243. ♀ ♂.

minutus (Cresson). Ont., Va., Ill., Tenn., Iowa.
Toxoneuron minutum Cresson, 1873. Canad. Ent. 5: 66, 67. ♀.

nebrascensis Mao. Nebr.
Cardiochiles nebrascensis Mao, 1949. U. S. Natl. Mus. Proc. 99: 245. ♀.

nigricans Mao. Calif. (Jacumba).
Cardiochiles nigricans Mao, 1949. U. S. Natl. Mus. Proc. 99: 246. ♂.

nigriceps Viereck. D. C., Va., S. C., Ga., Fla., Ala., Ark., Miss., La. Host: *Heliothis virescens* (F.).
Cardiochiles nigriceps Viereck, 1912. U. S. Natl. Mus. Proc. 43: 578. ♀ ♂.
Biology: Chamberlin and Tenhet, 1926. Jour. Agr. Res. 33: 21–27.

nigroclypeus Viereck. Kans., Tex.
Cardiochiles nigroclypeus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 275. ♂.

orizabae (Cresson). Ga., Ala., Fla., Ark., La., Kans., Ariz., Tex.; Mexico.
Toxoneuron orizabae Cresson, 1873. Canad. Ent. 5: 66, 67. ♂.

pluto (Ashmead). Calif.
Toxoneura pluto Ashmead, 1894. Ent. Soc. Wash. Proc. 3: 48, 49. "♀"=♂.

pullus Mao, n. status. N. J., Ohio, Kans., S. Dak., Tex., Utah, Oreg., La.
Cardiochiles arugosus var. ***pullus*** Mao, 1949. U. S. Natl. Mus. Proc. 99: 234. ♀ ♂.

rubicundus Mao. N. Mex. (Las Cruces).
Cardiochiles rubicundus Mao, 1949. U. S. Natl. Mus. Proc. 99: 250. ♀.

rubidus Mao. Oreg., Ariz.
Cardiochiles rubidus Mao, 1949. U. S. Natl. Mus. Proc. 99: 251. ♀.

rufostigma Mao. Calif.
Cardiochiles rufostigma Mao, 1949. U. S. Natl. Mus. Proc. 99: 252. ♀ ♂.

seminiger (Cresson). Iowa, Kans., Colo., Mont., Utah, N. Mex., Tex., Ariz.
Tenthredoides seminiger Cresson, 1865. Ent. Soc. Phila. Proc. 4: 291. ♀ ♂.

tennessensis Mao. Tenn. (Clarksville). Host: ?*Heliothis virescens* (F.).
Cardiochiles tennessensis Mao, 1949. U. S. Natl. Mus. Proc. 99: 254. ♀.

texensis Mao. Tex.
Cardiochiles texensis Mao, 1949. U. S. Natl. Mus. Proc. 99: 255. ♀.

thoracicus (Cresson). Ariz., Mexico.
Toxoneuron thoracicum Cresson, 1873. Canad. Ent. 5: 66, 68. ♂ ♀.

thurberiae Rohwer, emend. Ariz., Tex.
Cardochiles (!) ***therberiae*** Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 226. "♂"=♀.

tibiator (Say). Pa., Md., Va., D. C., Ga., Ky., Kans.
Bracon tibiator Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 322. ♀.

transversus Mao. Calif. (Los Angeles).
Cardiochiles transversus Mao, 1949. U. S. Natl. Mus. Proc. 99: 260. ♀ ♂.

truncus Mao. Nebr., Colo.
Cardiochiles truncus Mao, 1949. U. S. Natl. Mus. Proc. 99: 261. ♀ ♂.

viator (Say). Conn., Pa., N. J., Md., Va., Ohio, Ind., Ill., Ky., Colo., Tex.
Bracon (Toxoneuron) viator Say, 1836. Boston Jour. Nat. Hist. 1: 258.

Subfamily ICHNEUTINAE

Little is known about host relations for this group, but apparently the hosts are sawflies.

Genus ICHNEUTES Nees

Ichneutes Nees, 1816 (1813). Mag. Gesell. Naturf. Freunde Berlin 7: 275.
Type: ***Ichneutes reunitor*** Nees. Monob.

alaskensis Ashmead. Alaska (Popof Isl.).
Ichneutes alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 251. ♂.

bicarinatus (Ashmead). Canada.
Opius bicarinatus Ashmead, 1891. Canad. Ent. 23: 4. ♂.

bicolor Cresson. Mass.
Ichneutes bicolor Cresson, 1872. Canad. Ent. 4: 230. ♀.

fulvipes Cresson. Ill.
Ichneutes fulvipes Cresson, 1872. Canad. Ent. 4: 231. ♂.

popofensis Ashmead. Alaska (Popof Isl.).
Ichneutes popofensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 250. ♂.

Genus PROTEROPS Wesmael

Proterops Wesmael, 1835. Nouv. Mem. Acad. Sci. Bruxelles 9: 201.
Type: ***Proterops nigripennis*** Wesmael. Monob.

californicus Cresson. Calif.
Proterops californicus Cresson, 1873. Canad. Ent. 5: 69. ♂.

Genus ICHNEUTIDEA Ashmead

Ichneutidea Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 133.
Type: ***Ichneutes abdominalis*** Cresson. Monob. and orig. desig.
Proteropoides Viereck, 1909. Ent. Soc. Wash. Proc. 11: 42.
Type: ***Proteropoides hertzogi*** Viereck. Monob. and orig. desig.

abdominalis (Cresson). Fla., Iowa, Mont., Tex., Calif. Host: *Sterictiphora* sp.
Ichneutes abdominalis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 179. ♀.

proteroptoides Viereck. Que. to Va., west to S. Dak. and Colo.; Mexico. Host: *Stericiphora zabriskiei* (Webster and Malley).
Ischneutidea (!) ? ***proteroptoides*** Viereck, 1905. Kans. Acad. Sci. Trans. 19: 274. ♀.
Ichneutidea secunda Rohwer, 1908. Ent. News 19: 419. ♀. N. syn.
Proteropoides hertzogi Viereck, 1909. Ent. Soc. Wash. Proc. 11: 42. ♀. N. syn.

Subfamily CHELONINAE

Parasites of lepidopterous larvae. Eggs are laid in eggs of the hosts but the parasitic larvae do not become mature until the hosts have reached maturity.

Genus SIGALPHUS Latreille

Sigalphus Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 327.
Type: ***Ichneumon irrorator*** Fabricius. Desig. by Viereck, 1914.
Sphaeropyx Illiger, 1807. Mag. Insektenk. 6: 192.
Type: ***Ichneumon irrorator*** Fabricius. Monob.
Rhytigaster Wesmael, 1835. Nouv. Mem. Acad. Sci. Bruxelles 9: 206.
Rhitigaster Wesmael, 1835. Nouv. Mem. Acad. Sci. Bruxelles 9: 247.
Type: ***Ichneumon irrorator*** Fabricius. Desig. by Westwood, 1839.
Rhytidogaster Agassiz, 1846. Nomencl. Zool. Index Univ., p. 327. Emend.

bicolor (Cresson). Mass. to Fla., west to Tenn., Okla. and Miss. Host: *Acronicta ?pruni* (Harr.).
Rhytigaster bicolor Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xvii. ♂ ♀.
Biology: Cushman, 1913. Ent. Soc. Wash. Proc. 15: 157–160.

Genus PHANEROTOMA Wesmael

Phanerotoma Wesmael, 1838. Nouv. Mem. Acad. Sci. Bruxelles 11: 165.
Type: ***Chelonus dentatus*** Panzer. Desig. by Westwood, 1839.
Phanerogaster Wesmael, 1838. Nouv. Mem. Acad. Sci. Bruxelles 11: 165. Emend.
Neophanerotoma Szépligeti, 1908. Notes Leyden Mus. 29: 227. N. syn.
Type: ***Phanerotoma orientalis*** Szépligeti. Desig. by Viereck, 1914.

erythrocephala Rohwer. Colo. (Glenwood Springs). Host: ?*Laspeyresia toreuta* (Grote).
Phanerotoma erythrocephala Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 166. ♀ ♂.

fasciata Provancher.[10] Ont. south to Fla. and west to B. C. and Tex. Hosts: *Melissopus latiferreanus* (Wlsm.); *Grapholitha molesta* (Busck); *G. packardi* Zell.; *Carpocapsa pomonella* (L.); *Laspeyresia caryana* (Fitch); *L. nigricana* (Steph.).
Phanerotoma fasciata Provancher, 1881. Nat. Canad. 12: 200. ♀.
Phanerotoma tibialis auct., not Haldeman.

franklini Gahan. N. S., Mass., N. J. Host: *Mineola vaccinii* (Riley).
Phanerotoma franklini Gahan, 1917. U. S. Natl. Mus. Proc. 53: 200. ♀ ♂.

laspeyresiae Rohwer. Oreg., Idaho, Mont., Calif. Host: *Laspeyresia toreuta* (Grote).
Phanerotoma laspeyresia (!) Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 230. ♂.

recurvariae Cushman. Ont., Mich. Host: *Recurvaria nanella* (Hbn.).
Phanerotoma recurvariae Cushman, 1914. Ent. Soc. Wash. Proc. 16: 78. ♀ ♂.

rhyacioniae Cushman. Va., La., Miss. Host: *Rhyacionia frustrana* (Comst.).
Phanerotoma rhyacioniae Cushman, 1927. Jour. Agr. Res. 34: 740. ♀ ♂.

[10]The authors are indebted to G. S. Walley for clarification of the identity of this species, which has long been misidentified as *tibialis* (Hald.).

tibialis (Haldeman). Ont., Pa., Fla., Ark., Tex., Wash., Oreg. Hosts: *Acrobasis caryae* Grote; *A. caryivorella* Rag.; *A. sylviella* Ely; *A. rubrifasciella* Pack.; *Tetralopha asperatella* (Clem.); *Mineola* sp.
Sigalphus tibialis Haldeman, 1849. Acad. Nat. Sci. Phila. Proc. 4: 203. ♀.
Biology: Dohanian, 1942. Jour. Econ. Ent. 35: 838.

Genus ASCOGASTER Wesmael

Ascogaster Wesmael, 1835. Nouv. Mem. Acad. Sci. Bruxelles 9: 226.
Type: ***Ascogaster instabilis*** Wesmael. Desig. by Foerster, 1862.

argentifrons (Provancher), n. comb. Que., Pa., N. J., Ill. Host: *Depressaria heracliana* (L.).
Chelonus argentifrons Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., pp. 144, 145. ♂.

flaviceps Ashmead. Mich., Ill., Tex.
Ascogaster flaviceps Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 636. ♀.

mimetica Viereck. N. Y., Ill., Iowa, Kans.
Ascogaster mimeticus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 277. ♀.

olethreuti Viereck. Wash., Colo. Host: *Endothenia rubipunctana* (Kearf.)
Ascogaster olethreuti Viereck, 1912. U. S. Natl. Mus. Proc. 42: 617. ♀ ♂.

provancheri Dalla Torre. Que., N. Y., N. J., Ohio. Host: *Taniva albolineana* (Kearf.).
Ascogaster rufipes Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 146. ♀. Preocc.
Ascogaster Provancheri Dalla Torre, 1898. Cat. Hym., v. 4, p. 196. N. name.

provancheri var. **pallidicornis** Viereck. Ont., N. H., Conn., N. Y., N. J.
Ascogaster provancheri var. ***pallidicornis*** Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 231.

quadridentata Wesmael. N. S. to Va., west to Ind.; Oreg.; Europe.
Hosts: *Carpocapsa pomonella* (L.); *Grapholitha molesta* (Busck); *Gelechia* sp.; *Desmia funeralis* (Hbn.).
Ascogaster quadridentatus Wesmael, 1835. Nouv. Mem. Acad. Sci. Bruxelles 9: 237. ♂ ♀.
Chelonus carpocapsae Viereck, 1909. Ent. Soc. Wash. Proc. 11: 43.
Biology and morphology: Rosenberg, 1934. Bul. Ent. Res. 25: 232–241.

rufa Muesbeck and Walkley, n. name. Md., Ga., Kans., Iowa.
Ascogaster erythrothorax Viereck, 1916. Biol. Soc. Wash. Proc. 29: 166. ♀. Preocc. by Marshall, 1897.

Genus CHELONUS Panzer

Subgenus CHELONUS Panzer

Chelonus Panzer, 1806. Krit. Revis. Insektenf. Deutschlands, v. 2, p. 99.
Type: ***Ichneumon oculator*** Fabricius. Desig. by Curtis, 1837.
Trachionus Haliday, 1833. Ent. Mag. 1: 265.
Type: ***Chelonus mandibularis*** Haliday. Monob.
Davisania La Munyon, 1877. Nebr. Assoc. Adv. Sci. Proc. [No page number.]
Type: ***Davisania aughei*** La Munyon. Desig. by Viereck, 1914.
Arichelonus Viereck, 1913. U. S. Natl. Mus. Proc. 44: 641.
Type: ***Chelonus aculeatus*** Ashmead. Monob. and orig. desig.

aculeatus Ashmead. Colo., Wyo.
Chelonus aculeatus Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 17. ♀.

altitudinus Viereck. Kans., Mo. Host: *Homeosoma electellum* (Hulst).
Chelonus altitudinus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 278. ♀.

annulipes Wesmael. Europe; Mass., Conn., N. J. Host: *Pyrausta nubilalis* (Hbn.).
Chelonus annulipes Wesmael, 1835. Nouv. Mem. Acad. Sci. Bruxelles 9: 221. ♀.
Biology and morphology: Vance, 1932. U. S. Dept. Agr. Tech. Bul. 294: 1–48.

aughei (La Munyon). Locality not given.
Davisania aughei La Munyon, 1877. Nebr. Assoc. Adv. Sci. Proc. [No page number.]

australis Viereck. N. Mex.
Chelonus australis Viereck, 1903. Amer. Ent. Soc. Trans. 29: 95. ♂.

basicinctus Provancher. Canada, Conn.
Chelonus basicinctus Provancher, 1881. Nat. Canad. 12: 198. ♀.

basilaris (Say). Pa., Conn.
Sigalphus basilaris Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2: 322.

connectens Cresson. La., Iowa, Tex.
Chelonus connectens Cresson, 1872. Amer. Ent. Soc. Trans. 4 : 180. ♀.

electus Cresson. Tex., Colo., Calif. Hosts: *Melitara* sp., *Ozamia* sp.
Chelonus electus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 180. ♂ ♀.

iridescens Cresson. Colo., Alaska.
Chelonus iridescens Cresson, 1865. Ent. Soc. Phila. Proc. 4: 294. ♂.

knabi Viereck. N. J., Va., Ohio. Host: *Chilo plejadellus* Zinck.
Chelonus knabi Viereck, 1911. U. S. Natl. Mus. Proc. 40: 178. ♀ ♂.

konkaputus Viereck. Conn. (New Haven).
Chelonus (Chelonus) konkaputus Viereck, 1917 (1916). Conn. Geol. and Nat. Hist. Survey Bul. 22: 232, 233. ♀.

laticinctus Cresson. Tex.
Chelonus laticinctus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 180. ♀.

lunatus Haldeman. Pa.
Chelonus lunatus Haldeman, 1849. Acad. Nat. Sci. Phila. Proc. 4: 203.

mysticorum Viereck. Conn. (New Haven).
Chelonus mysticorum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 232, 233. ♂.

nebraskaensis (La Munyon). Locality not given.
Davisania Nebraskaensis La Munyon, 1877. Nebr. Assoc. Adv. Sci. Proc. [No page number.]

parvus Say. Ind.
Chelonus parvus Say, 1836. Boston Jour. Nat. Hist. 1: 265.

pygmaeus Viereck. B. C. (Merritt).
Chelonus pygmaeus Viereck, 1925. Canad. Ent. 57: 72. ♂.

rufiventris Cresson. N. Dak., S. Dak., Colo. Host: *Agrotis orthogonia* Morr.
Chelonus rufiventris Cresson, 1865. Ent. Soc. Phila. Proc. 4: 293. ♂.

sassacus Viereck. Conn. (Woodmont).
Chelonus (Chelonus) sassacus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 232, 233. ♀.

secundus (Viereck), n. comb. B. C. (Merritt).
Arichelonus secundus Viereck, 1926. Canad. Ent. 58: 55. ♀.

sericeus (Say). N. Y., Fla., Ohio, Mich., Nebr., Kans., N. Dak., So. Dak., Colo., N. Mex., Mont., Wyo., Utah, N. W. T., B. C. Host: ?*Feltia ducens* (Wlkr.).
Sigalphus sericeus Say, 1824. *In* Keating, Narr. Lond's 2nd Exped., v. 2, p. 321. ♀.
Chelonus filicornis Cameron, 1887. Manchester Lit. Phil. Soc. Proc. 26: 135. N. syn.

sobrinus Haldeman. Pa.
Chelonus sobrinus Haldeman, 1849. Acad. Nat. Sci. Phila. Proc. 4: 203.

texanus Cresson. All U. S. Hosts: *Laphygma frugiperda* (A. and S.); *L. exempta* (Wlkr.); *L. exigua* (Hbn.); *Heliothis armigera* (Hbn.): *Prodenia* sp.; *P. praefica* Grote; *P. ornithogalli* Guen.; *Ephestia elutella* (Hbn.); *Loxostege sticticalis* (L.).
Chelonus texanus Cresson, 1872. Amer. Ent. Soc. Trans., p. 179. ♀.

Subgenus MICROCHELONUS Szépligeti

Microchelonus Szépligeti, 1908. Mus. Nat. Hungarici Ann. 6: 403.
Type: *Microchelonus hungaricus* Szépligeti. Monob.
Chelonella Szépligeti, 1908. Mus. Nat. Hungarici Ann. 6: 403. Preocc. N. syn.
Type: *Ascogaster basalis* Curtis. Desig. by Viereck, 1914.
Neochelonella Hincks, 1943. Entomologist 76: 98. N. name. N. syn.
Type: *Ascogaster basalis* Curtis. Autob.

ashmeadii Dalla Torre. Colo.
Chelonus atripes Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 16. ♀. Preocc.
Chelonus ashmeadii Dalla Torre, 1898. Cat. Hym., v. 4, p. 199. N. name.

blackburni Cameron. ?Tex., Hawaii. Host: *Ephestia kuehniella* Zell.
Chelonus carinatus Cameron, 1881. Ent. Soc. London Trans., p. 559. ♀. Preocc.
Chelonus blackburni Cameron, 1886. Manchester Lit. and Phil. Soc. Mem. (ser. 3) 10: 242. N. name.
Chelonus cameronii Dalla Torre, 1898. Cat. Hym. 4: 200. N. name.

carinatus Provancher. Canada.
Chelonus carinatus Provancher, 1881. Nat. Canad. 12: 198, 199. ♀.
Chelonus Provancheri Dalla Torre, 1898. Cat. Hym., v. 4, p. 206. N. name.

cautus Cresson. Tex., Ariz., La.; Lower Calif., Mexico, Cent. Amer.
Chelonus cautus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 180. "♀"=♂.
Chelonus albobasilaris Ashmead, 1894. Calif. Acad. Sci. Proc. (2) 4: 123. ♂. N. syn.
Chelonus nucleolus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 287. ♀. N. syn.

egregicolor Viereck. Conn. to D. C. west to Iowa and Kans. Hosts: *Pyrausta futilalis* (Led.); *Carpocapsa pomonella* (L.).
Chelonus egregicolor Viereck, 1905. Kans. Acad. Sci. Trans. 19: 278. ♂.

fissus Provancher. Que., Ont., Conn.
Chelonus fissus Provancher, 1880. Nat. Canad. 12: 198, 199. ♂.

hoppingi (Viereck), n. comb. B. C.
Chelonella hoppingi Viereck, 1925. Canad. Ent. 57: 71. ♂ ♀.

laevifrons Cresson. Colo.
Chelonus laevifrons Cressen, 1865. Ent. Soc. Phila. Proc. 4: 294. ♂.

lavernae Ashmead. Ont., N. J., Ohio, Ill., Mo. Host: *Mompha eloisella* (Clem.).
Chelonus lavernae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 635. ♂.

minimus Cresson. Tex.
Chelonus minimus Cressen, 1872. Amer. Ent. Soc. Trans. 4: 181. ♀.

nanus Provancher. Canada.
Chelanus nana Provancher, 1881. Nat. Canad. 12: 198, 200. ♀ ♂.

nigripennis Ashmead. Mass., N. Y., D. C., Va., Wis.
Chelonus nigripennis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 635. ♂.

pallidus Ashmead. Md. (Church Hill).
Chelonus pallidus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 635. ♀.

phthorimaeae Gahan. N. J., Va., La., Tex., Colo., Calif.
Hosts: *Gnorimoschema operculella* (Zell.); *Keiferia glochinella* (Zell.).
Chelonus phthorimaeae Gahan, 1917. U. S. Natl. Mus. Proc. 53: 199. ♀ ♂.

plesius (Viereck), n. comb. B. C.
Chelonella plesius Viereck, 1925. Canad. Ent. 57: 72. ♂.

proteus Gahan. Md. (Williamsport). Host: *Stagmatophora gleditschiaeella* (Chamb.)
Chelonus (Chelonella) proteus Gahan, 1919. U. S. Natl. Mus. Proc. 55: 116. ♀ ♂.

rufiscapus Provancher. Que., N. Y., Mich., Ind., Ill., S. Dak.
Chelonus rufiscapus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym. p. 144. ♀.

shoshoneanorum Viereck. Wyo., Colo., Idaho.
Chelonus shoshoneanorum Viereck, 1911. U. S. Natl. Mus. Proc. 39: 402. ♀.

Subfamily DACNUSINAE

The Nearctic species of this group are very imperfectly known; most of them still remain to be described. Synopses and revisions of the genera comprising the subfamily are badly needed. Apparently all the species are parasites of Diptera.

Genus SYMPHYA Foerster

Aenone Haliday, 1838. Ent. Mag. 5: 214. Preocc.
Type: *Sigalphus mandibularis* Nees. Desig. by Westwood, 1839.
Oenone Haliday, 1839. Hym. Brit. Alysia, p. 3. Emend.
Symphya Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 273.
Type: *Sigalphus mandibularis* Nees. Monob. and orig. desig.

agromyzae Rohwer. N. Y., D. C. Host: *Agromyza pruinosa* Coq.
Sympha (!) *agromyzae* Rohwer, 1914. Ent. News 25: 168, 171. ♀.

belfragei (Ashmead). Tex.
Oenone Belfragei Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 649. ♀ ♂.

lucida Rohwer. Wash. (Easton).
Sympha (!) *lucida* Rohwer, 1914. Ent. News 25: 168, 169. ♂.

nigricornis Rohwer. Colo.
Sympha (!) *nigricornis* Rohwer, 1914. Ent. News 25: 168, 170. ♀.

portlandica Rohwer. Oreg. (Portland).
Sympha (!) *portlandica* Rohwer, 1914. Ent. News 25: 168, 170. ♂.

sericea (Provancher). Ont., W. Va.
Oenone sericea Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym. p. 394. ♀.

Genus CHOREBUS Haliday

Chorebus Haliday, 1833. Ent. Mag. 1: 264.
Type. *Bassus affinis* Nees. Desig. by Viereck, 1914.
Ametria Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 274.
Type: *Dacnusa uliginosa* Haliday. Monob. and orig. desig.
Gyrocampa Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 276.
Type: *Bassus affinis* Nees. Monob. and orig. desig.
Liposcia Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 276. N. syn.
Type: *Liposcia discolor* Foerster. Monob. and orig. desig.

aquaticus Muesebeck. Calif. Host: *Hydrellia griseola* var. *scapularis* Loew.
Chorebus aquaticus Muesebeck, 1950. Ent. Soc. Wash. Proc. 52: 77. ♀ ♂.

Genus BRACHYSTROPHA Foerster

Brachystropha Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 274.
Type: *Brachystropha monticola* Foerster. Monob. and orig. desig.

linearis (Provancher) Que.
Microctonus linearis Provancher, 1886. Addit. Corr. Faune Ent. Canada. Hym., p. 127. ♀.

quadriceps Ashmead. N. Y. (Saranac Inn).
Brachystropha quadriceps Ashmead, 1901. N. Y. State Mus. Bul. 47: 587. ♂.

Genus DACNUSA Haliday

Dacnusa Haliday, 1833. Ent. Mag. 1: 264.
Type: *Bracon areolaris* Nees. Present desig.
Rhizarcha Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 275.

Type: ***Bracon areolaris*** Nees. Monob. and orig. desig.
Radiolaria Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 154.
Type: ***Radiolaria clavata*** Provancher. Monob.

agromyzae Gahan. Ind., Del. Host: *Agromyza angulata* Loew.
Dacnusa agromyzae Gahan, 1913. Canad. Ent. 45: 153. ♀ ♂.

alaskensis (Ashmead), n. comb. Alaska (St. Paul Isl.).
Gyrocampa alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 242. ♀.

astigma (Ashmead), n. comb. N. Y. (Saranac Inn).
Rhizarcha astigma Ashmead, 1901. N. Y. State Mus. Bul. 47: 587. ♀ ♂.

clavata (Provancher). Que.
Radiolaria clavata Provancher, 1886. Addit. Corr. Faune Ent. Canada, Hym., p. 155. ♀.

confusa Ashmead. Mich. (Monroe).
Dacnusa confusa Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 650. ♂.

crassitela Provancher. Ont., Mich., Iowa.
Dacnusa crassitela Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 148. ♀.

dubiosa (Ashmead), n. comb. Alaska (Unalaska).
Liposcia dubiosa Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 243. ♂.

flavocincta Ashmead. Tenn., D. C.
Dacnusa flavocincta Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 651. ♂.

harringtoni (Ashmead), n. comb. Alaska (Juneau).
Rhizarcha harringtoni Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 242. ♂.

iridicola Gahan. Pa., Fla. Host: *Agromyza laterella* Zett.
Dacnusa iridicola Gahan, 1919. U. S. Natl. Mus. Proc. 55: 115. ♀.

laeviceps Cresson. Tex.
Dacnusa laeviceps Cresson, 1872. Amer. Ent. Soc. Trans. 4: 191. ♀.

minima Cresson. Tex.
Dacnusa minima Cresson, 1872. Amer. Ent. Soc. Trans. 4: 191. ♂.

oscinidis Ashmead. Mo. (Kirkwood). Host: *Oscinis* sp. on honeysuckle.
Dacnusa oscinidis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 650. ♀ ♂.

parva (Provancher), n. comb. Que. (Chicontimi).
Rhitigaster parvus Provancher, 1883. Faune Ent. Canada, Hym., p. 805. ♀.

sachemella Viereck. Conn. (West Haven).
Dacnusa sachemella Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 213. ♀.

scaptomyzae Gahan. N. Y., Md. Host: *Scaptomyza flaveola* (Meig.).
Dacnusa scaptomyzae Gahan, 1913. Canad. Ent. 45: 150. ♀ ♂.

spatulata Provancher. Ont. (Ottawa).
Dacnusa spatulata Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 148, 149. ♂.

Genus COELINIDEA Viereck

Coelinidea Viereck, 1913. U. S. Natl. Mus. Proc. 44: 555.
Type: ***Stephanus niger*** Nees. Orig. desig.
Eriocoelinius Viereck, 1913. U. S. Natl. Mus. Proc. 44: 555.
Type: ***Coelinius longulus*** Ashmead. Monob.

ferruginea Gahan. Ont. to Mo., west to Alta., Oreg. and Ariz. Host: *Meromyza americana* Fitch.
Coelinidea ferruginea Gahan, 1913. U. S. Natl. Mus. Proc. 46: 434. ♀ ♂.

hopkinsii (Ashmead). N. S. and Que., to Va., west to Man., Colo., and Tex.
Coelinius Hopkinsii Ashmead, 1893. Canad. Ent. 25: 79. ♀.

longula (Ashmead). Colo. (Garland).

Coelinius longulus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 651. ♂.

mahackemoi (Viereck), n. comb. Conn. (Branford).
Eriocoelinius mahackemoi Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 212. ♂.

meromyzae (Forbes). Maine, to Md. west to Mont. and Utah. Host: *Meromyzae americana* Fitch.
Coelinius meromyzae Forbes, 1884 (1883). Noxious Ins. Ill. Rpt. 13: 26. ♀ ♂.

nigripes (Ashmead). N. Y., Mich., Ill., Colo.
Coelinius nigripes Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 19. ♂.

occom Viereck. Conn. (New Haven).
Coelinidea occom Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 212. ♂.

Subfamily ALYSIINAE

Parasites of Diptera. Like the Dacnusinae this subfamily is much in need of study. Most of the Nearctic species are still undescribed.

Genus APHAERETA Foerster

Aphaereta Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 264.
Type: ***Alysia cephalotes*** Haliday. Monob. and orig. desig.
Trichesia Provancher, 1881. Nat. Canad. 12: 203.
Type: ***Trichesia auripes*** Provancher. Monob.
Trinaria Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 149. N. syn.
Type: ***Trinaria pilicornis*** Provancher. Monob.
Aphaerete Dalla Torre, 1898. Cat. Hym., v. 4, p. 41. Emend.

auripes (Provancher). Que., all U. S. Hosts: *Siphona irritans* (L.); *Agromyza platyptera* var. *jucunda* Wulp. *Tritoxa flexa* (Wied.); *Muscina assimilis* (Fall.); *Lucilia* sp.; *Hylemya antiqua* (Meig.); *H. cilicrura* (Rond.); *Oscinis* sp.; *Sarcophaga l'herminieri* (Desv.); *S. rapax* Wlkr.
Trichesia auripes Provancher, 1881. Nat. Canad. 12: 203. ♂ ♀.
Trinaria pilicornis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 149. ♀. N. syn.
Aphaereta muscae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 636. ♀ ♂. N. syn.
Aphaereta californica Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 647. ♀. N. syn.
Aphaereta oscinidis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 647. ♀. N. syn.

delosa Viereck. Kans. (Douglas Co.).
Aphaereta delosa Viereck, 1905. Kans. Acad. Sci. Trans. 19: 283. ♀ ♂.

pallipes (Say). Ind.
Alysia pallipes Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 77.
Aphaerete pallidipes Dalla Torre, 1898. Cat. Hym., v. 4, p. 42. Emend.

pegomyiae Brues. Minn. Host: *Hylemya brassicae* (Bouché).
Aphaereta pegomyiae Brues, 1907. Extr. MS. Rpt. Minn. State Ent., p. 4. ♀ ♂.

sarcophagae Gahan. Kans., Calif. Host: *Sarcophaga kellyi* Ald.
Aphaereta sarcophagae Gahan, 1914. U. S. Natl. Mus. Proc. 48: 158. ♀ ♂.

subtricarinata Viereck. Kans.
Aphaereta subtricarinata Viereck, 1905. Kans. Acad. Sci. Trans. 19: 283. ♀.

Genus GLYPHOGASTER[11] Muesebeck and Walkley, new genus

Appears to differ from all other genera of Alysiinae by the following

[11]From γλυφω, to carve; and γαστηρ, abdomen.

combination of characters: Notaulices complete; a fovea at junction of notaulices; stigma much longer than radial cell measured on wing margin and more than twice as wide as length of first abscissa of radius; second cubital cell short and narrow, but with second abscissa of radius longer than first intercubitus; radial cell not nearly attaining apex of wing; second and third tergites separated by an impressed line; first and second tergites finely sculptured, mat; ovipositor subexserted.

Type: ***Acrobela tachinae*** Ashmead.

tachinae (Ashmead), n. comb. N. H., Conn., Maine.
Acrobela tachinae Ashmead, 1898 (1897). Ent. Soc. Wash. Proc. 4: 170. ♀.

Genus PENTAPLEURA Foerster

Pentapleura Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 264.
Type: ***Bassus pumilo*** Nees. Monob. and orig. desig.

foveolata Viereck. Conn. (New Haven).
Pentapleura foveolata Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 213. ♂.

triticaphis (Fitch), n. comb. N. Y.
Toxares triticaphis Fitch, 1861 (1860). N. Y. State Agr. Soc. Trans. 20: 840.

Genus ALYSIA Latreille

Alysia Latreille, 1804. Nouv. Dict. Hist. Nat., v. 24, p. 173.
Type: ***Ichneumon manducator*** Panzer. Monob.
Cechenus Illiger, 1807. *In* Rossi, Faune Etrusca, v. 2, p. 54.
Type: ***Ichneumon manducator*** Panzer. Monob.
Bassus Nees, 1814 (1812). Mag. Gesell. Naturf. Freunde Berlin 6: 201.
Type: ***Ichneumon manducator*** Panzer. Present desig.
Goniarcha Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 265. N. syn.
Type: ***Alysia lucicola*** Haliday. Monob. and orig. desig.
Strophaea Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 265. N. syn.
Type: ***Alysia rufidens*** Nees. Monob. and orig. desig.

alticola (Ashmead), n. comb. Colo., Oreg., Calif.
Pentapleura alticola Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 18. ♀.

amabilis Dalla Torre. No. Amer.
Alysia fuscipennis Brullé, 1846. Hist. Nat. Ins., Hym., v. 4, p. 516. ♂. Preocc.
Alysia amabilis Dalla Torre, 1898. Cat. Hym., v. 4, p. 44. N. name.

fossulata Provancher. Calif., Alaska. Hosts: Blow flies.
Alysia fossulata Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 391. ♀.
Biology: Roberts, 1935. Jour. Agr. Res. 50: 484.

lucens Provancher. Canada.
Alysia lucens Provancher, 1881. Nat. Canad. 12: 202. ♀.

manducator Panzer. Europe; Greenland.
Ichneumon manducator Panzer, 1799. Faunae Ins. German., heft 72, no 4. ♀.

micans (Viereck), n. comb. N. Mex. (Beulah).
Anarcha micans Viereck, 1903. Amer. Ent. Soc. Trans. 29: 93. ♀.

provancheri Dalla Torre. Que.
Alysia nigriceps Provancher, 1881. Nat. Canad. 12: 203. ♀. Preocc.
Alysia provancheri Dalla Torre, 1898. Cat. Hym., v. 4, p. 48. N. name.

ridibunda Say. Ont. to Fla., west to Ariz. Hosts: Various Calliphoridae and Sarcophagidae.
Alysia ridibunda Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 77. ♂.
Opius macrocephalus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 123. ♀.

Biology: Roberts, 1935. Jour. Agr. Res. 50: 481–484.—Lindquist, 1940. Ent. Soc. Amer. Ann. 33: 103–112.

Genus IDIASTA Foerster

Idiasta Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 265.
Type: ***Alysia maritima*** Haliday. Monob. and orig. desig.

longicornis (Provancher). Ont. (Ottawa).
Rhopalophorus longicornis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 129. ♀.
Alysia completa Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 147. ♀. N. syn.

macrocera Ashmead. Ont., N. H., Mich.
Idiasta macrocera Ashmead, 1891. Canad. Ent. 23: 5. ♂.

Genus ANARCHA Foerster

Anarcha Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 265.
Type: ***Anarcha notabilis*** Foerster, 1862. Monob. and orig. desig.

coxalis Ashmead. Alaska (Sitka).
Anarcha coxalis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 241. ♂.

Genus ORTHOSTIGMA Ratzeburg

Orthostigma Ratzeburg, 1844. Ichn. d. Forstins., v. 1, p. 53.
Type: ***Aphidius flavipes*** Ratzeburg. Monob.
Ischnocarpa Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 268.
Type: ***Alysia pumila*** Nees. Monob. and orig. desig.
Delocarpa Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 268. N. syn.
Type: ***Delocarpa praedo*** Foerster. Monob. and orig. desig.

americana Brues. Wis. (Milwaukee).
Orthostigma americana Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 59. ♀.

Genus DINOTREMA Foerster

Dinotrema Forester, 1862. Naturh. Ver. Rheinlande Verh. 19: 268.
Type: ***Dinotrema erythropa*** Foerster. Monob. and orig. desig.

soror Brues. Pa. (Pittsburgh).
Dinotrema soror Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 59. ♀.

Genus MESOCRINA Foerster

Mesocrina Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 266.
Type: ***Mesocrina indagatrix*** Foerster. Monob. and orig. desig.

pegomyiae Brues. Minn. Host: *Hylemya brassicae* (Bouché).
Mesocrina pegomyiae Brues, 1907. Extr. MS. Rpt. Minn. State Ent., p. 3. ♀.

Genus ASPILOTA Foerster

Aspilota Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 268.
Type: ***Alysia ruficornis*** Nees. Monob. and orig. desig.
Scotioneurus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 152, 156.
Type: ***Scotioneurus stenostigma*** Provancher. Desig. by Gahan, 1913.
Biology: Evans, 1933. Bul. Ent. Res. 24: 385–405.

astigma (Provancher). Que.
Alysia astigma Provancher, 1883. Nat. Canad. 14: 18. ♀.
Aspilota astigma Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 393. ♀. N. syn.

atricornis (Ashmead), n. comb. N. Y. (Nyack).
Ischnocarpa atricornis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 648. ♂ ♀.

columbiana Viereck. Kans. (Douglas Co.).
Aspilota columbiana Viereck, 1905. Kans. Acad. Sci. Trans. 19: 282. ♀.

ephemera Viereck. Conn. (New Haven).
Aspilota ephemera Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 213. ♂.

petiolata (Provancher). Que., N. Y.
Rhopalophorus petiolatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 128. ♀.

signifrons (Viereck), n. comb. Kans. (Lawrence).
Dinotrema signifrons Viereck, 1906. Amer. Ent. Soc. Trans. 32: 177. ♂.

sitkensis (Ashmead), n. comb. Alaska (Sitka).
Delocarpa sitkensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 242. ♀.

stenostigma (Provancher). Ont., Mass.
Scotioneurus stenostigma Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 157. ♀.

subcompressa (Ashmead), n. comb. Calif. (Los Angeles Co.).
Adelura subcompressa Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 647. ♀ ♂.

Genus SYNALDIS Foerster

Synaldis Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 273.
Type: *Bassus concolor* Nees. Monob. and orig. desig.

incisa Gahan. Kans., Conn.
Synaldis incisa Gahan, 1912. Ent. Soc. Wash. Proc. 14: 4. ♀.

pygmaea Viereck. Conn. (New Haven).
Synaldis pygmaea Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 215. ♂.

quinnipiacorum Viereck. Conn. (West Haven).
Synaldis quinnipiacorum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 215. ♀.

ulmicola Ashmead. Ohio, Mo., Kans.
Synaldis ulmicola Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 651. ♀.

Genus OENONOGASTRA Ashmead

Oenonogastra Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 105.
Type: *Mesocrina microrhopalae* Ashmead. Monob. and orig. desig.

microrhopalae (Ashmead). N. Y. to N. C., west to Iowa. Host: *Microrhopala xerene* (Newm.).
Mesocrina microrhopalae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 217. ♂.

Genus HOPLITALYSIA Ashmead

Hoplitalysia Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 105.
Type: *Hoplitalysia slossonae* Ashmead. Monob. and orig. desig.

slossonae Ashmead. W. Va., Fla., Tex.
Hoplitalysia slossonae Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 105.

Genus KAHLIA Ashmead

Kahlia Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 107.
Type: *Kahlia flavipes* Ashmead. Monob. and orig. desig.

flavipes Ashmead. Kans. (Lawrence).
Kahlia flavipes Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 107.

Genus PHAENOCARPA Foerster

Phaenocarpa Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 267.
Type: ***Alysia picinervis*** Haliday. Monob. and orig. desig.
Asynaphes Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 150. N. syn.
Type: ***Asynaphes aciculata*** Provancher. Desig. by Viereck, 1914.

aciculata (Provancher), n. comb. Ont.
Asynaphes aciculata Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 150. ♀.

brevicauda (Provancher), n. comb. Que.
Asynaphes brevicauda Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 150, 151. ♀.

caudata (Provancher), n. conb. Ont.
Alysia caudata Provancher, 1881. Nat. Canad. 12: 202. ♀.

picinervis (Haliday). N. Y., D. C., Mich., Iowa, Oreg.
Alysia (Alysia) picinervis Haliday, 1838. Ent. Mag. 5: 233. ♀.
Phaenocarpa americana Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 648. ♀. N. syn.

rubriceps (Provancher). Que.
Alysia rubriceps Provancher, 1883. Nat. Canad. 14: 18. ♂.
Phaenocarpa rubricepes (!) Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 392. ♀. N. syn.

Genus ASOBARA Foerster

Asobara Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 267.
Type: ***Alysia tabida*** Nees. Monob. and orig. desig.
Spanista Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 267. N. syn.
Type: ***Spanista rufescens*** Foerster. Monob. and orig. desig.

barthii Brues. Wis. (Milwaukee). Host: *Temnostoma bombylans* (F.).
Asobara barthii Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 57. ♀ ♂.

fungicola (Ashmead), n. comb. Conn., Ohio, Ill.
Phaenocarpa (Spanista) fungicola Ashmead, 1894. Cincinnati Soc. Nat. Hist. Jour. 17: 49. ♂.
Asobara lineata Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 213. ♀. N. syn.

Subfamily OPIINAE

The members of this subfamily, with few if any exceptions, are parasites of Diptera, some of them important in the control of pest species.

Revision: Gahan, 1915. U. S. Natl. Mus. Proc. 49: 63–95.

Genus ADEMON Haliday

Ademon Haliday, 1833. Ent. Mag. 1: 266.
Type: ***Ademon descrescens*** Haliday. Monob.
Analostania Viereck, 1916. Biol. Soc. Wash. Proc. 29: 165. N. syn.
Type: ***Analostania tenuipes*** Viereck. Monob. and orig. desig.

niger (Ashmead). D. C., Va., Ill., Mich., Utah. Host: *Hydrellia* sp.
Clinocentrus niger Ashmead, 1895. Ill. State Lab. Nat. Hist. Bul. 4: 276. ♂.
Analostania tenuipes Viereck, 1916. Biol. Soc. Wash. Proc. 29: 165. ♀. N. syn.

Genus NEOPIUS Gahan

Neopius Gahan, 1917. U. S. Natl. Mus. Proc. 53: 203.
Type: ***Neopius carinaticeps*** Gahan, 1917. Monob. and orig. desig.

carinaticeps Gahan. N. Dak., N. J. In "*Agromyza* mine in *Hordeum*."
Neopius carinaticeps Gahan, 1917. U. S. Natl. Mus. Proc. 53: 204. ♂ ♀.

Genus GNAPTODON Haliday

Gnaptodon Haliday, 1837. (Nec *Gnamptodon* Haliday.) Ent. Mag. 14: 220. Proposed as subgenus of *Opius* Wesmael.
Type: ***Bracon pumilio*** Nees. Monob.
Diraphus Wesmael, 1838. Nouv. Mem. Acad. Sci. Bruxelles 11: 89.
Type: ***Diraphus pygmaeus*** Wesmael. Monob.

nepticulae (Rohwer), n. comb. Va., La., Ill., D. C. Host: *Nepticula castaneafoliella* Chamb.
Gnamptodon nepticulae Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 229. ♀ ♂.

Genus OPIUS Wesmael

Opius Wesmael, 1835. Nouv. Mem. Acad. Sci. Bruxelles 9: 115.
Type: ***Opius pallipes*** Wesmael. Present desig.
Psyttalia Walker, 1860. Ann. Mag. Nat. Hist. (3) 5: 311.
Type: (***Psyttalia testacea*** Walker)=***Opius walkeri*** Muesebeck. Monob.
Xynobius Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 235. N. syn.
Type: (***Xynobius pallipes*** Foerster)=***Aclisis isomera*** Foerster. Monob. and orig. desig.
Bathystomus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 235. N. syn.
Type: ***Bathystomus xanthopus*** Foerster. Monob. and orig. desig.
Atoreuteus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 241. N. syn.
Type: ***Atoreuteus striatus*** Foerster. Monob. and orig. desig.
Lytacra Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 258.
Type: ***Lytacra stygia*** Foerster. Monob. and orig. desig.
Zetetes Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 258.
Type: ***Zetetes ultor*** Foerster. Monob. and orig. desig.
Chilotrichia Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 258.
Type: ***Opius blandus*** Haliday. Monob. and orig. desig.
Biosteres Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 259.
Type: ***Bracon carbonarius*** Nees. Monob. and orig. desig.
Stenospilus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 259.
Type: ***Stenospilus vagator*** Foerster. Monob. and orig. desig.
Rhabdospilus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 259.
Type: ***Opius placidus*** Haliday. Monob. and orig. desig.
Diachasma Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 259.
Type: ***Opius fulgidus*** Haliday. Monob. and orig. desig.
Holconotus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 259.
Type: ***Opius comatus*** Wesmael. Monob. and orig. desig.
Apodesmia Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 259.
Type: ***Apodesmia taeniata*** Foerster. Monob. and orig. desig.
Allotypus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 259.
Type: ***Opius irregularis*** Wesmael. Monob. and orig. desig.
Phaedrotoma Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 260.
Type: ***Phaedrotoma depeculator*** Foerster. Monob. and orig. desig.
Eutrichopsis Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 260.
Type: ***Eutrichopsis munda*** Foerster. Monob. and orig. desig.
Therobolus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 260.
Type: ***Opius ruficeps*** Wesmael. Monob. and orig. desig.
Hypocynodus Forester, 1862. Naturh. Ver. Rheinlande Verh. 19: 260.
Type: ***Opius crassipes*** Wesmael. Monob. and orig. desig.
Cryptonastes Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 260.
Type: ***Cryptonastes tersus*** Forester. Monob. and orig. desig.
Hypolabis Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 260.
Type: ***Opius pallipes*** Wesmael. Orig. desig.
Biophthora Foerster, 1962. Naturh. Ver. Rheinlande Verh. 19: 260.
Type: ***Opius bajulus*** Haliday. Monob. and orig. desig.
Desmiostoma Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 260.
Type: ***Opius parvulus*** Wesmael. Monob. and orig. desig.
Nosopoea Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 260.
Type: ***Opius cingulatus*** Wesmael. Monob. and orig. desig.

Utetes Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 261.
Type: ***Opius testaceus*** Wesmael. Monob. and orig. desig.
Misophthora Forfster, 1862. Naturh. Ver. Rheinlande Verh. 19: 266. N. syn.
Type: ***Misophthora laevigata*** Foerster. Monob. and orig. desig.
Aclisis Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 267. N. syn.
Type: ***Aclisis isomera*** Foerster. Monob. and orig. desig.
Aulonotus Ashmead, 1900. Canad. Ent. 32: 368. N. name for *Holconotus* Foerster, preocc.
Type: ***Opius comatus*** Wesmael. Autob.
Trichopius Thomson, 1895. Opusc. Ent., fasc. 20, p. 2176.
Type: ***Opius blandus*** Haliday. Monob.
Opiellus Ashmead, 1900. Canad. Ent. 32: 368. N. name for *Zetetes* Foerster, preocc.
Type: ***Zetetes ultor*** Foerster. Autob.
?Trigonospilus Ashmead, 1901. U. S. Natl. Mus. Proc. 23: 134.
Type: ***Trigonospilus hopkinsi*** Ashmead. Monob. and orig. desig.
Diachasmimorpha Viereck, 1913. U. S. Natl. Mus. Proc. 44: 641.
Type: ***Diachasmimorpha comperei*** Viereck. Monob. and orig. desig.

aberrans Viereck. N. Y., Kans., Iowa.
Opius aberrans Viereck, 1905. Kans. Acad. Sci. Trans. 19: 271. ♀.

americanus Gahan. Ill. (Ozark hills).
Opius americanus Gahan, 1915. U. S. Natl. Mus. Proc. 49: 72, 91. ♂.

amplus (Ashmead). Iowa, Colo., Idaho, Oreg., Alaska.
Adelura ampla Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 19. ♀.

anthomyiae Ashmead. Conn., N. Y., N. J., Mich., Ill., Colo. Hosts: *Pegomya bicolor* (Wied.); *P. hyoscyami* (Panz.).
Opius anthomyiae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 654. ♀.
Opius (Desmiostoma) novaeangliae Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 182, 183. ♀. N. syn.

apicalis Gahan. Pa., Ill., Iowa, S. Dak., Colo.
Opius apicalis Gahan, 1915. U. S. Natl. Mus. Proc. 49: 71, 85. ♀ ♂.

appalachicola (Viereck). Kans.
Diachasma appalachicola Viereck, 1905. Kans. Acad. Sci. Trans. 19: 272. ♀.

aridis Gahan. N. Mex., Ariz., Calif. Hosts: *Agromyza pusilla* Meig; *A. scutellata* Fall.; *Cerodontha dorsalis* (Loew).
Opius aridis Gahan, 1913. Canad. Ent. 45: 147. ♀ ♂.

atrocoxalis (Ashmead), n. comb. Colo. (Willow Creek).
Homophyla atrocoxalis Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 18. ♀.

baldufi Muesebeck. Minn., Wis., Ill. Host: *Rhagoletis alternata* (Fall.).
Opius baldufi Muesebeck, 1950 (1949). Canada Ent. 81: 256. ♀ ♂.

basiniger Viereck. Kans. (Douglas Co.).
Opius basiniger Viereck, 1905. Kans. Acad. Sci. Trans. 19: 270. ♀.

bruneipes Gahan. Md., Fla. Host: *Agromyza pusilla* Meig.
Opius bruneipes Gahan, 1913. Canad. Ent. 45: 148. ♀ ♂.

brunneitarsis Gahan. Iowa (Ames).
Opius brunneitarsis Gahan, 1915. U. S. Natl. Mus. Proc. 49: 69, 77. ♀.

brunneiventris Cresson. Kans., Tex.
Opius brunneiventris Cresson, 1872. Amer. Ent. Soc. Trans. 4: 178. ♂.

canaliculatus Gahan. Md. (College Park).
Opius canaliculatus Gahan, 1915. U. S. Natl. Mus. Proc. 49: 70, 80. ♀.

cincticornis Gahan. Maine, N. Y., N. J., Md., Canada. Host: *Phyllotoma nemorata* Fall.
Opius cincticornis Gahan, 1915. U. S. Natl. Mus. Proc. 49: 70, 78. ♀.

cinctus Provancher. Ont., N. Y., Ohio, Ill., Alaska.
Opius cinctus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 124. ♀ ♂.

Prosapha hyalina Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 393. ♀. N. syn.

coloradensis Gahan. Colo. (Colorado Springs).
Opius coloradensis Gahan, 1915. U. S. Natl. Mus. Proc. 49: 70, 83. ♀.

coriaceus Gahan. N. Y., Va., Fla., Tenn., Miss., La. Host: *Cerodontha dorsalis* (Loew).
Opius coriaceus Gahan, 1917. U. S. Natl. Mus. Proc. 53: 201. ♀ ♂.

crassiceps Gahan. Va., D. C., Iowa, Colo.
Opius crassiceps Gahan, 1915. U. S. Natl. Mus. Proc. 49: 69, 78. ♀.

diastatae (Ashmead). S. C., Fla., Ind., Ala. Host: *Agromyza parvicornis* Loew.
Bracon diastatae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 617. ♀.

dimidiatus (Ashmead). N. Y. to Fla., west to S. Dak., Utah, Calif.; West Indies. Hosts: *Agromyza pusilla* Meig.; *A.* sp.; *A. scutellata* Fall.; *Cerodontha dorsalis* (Loew).
Adelura dimidiata Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 647. ♂.
Eutrichopsis agromyzae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 622. ♀ ♂.

downesi Gahan. B. C., Wash., N. Y. Hosts: *Rhagoletis pomonella* (Walsh); *R. tabellaria* (Fitch).
Opius downesi Gahan, 1919. Ent. Soc. Wash. Proc. 31: 164. ♀.

ehrhorni Gahan. Calif. (Mountain View).
Opius ehrhorni Gahan, 1915. U. S. Natl. Mus. Proc. 49: 71, 87. ♀.

exareolatus Viereck. Conn. (Branford).
Opius (Allotypus) exareolatus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 182, 183. ♀.

ferrugineus Gahan. Ont. to N. Y., west to Oreg.; Fla. Hosts: *Rhagoletis cingulata* (Loew); *R. fausta* O. S.; *R. pomonella* (Walsh).
Opius ferrugineus Gahan, 1915. U. S. Natl. Mus. Proc. 49: 69, 75. ♀ ♂.

flaviceps Gahan. Iowa (Ames).
Opius flaviceps Gahan, 1915. U. S. Natl. Mus. Proc. 49: 69, 76. ♀.

foersteri Gahan. Pa., Minn., Iowa., Mo., S. Dak. Host: *Argyrotaenia velutinana* (Wlkr.).
Opius foersteri Gahan, 1915. U. S. Natl. Mus. Proc. 49: 70, 83. ♀ ♂.

foveolatus Ashmead. N. Y., Md., Ohio, Ind., Iowa, S. Dak. Hosts: *Pegomya* sp.; *P. hyoscyami* (Panz.).
Opius foveolatus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 654. ♂.

fulvicollis Thomson. Europe; Maine, N. Y., Pa. Host: *Pegomya hyoscyami* (Panz.).
Opius fulvicollis Thomson, 1895. Opusc. Ent. 20: 2181. ♂ ♀.
Opius cupidus Gahan, 1919. Ent. Soc. Wash. Proc. 21: 162. ♀.
Biology: Bremer and Kaufman, 1928. Arbeit. Biol. Reichs. f. Land-und Forstw. 16: 526–533.
Economics: Kaufman, 1937. Ztschr. f. Pflanzenkrank. 47: 75–85.

gahani Muesebeck. Md., Va., Mich., Ill., Man.
Opius fuscipennis Gahan, 1915. U. S. Natl. Mus. Proc. 49: 70, 79. ♀ ♂. Preocc.
Opius gahani Muesebeck, 1931. U. S. Natl. Mus. Proc. 79 (16): 11. New name.

gracillariae Gahan. Mo. (Kirkwood). Host: *Porphyrosela desmodiella* (Clem.)
Bracon gracillariae Ashmead MS, 1890. U. S. Dept. Agr. Insect Life 2: 349.
Opius gracillariae Gahan, 1915. U. S. Natl. Mus. Proc. 49: 72, 90. ♀.

hydrelliae Muesebeck. Oreg., Calif. Host: *Hydrellia griseola* var. *scapularis* Loew.
Opius hydrelliae Muesebeck, 1933. Ent. Soc. Wash. Proc. 35: 197. ♀.

hyoscyamiellus Viereck. Que. Host: *Pegomya hyoscyami* (Panz.).
Opius (Chilotrichia) hyoscyamiellus Viereck, 1925. Canad. Ent. 57: 278. ♂.

ilicis Nixon. B. C.; Europe (introduced). Host: *Phytomyza ilicis* (Curt.).

Opius ilicis Nixon, 1939. Ent. Monthly Mag. 75: 80. ♀ ♂.
Biology, morphology, and economics: Cameron, 1941. Parasitology 31: 8–39.

indotatus (Viereck). Kans. (Douglas Co.).
Biosteres indotatus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 273. ♂.

kukakensis (Ashmead). Alaska, Colo.
Desmoistoma kukakense Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 251. ♀ ♂.

lectoides Gahan. Oreg. (Corvallis). Hosts: *Rhagoletis symphoricarpi* Curr.; *R. pomonella* (Walsh).
Opius lectoides Gahan, 1930. U. S. Natl. Mus. Proc. 77 (8): 2. ♀ ♂.

lectus Gahan. Maine, N. Y. Host: *Rhagoletis pomonella* (Walsh).
Opius lectus Gahan, 1919. Ent. Soc. Wash. Proc. 21: 167. ♀ ♂.

lemnaphilae Muesebeck. N. Y. (Ithaca). Host: *Lemnaphila scotlandae* Cress.
Opius lemnaphilae Muesebeck, 1939. Ent. Soc. Wash. Proc. 41: 59. ♀ ♂.

luteiceps Viereck. Kans.
Opius luteiceps Viereck, 1905. Kans. Acad. Sci. Trans. 19: 271. ♂.

mandibularis Gahan. N. Y., D. C., La. Hosts: *Phytomyza chrysanthemi* (Kowarz); *Paregle radicum* (L.).
Opius mandibularis Gahan, 1915. U. S. Natl. Mus. Proc. 49: 70, 81. ♀ ♂.

melleus Gahan. Maine, N. H., N. Y., Fla. Hosts: *Rhagoletis pomonella* (Walsh); *R. mendax* Curr.
Opius melleus Gahan, 1915. U. S. Natl. Mus. Proc. 49: 69, 73. ♀.
Biosteres rhagoletis Richmond, 1915. Canad. Ent. 47: 294. ♀ ♂.
Biology: Lathrop and Newton, 1933. Jour. Agr. Res. 46: 143–160.

montanus (Ashmead). Colo., Calif.
Adelura montana Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 19. ♀.

nanus Provancher. Calif.
Opius nanus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 382. ♂ ♀.

nigrocastaneus Viereck. Kans. (Douglas Co.).
Opius nigrocastaneus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 272. ♂.

oscinidis (Ashmead). D. C., Ind. Hosts: *Oscinis* sp.; *Phytomyza plantaginis* R. D.
Rhyssalus oscinidis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 630. ♂.

otiosus Gahan. Tex. (Brownsville). Host: *Agromyza parvicornis* Loew.
Opius otiosus Gahan, 1917. U. S. Natl. Mus. Proc. 53: 202. ♀ ♂.

ovalis (Provancher), n. comb. Que.
Rhitigaster ovalis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 146. ♀.

pegomyiae Gahan. Calif., Utah, Idaho. Host: *Pegomya hyoscyami* (Panz.).
Opius pegomyiae Gahan, 1917. U. S. Natl. Mus. Proc. 53: 201. ♀ ♂.

pequodorum Viereck. Conn. (West Haven).
Opius (Hypolabis) pequodorum Viereck, 1917 (1916). Conn. State Geol. and Natl. Hist. Survey Bul. 22: 183. ♀.

politus Provancher. Canada, N. Y., Mich.
Opius politus Provancher, 1883. Nat. Canad. 14: 16. ♂.

provancheri Dalla Torre. Ont., N. Y., Mich., Ill.
Opius ruficeps Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 124. ♀. Preocc.
Opius provancheri Dalla Torre, 1898. Cat. Hym., v. 4, p. 64. N. name.

quebecensis (Provancher). Que., Maine, N. Y. Hosts: *Pegomya calyptrata* (Zett.); *Scaptomyza adusta* (Loew.)
Rhitigaster quebecensis Provancher, 1881. Nat. Canad. 12: 201. ♀ ♂.

richmondi Gahan. Maine. Host: *Rhagoletis pomonella* (Walsh).
Opius richmondi Gahan, 1919. Ent. Soc. Wash. Proc. 21: 165. ♀ ♂.

rosicola Muesebeck. Minn., Wis., Ill. Host: *Rhagoletis alternata* (Fall.).
Opius rosicola Muesebeck, 1950 (1949). Canad. Ent. 81: 254. ♀ ♂.

rufocinctus Gahan. Ill. (Algonquin).
Opius rufocinctus Gahan, 1915. U. S. Natl. Mus. Proc. 49: 71, 84. ♀.

sanguineus (Ashmead). Md., D. C., Ga., Fla., Mo., Tex. Hosts: *Zonosemata electa* (Say); *Zonosema vitigera* Coq.
?Phaedrotoma sanguinea Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 655. ♂ ♀.

secundus (Viereck). Kans. (Douglas Co.).
Diachasma secunda Viereck, 1905. Kans. Acad. Sci. Trans. 19: 273. ♀.

spinaciae Thomson. Maine, N. Y., Idaho. Host: *Pegomya hyoscyami* (Panz.).
Opius spinaciae Thomson, 1895. Opusc. Ent. 20: 2200. ♂.
Economics: Kaufman, 1937. Ztschr. f. Pflanzenkrank. 47: 75–85.

striativentris Gahan. N. Y., R. I., Md., Va. Host: *Phytomyza ilicis* (Curt.).
Opius striativentris Gahan, 1915. U. S. Natl. Mus. Proc. 49: 72, 89. ♀ ♂.

succineus Gahan. N. Y., Mich., Ind., Ill., S. Dak. Hosts: *Agromyza parvicornis* Loew; *A. pusilla* Meig.; *A.* sp.
Opius succineus Gahan, 1913. Canad. Ent. 45: 149. ♀ ♂.

suturalis Gahan. Utah, Nev., Ariz., Calif. Hosts: *Agromyza pusilla* Meig.; *A. scutellata* Fall.
Opius suturalis Gahan, 1913. Canad. Ent. 45: 146. ♂.

tibialis (Ashmead). Conn., W. Va. Host: *Agromyza melampyga* Loew.
Adelura tibialis Ashmead, 1893. Canad. Ent. 25: 79. ♂.

turneri Gahan. Va., Miss.
Opius turneri Gahan, 1919. Ent. Soc. Wash. Proc. 21: 163. ♀ ♂.

utahensis Gahan. Ohio, Tenn., Iowa, S. Dak., Utah. Host: *Agromyza parvicornis* Loew.
Opius utahensis Gahan, 1913. Canad. Ent. 45: 145. ♀ ♂.

Unrecognized Species in Opius Wesmael

Trigonospilus hopkinsi Ashmead, 1901. U. S. Natl. Mus. Proc. 23: 134.

Subfamily BRACONINAE

This and the following subfamilies make up the cyclostomine division of the Braconidae. The species of this section are characterized by the presence of a circuliform impression between the clypeus, which is arched or strongly emarginate, and the mandibles.

Genus VIPIO Latreille

Vipio Latreille, 1804. Nouv. Dict. Hist. Nat. 24: 173.
Type: ***Ichneumon desertor*** Fabricius. Desig. by Foerster, 1862.
Glyptomorpha Holmgren, 1868. Eug. Resa II, Zool. I, Ins., p. 427.
Type: ***Glyptomorpha ferruginea*** Holmgren. Monob.
Pseudovipio Szépligeti, 1896. Termes. Füzetek 19: 167, 230.
Type: ***Bracon inscriptor*** Nees. Desig. by Viereck, 1914.
Euvipio Szépligeti, 1904. *In* Wytsman, Gen. Ins., v. 22, pp. 11, 14. N. syn.
Type: ***Euvipio rufa*** Szépligeti. Monob.
Zavipio Viereck, 1914. U. S. Natl. Mus. Bul. 83: 156. N. syn.
Type: ***Vipio marshalli*** Schmiedeknecht. Monob. and orig. desig.

belfragei (Cresson), n. comb. Tex.
Bracon Belfragei Cresson, 1872. Amer. Ent. Soc. Trans. 4: 186. ♀.

coloradensis Ashmead. Colo., N. Mex.
Vipio coloradensis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 611. ♀.

croceus (Cresson), n. comb. "Colo. Terr."
Bracon croceus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 302. ♀.

erythrus Viereck. Ariz. (Bill Williams Fork).
Vipio erythrus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 284. ♂.

moneilemae Gahan. Utah; Mex. Host: *Moneilema* sp.
Vipio moneilemae Gahan, 1930. U. S. Natl. Mus. Proc. 77 (8): 3. ♀ ♂.

piceipectus Viereck. Kans., Idaho, Oreg.
Vipio piceipectus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 269. ♀.

rugator (Say), n. comb. N. J. to Ga. west to Wis., Kans. and Tex.; Mexico. Host: *Pyrausta ainsliei* Heinr.
Bracon rugator Say, 1836. Boston Jour. Nat. Hist. 1: 251. ♀.
Bracon mavoritus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 186. ♀. N. syn.
Bracon novitus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 186. ♂. N. syn.

sanguineus (Provancher), n. comb. Calif. (Los Angeles).
Bracon sanguineus Porvancher, 1888. Addit. Corr. Faune Ent. Canada Hym. p. 372. ♀.

schwarzii (Ashmead), n. comb. Ga., Iowa.
Bracon Schwarzii Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 615. ♀.

texanus (Cresson), n. comb. Tex.
Bracon texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 187. ♀.

uniformis (Cresson), n. comb. "Colo. Terr."
Bracon uniformis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 302. ♀.

Genus IPHIAULAX Foerster

Iphiaulax Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 234.
Type: *Bracon impostor* Scopoli. Monob. and orig. desig.
Ipobracon Dalla Torre, 1898. Cat. Hym., v. 4, p. 296.
Type: *Bracon nigrator* Zetterstedt. Present desig.
Digonogastra Viereck, 1912. U. S. Natl. Mus. Proc. 42: 621. N. syn.
Type: *Bracon epicus* Cresson. Monob. and orig. desig.
Monogonogastra Viereck, 1912. U. S. Natl. Mus. Proc. 42: 625.
Type: *Bracon atripectus* Ashmead. Monob. and orig. desig.
Iphiaulacidea Fahringer, 1926. Opusc. Bracon., v. 1, p. 189.
Type: *Bracon impostor* Scopoli. Present desig.

agrili (Ashmead), n. comb. Que. to Ga., west to S. Dak., and Colo. Host: *Agrilus* sp.
Bracon agrili Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 612. ♀ ♂.

americanus Provancher. Que. (Ste. Gertrude).
Iphiaulax americanus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 371. ♀.

atripectus (Ashmead), n. comb. Calif. (Folsom).
Bracon atripectus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 614. ♀.

augustus Viereck. Conn. (North Haven).
Iphiaulax (Monogonogastra) augustus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 210. ♀.

cinnabarinus Viereck. Ariz. (Bill Williams Fork).
Iphiaulax cinnabarinus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 286. ♀.

epicus (Cresson), n. comb. Ark., Tex., Ariz.
Bracon epicus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 183. ♀.

erythrogaster (Brullé), n. comb. No. Amer.
Bracon erythrogaster Brullé, 1846. *In* Lepeletier, Hist. Nat. Ins. Hym., v. 4, p. 401. ♀.

eurygaster (Brullé). Maine, Conn., Pa., N. J.
Bracon eurygaster Brullé, 1846. *In* Lepeletier, Hist. Nat. Ins. Hym., v. 4, p. 400. ♀.

faustus (Cresson), n. comb. Kans., Tex., Ariz. Hosts: *Ataxia* sp.; *A. hubbardi* Fish.
Bracon faustus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 185. ♀.

koebelei (Ashmead), n. comb. Calif. (Alameda Co.).
Bracon Koebelei Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 613. ♂.

manteri Nettleton. Fla. (Gainesville).
Iphiaulax manteri Nettleton, 1938. Ent. Soc. Amer. Ann. 31: 15. ♀ ♂.

melanogaster Viereck. Kans. (Douglas Co.).
Iphiaulax melanogaster Viereck, 1905. Kans. Acad. Sci. Trans. 19: 270. ♀.

militaris Viereck. Kans. (Douglas Co.).
Iphiaulax militaris Viereck, 1905. Kans. Acad. Sci. Trans. 19: 269. ♀.

orbita (Brullé), n. comb. No. Amer.
Bracon orbita Brullé, 1846. *In* Lepeletier, Hist. Nat. Ins. Hym., v. 4, p. 399. ♀.

ornatus (Provancher). Canada.
Bracon ornatus Provancher, 1880. Nat. Canad. 12: 141. ♂ ♀.
Iphiaulax decoratus (!) Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 371.

palliventris (Cresson), n. comb. "Colo. Terr."
Bracon palliventris Cresson, 1865. Ent. Soc. Phila. Proc. 4: 301. ♀.
Bracon pallidiventris Dalla Torre, 1898. Cat. Hym., v. 4, p. 282. Emend.

perepicus Viereck. Ariz. (Bill Williams Fork).
Iphiaulax perepicus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 285. ♀.

propinquus Viereck. Ariz. (Oak Creek Canyon).
Iphiaulax propinquus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 286. ♀.

rugiceps (Cresson), n. comb. Tex.
Bracon rugiceps Cresson, 1872. Amer. Ent. Soc. Trans. 4: 184. ♀.

Genus ATANYCOLIMORPHA Viereck

Atanycolimorpha Viereck, 1913. U. S. Natl. Mus. Proc. 44: 557.
Type: *Atanycolimorpha winnemanae* Viereck. Monob. and orig. desig.

alaskensis (Ashmead), n. comb. Alaska (Fort Yukon).
Bracon alaskensis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 615. ♀.

croceiventris (Cresson), n. comb. "Colo. Terr."
Bracon croceiventris Cresson, 1865. Ent. Soc. Phila. Proc. 4: 301. ♂.

dissitus (Cresson), n. comb. Colo., Tex., S. Dak., Ga.
Bracon dissitus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 300. ♀.
Bracon orbitalis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 184. ♂ ♀. N. syn.

montanensis (Ashmead), n. comb. Mont.
Bracon montanensis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 615. ♀.

provancheri (Dalla Torre), n. comb. Que., Conn., N. Y., N. J., Md.
Bracon inquisitor Provancher, 1880. Nat. Canad. 12: 138. ♀. Preocc.
Bracon Provancheri Dalla Torre, 1898. Cat. Hym., v. 4, p. 285. N. name.
Atanycolimorpha winnemanae Viereck, 1913. U. S. Natl. Mus. Proc. 44: 557. ♀. N. syn.

Genus CYANOPTERUS Haliday

Cyanopterus Haliday, 1835. Ent. Mag. 3: 22.
Type: *Ichneumon flavator* Fabricius. Monob.
Bracambus Szépligeti, 1896. Termes. Füzetek 19: 168.
Type: *Ichneumon flavator* Fabricius. Monob.
Coeloidimorpha Viereck, 1913. U. S. Natl. Mus. Proc. 44: 558. N. syn.
Type: *Bracon (Melanobracon) webbi* Viereck. Monob. and orig. desig.

laevis (Provancher), n. comb. Que., Mich., Miss.
Bracon laevis Provancher, 1880. Nat. Canad. 12: 137, 138. ♀.
Bracon (Melanobracon) webbi Viereck, 1909. U. S. Dept. Agr. Bur. Ent. Bul 58: 54. ♀. N. syn.

Genus COMPSOBRACON Ashmead

Compsobracon Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 138.
Type: ***Exothecus magnificus*** Ashmead. Monob. and orig. desig.
Macroneura Szépligeti, 1906. Mus. Nat. Hungarici Ann. 4: 550, 581. N. syn.
Type: ***Iphiaulax mirabilis*** Szépligeti. Desig. by Viereck, 1914.

magnificus (Ashmead). Tex. (Columbus).
Exothecus magnificus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 624. ♀.

Genus COELOIDES Wesmael

Coeloides Wesmael, 1838. Nouv. Mem. Acad. Sci. Bruxelles 11: 59.
Type: ***Coeloides scolyticida*** Wesmael. Desig. by Shenefelt, 1943.
Syntomomelus Kokujew, 1902. Rev. Russe d' Ent. 3: 163.
Type: ***Syntomomelus rossicus*** Kokujew. Monob.
Coeloidina Viereck, 1921. U. S. Natl. Mus. Proc. 59: 133.
Type: ***Coeloides melanotus*** Wesmael. Monob. and orig. desig.
Cerobracon Viereck, 1926. Canad. Ent. 58 (3): 54. N. syn.
Type: ***Bracon secundus*** Dalla Torre. Orig. desig.
Habrobraconidea Viereck, 1912. U. S. Natl. Mus. Proc. 43: 578.
Type: ***Habrobraconidea bicoloripes*** Viereck. Monob. and orig. desig.
Biology: Russo, 1938. R. Lab. Ent. Agr. Portici Bol. 2: 260–272.

brunneri Viereck. Mont., Wash., Calif. Hosts: *Scolytus ventralis* Lec.; *Dendroctonus pseudotsugae* Hopk.
Coeloides brunneri Viereck, 1911. U. S. Natl. Mus. Proc. 41: 293. ♀ ♂.

crocator (Kirby), n. comb. No. Amer. "lat. 65°."
Bracon crocator Kirby, 1837. Fauna Bor-Amer., v. 4, p. 261. ♀.

dendroctoni Cushman. B. C. to Calif. east to Mont. and Utah.; Que. Hosts: *Dendroctonus monticolae* Hopk.; *D. piceaperda* Hopk.; *Ips oregonis* (Eichh.); *I. perturbatus* (Eichh.); *I. emarginatus* (Lec.); *I. vancouveri* Sw.; *Orthotomicus caelatus* (Eichh.).
Coeloides dendroctoni Cushman, 1931. Wash. Acad. Sci. Jour. 21: 303. ♀ ♂.
Biology: De Leon, 1935. Ent. Soc. Amer. Ann. 28: 411–424.
Morphology: De Leon, 1934. N. Y. Ent. Soc. Jour. 42: 297–[317].

pissodis (Ashmead). Maine to Miss.; Minn. Host: *Pissodes strobi* (Peck).
Bracon pissodis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 617. ♀.
Habrobraconidea bicoloripes Viereck, 1912. U. S. Natl. Mus. Proc. 43: 579. ♀.
Biology: Taylor, 1929. Ent. Amer. 10: 22–26.

promontorii (Dalla Torre), n. comb. Canada, N. H.
Bracon striatus Provancher, 1880. Nat. Canad. 12: 137, 140. ♂. Preocc.
Bracon promontorii Dalla Torre, 1898. Cat. Hym., v. 4, p. 285. N. name.

rufovariegatus (Provancher), n. comb. Canada.
Bracon rufovariegatus Provancher, 1880. Nat. Canad. 12: 137, 142. ♂ ♀.

scolyti Cushman. Wash., Oreg., Calif., Colo. Hosts: *Scolytus* spp.; *S. ventralis* Lec.
Coeloides scolyti Cushman, 1931. Wash. Acad. Sci. Jour. 21: 303. ♀ ♂.

scolytivorus (Cresson). Que., to N. C., west to Mo. Hosts: *Scolytus quadrispinosus* Say; *Neoclytus acuminatus* (F.).
Bracon scolytivorus Cresson, 1873. *In* Riley, Ins. Mo., Ann. Rpt. 5: 106. ♀ ♂.
Bracon longicaudus Provancher, 1880. Nat. Canad. 12: 137, 142. ♂ ♀. Preocc. N. syn.
Bracon Canadensis Dalla Torre, 1898. Cat. Hym., v. 4, p. 261. N. name. N. syn.

secundus (Dalla Torre), n. comb. Que., N. H.
Bracon nigripes Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 121. ♀ ♂. Preocc.
Bracon secundus Dalla Torre, 1898. Cat. Hym., v. 4, p. 288. N. name.

vancouverensis (Dalla Torre). B. C. (Vancouver Isl.).
Bracon striatus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 432. ♂. Preocc.
Bracon Vancouverensis Dalla Torre, 1898. Cat. Hym., v. 4, p. 293. N. name.

Genus ATANYCOLUS Foerster

Atanycolus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 238.
Type: *Ichneumon denigrator* Linneaus. Monob. and orig. desig.
Coelobracon Dalla Torre, 1898. Cat. Hym., v. 4, p. 295.
Type: *Ichneumon denigrator* Linnaeus. Present desig.
Melanobracon Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 138.
Type: *Bracon simplex* Cresson. Monob. and orig. desig.
Atanycolidea Viereck, 1912. U. S. Natl. Mus. Proc. 42: 617.
Type: *Bracon rugosiventris* Ashmead. Monob. and orig. desig.
Revision: Shenefelt, 1943. Wash. State Col. Res. Studies 11: 51–163.

anocomidis Cushman. Que. to Pa., west to B. C. and Calif.; Tex. Hosts: *Semanotus ligneus* (F.); *Acanthocinus* sp.; *Melanophila drummondi* (Kby.); *Buprestis maculativentris* Say.
Atanycolus anocomidis Cushman, 1931. U. S. Natl. Mus. Proc. 79 (14): 14. ♀ ♂.

arcasuturalis Shenefelt. N. H.
Atanycolus arcasuturalis Shenefelt, 1943. Wash. State Col. Res. Studies 11: 72, 121. ♀.

calophrys Shenefelt. Man., Utah.
Atanycolus calophrys Shenefelt, 1943. Wash. State Col. Res. Studies 11: 66, 95. ♀ ♂.

charus (Riley). Que. to Ga. west to Alta. and Tex. Host: *Chrysobothris femorata* (Oliv.).
Bracon charus Riley, 1875. Ins. Mo. Ann. Rpt. 7: 75. ♀.

cosmosifrons Shenefelt. Mass. to Ga., west to Colo. and Tex. Hosts: *Stenocorus lineatus* (Oliv.); *Graphisurus* sp.
Atanycolus cosmosifrons Shenefelt, 1943. Wash. State Col. Res. Studies 11: 67, 72, 111.

crassicruris Shenefelt. Mass., Fla., Minn., Iowa, Kans., Tex., Ariz.
Atanycolus crassicruris Shenefelt, 1943. Wash. State Col. Res. Studies 11: 75, 124. ♀.

cryptaspis Shenefelt. Conn., N. Y., N. J., S. C.
Atanycolus cryptaspis Shenefelt, 1943. Wash. State Col. Res. Studies 11: 67, 103. ♀ ♂.

dichrous (Brullé), n. comb. No. Amer.
Bracon dichrous Brullé, 1846. *In* Lepeletier, Hist. Nat. Ins. Hym., v. 4, p. 398. ♀.

disputabilis (Cresson). Colo.
Bracon disputabilis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 300. ♀.

femoratae Shenefelt. Ariz. (Sabino Canyon). Host: *Chrysobothris femorata* (Oliv.).
Atanycolus femoratae Shenefelt, 1943. Wash. State Col. Res. Studies 11: 68, 139. ♀ ♂.

fuscorbitalis Shenefelt. Maine, N. Y.
Atanycolus fuscorbitalis Shenefelt, 1943. Wash. State. Col. Res. Studies 11: 66, 87. ♀ ♂.

hicoriae Shenefelt. N. Y. (Syracuse).
Atanycolus hicoriae Shenefelt, 1943. Wash. State Col. Res. Studies 11: 68, 129. ♀ ♂.

impressifrons Shenefelt. N. Y. to N. C. west to Ariz. and Calif. Host: *Megacyllene* sp.
Atanycolus impressifrons Shenefelt, 1943. Wash. State Col. Res. Studies 11: 67, 101. ♀ ♂.

latabdominalis Shenefelt. "Ill."

Atanycolus latabdominalis Shenefelt, 1943. Wash. State Col. Res. Studies 11: 72, 119. ♀.

lineola (Brullé), n. comb. "Carolina".
Bracon lineola Brullé, 1846. *In* Lepeletier, Hist. Nat. Ins. Hym., v. 4, p. 397. ♀.

lissogastrus Shenefelt. Ont., N. Y.
Atanycolus lissogastrus Shenefelt, 1943. Wash. State Col. Res. Studies 11: 71, 92. ♀.

longicauda Shenefelt. Que., N. Y., Wis., Minn.
Atanycolus longicauda Shenefelt, 1943. Wash. State Col. Res. Studies 11: 66, 85. ♀ ♂.

longifemoralis Shenefelt. B. C. to Calif. east to Mont. and Nev. Hosts: *Melanophila drummondi* (Kby.); *M. gentilis* Lec.; *Hylotrupes* sp.
Atanycolus longifemoralis Shenefelt, 1943. Wash. State Col. Res. Studies 11: 65, 76. ♀ ♂.

malii Shenefelt. Oreg., Calif., Colo. Host: *Chrysobothris malii* Horn.
Atanycolus malii Shenefelt, 1943. Wash. State Col. Res. Studies 11: 68, 136. ♀ ♂.

megophthalmus Shenefelt. Idaho (Coolin).
Atanycolus megophthalmus Shenefelt, 1943. Wash. State Col. Res. Studies 11: 66, 80. ♀ ♂.

melanophili Shenefelt. Wis. (Neopit). Host: *Melanophila fulvoguttata* (Harr.).
Atanycolus melanophili Shenefelt, 1943. Wash. State Col. Res. Studies 11: 66, 81. ♀ ♂.

microcellus Shenefelt. Ont. (Waubamic).
Atanycolus microcellus Shenefelt, 1943. Wash. State Col. Res. Studies 11: 66, 89. ♀ ♂.

microstigmatus Shenefelt. Wis. (Sawyer Co.).
Atanycolus microstigmatus Shenefelt, 1943. Wash. State Col. Res. Studies 11: 71, 93. ♀.

montivagus (Cresson). Nebr., Colo., N. Mex.
Bracon montivagus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 299. ♀ ♂.

nigropyga Shenefelt. Va., ?Mich., Minn., Nebr.
Atanycolus nigropyga Shenefelt, 1943. Wash. State Col. Res. Studies 11: 71, 90. ♀.

niteofrons Shenefelt. Minn.
Atanycolus niteofrons Shenefelt, 1932. Wash. State Col. Res. Studies 11: 66, 84. ♀ ♂.

obliquus (Provancher), n. comb. Canada.
Bracon olbiquus Provancher, 1880. Nat. Canad. 12: 137, 141. ♀.

octocolae Shenefelt. Ariz., Calif. Host: *Chrysobothris octocola* Lec.
Atanycolus octocolae Shenefelt, 1943. Wash. State Col. Res. Studies 11: 68, 127. ♀ ♂.

parvacavus Shenefelt. Oreg. (Antelope Mt., Harney Co.).
Atanycolus parvacavus Shenefelt, 1943. Wash. State Col. Res. Studies 11: 72, 109. ♀.

phaeostethus Shenefelt. "Tex."; "Va."
Atanycolus phaeostethus Shenefelt, 1943. Wash. State Col. Res. Studies 11: 66, 83. ♂.

pilosiventris Shenefelt. Que. to Ga.; Man.
Atanycolus pilosiventris Shenefelt, 1943. Wash. State Col. Res. Studies 11: 69, 131. ♀ ♂.

rugosiventris (Ashmead). Mass. to N. C. west to Minn. and Tex.; Colo., Ariz. Host: *Chrysobothris femorata* (Oliv).
Bracon rugosiventris Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 613. ♀ ♂.
Atanycolidea apicalis Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 533. "♀"=♂; ♂.

Atanycolus rugiventris (!) Blackman and Stage, 1924. N. Y. State Col. Forestry, Syracuse Univ., Tech. Pub. 17: 161.

simplex (Cresson). "Canada," U. S. and Mexico. Hosts: *Stenocorus lineatus* (Oliv.); *Saperda discoidea* F.; *S. tridentata* Oliv.; *Phymatodes aereus* (Newm.); *Xylotrechus nauticus* (Mann.); *X.* sp.; *Agrilus bilineatus* (Web.); *Chrysobothris* sp.
Bracon simplex Cresson, 1872. Amer. Ent. Soc. Trans. 4: 184. ♀.

tranquebaricae Shenefelt. Fla. (Miami Beach). Host: *Chrysobothris tranquebarica* (Gmel.).
Atanycolus tranquebaricae Shenefelt, 1943. Wash. State Col. Res. Studies 11: 68, 134. ♀ ♂.

triangulifera (Viereck). Ariz. (nr. Flagstaff).
Iphiaulax triangulifera Viereck, 1907. Amer. Ent. Soc. Trans. 33: 384. ♀.

ulmicola (Viereck). Que. to Fla. west to Minn. and Ariz. Hosts: *Saperda tridentata* Oliv.; *S. discoidea* F.
Melanobracon ulmicola Viereck, 1906. Amer. Ent. Soc. Trans. 32: 176. ♀ ♂.

Biology: Kaston, 1937. Conn. Agr. Expt. Sta. Bul. 396: 355–358.

Genus BRACON Fabricius

Bracon Fabricius, 1804. Systema Piezatorum, p. 102.
Type: ***Ichneumon minutator*** Fabricius. Desig. by Int. Comn. Zool. Nomencl. Op. 162, 1945.
Braco Wesmael, 1838. Nouv. Mem. Acad. Sci. Bruxelles 11: 7. Emend.
Microbracon Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 15.
Type: ***Microbracon sulcifrons*** Ashmead. Monob.
Habrobracon Johnson, 1895. Ent. News 6: 324.
Type: ***Bracon gelechiae*** Ashmead. Desig. by Viereck, 1914.
Macrodyctium Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 138.
Type: ***Bracon euurae*** Ashmead. Monob. and orig. desig.
Tropidobracon Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 139.
Type: ***Bracon gastroideae*** Ashmead. Monob. and orig. desig.

Revision: Muesebeck, 1925. U. S. Natl. Mus. Proc. 67 (8): 1–85.

aequalis Provancher. Canada.
Bracon aequalis Provancher, 1880. Nat. Canad. 12: 137, 141. ♀.

americanus (Ashmead), n. comb. Que., Iowa, Idaho; Mexico.
Trachyusa americana Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 18. ♂.

analcidis Ashmead. Ky., Tenn., Iowa, Mo., Ark. Host: *Tyloderma fragariae* (Riley).
Bracon analcidis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 619. ♀.

angelesius Provancher. Calif. Hosts: *Euura* sp. on *Salix;* itonidid gall on *Mimulus.*
Bracon angelesius Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 372. ♀.
Bracon cecidomyiae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 616. ♀.
Bracon euurae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 621. ♀.

apicatus Provancher. Ont., ?Maine, ?N. Y.
Bracon apicatus Provancher, 1880. Nat. Canad. 12: 137, 143. ♀.

argutator Say. Ind., Iowa, Mo. Host: *Saluria* sp.
Bracon argutator Say, 1836. Boston Jour. Nat. Hist. 1: 253. ♀.

atricollis Ashmead. Mass., Conn., Del., Va., Ohio, Mich., Ill., Mo., S. Dak., Wash.
Bracon atricollis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 622. ♀.
Microbracon nawaasorum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 205, 207.

auripes Provancher. Ont., Mass., N. Y., Ohio.
Bracon auripes Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 372. ♀.

bembeciae (Walley), n. comb. B. C., Oreg., Wash. Host: *Bembecia marginata* (Harr.).

Microbracon bembeciae Walley, 1932. Canad. Ent. 64: 186. ♀.

brachyurus Ashmead. Ont., Tenn.
Bracon brachyurus Ashmead, 1891. Canad. Ent. 23: 1. ♀.

canadensis (Ashmead), n. comb. Ont.
Opius Canadensis Ashmead, 1891. Canad. Ent. 23: 4. ♂.

caulicola (Gahan), n. comb. Mass. to N. C., west to Kans. Hosts: *Pyrausta ainsliei* Heinr.; *P. penitalis* (Grote); *P. nubilalis* (Hbn.).
Microbracon caulicola Gahan, 1922. U. S. Natl. Mus. Proc. 61: 2. ♀ ♂.

cephi (Gahan), n. comb. Southwest. Canada, Minn., Iowa, N. Dak., Mont. Host: *Cephus cinctus* Nort.
Microbracon cephi Gahan, 1918. Ent. Soc. Wash. Proc. 20: 19. ♀ ♂.

cerambycidiphagus (Muesebeck), n. comb. Pa., Wis. Hosts: *Oberea* sp.; *O. tripunctata* (Swed.).
Microbracon cerambycidiphagus Muesebeck, 1925. U. S. Natl. Mus. Proc. 67 (8): 16, 76. ♀ ♂.

cinctus (Provancher), n. comb. Canada.
Phylax cinctus Provancher, 1880. Nat. Canad. 12: 175. ♂.

connecticutorum (Viereck), n. comb. Conn. (New Haven).
Microbracon connecticutorum Viereck, 1917 (1916). Conn. State. Geol. and Nat. Hist. Survey Bul. 22: 205, 209.

cookii Ashmead. Mich. (Lansing).
Bracon Cookii Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 624. ♂.

cryptorhynchi (Muesebeck), n. comb. Mass. (Melrose Highlands). Host: *Cryptorhynchus lapathi* (L.).
Microbracon cryptorhynchi Muesebeck, 1931. U. S. Natl. Mus. Proc. 79 (16): 16. ♀ ♂.

curtus (Provancher), n. comb. Ont.
Phylax curtus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 130. ♀ ♂.

cushmani (Muesebeck), n. comb. Pa. to Fla. to Colo. and Tex.; Ariz., Calif.; Virgin Isl., West Indies: Hosts: *Psorosina hammondi* (Riley); *Mineola nubulella* (Riley); *M. indiginella* (Zell.); *Mesocondyla gastralis* (Guen); *Grapholitha prunivora* (Walsh); *Choristoneura fumiferana* (Clem); *Desmia funeralis* (Hbn.); *Acrobasis hebecella* Hulst; *A. caryivorella* Rag.; *A. caryae* Grote.
Habrobracon variabilis Cushman, 1914. Ent. Soc. Wash. Proc. 16: 103. ♀ ♂. Preocc.
Microbracon cushmani Muesebeck, 1925. U. S. Natl. Mus. Proc. 67 (8): 8, 29. N. name.

erucarum (Cushman), n. comb. Utah, Colo., Ariz., Idaho, Oreg. Hosts: *Euxoa* sp.; *Barbara colfaxiana taxifoliella* (Busck).
Habrobracon erucarum Cushman, 1920. U. S. Natl. Mus. Proc. 58: 291. ♀ ♂.

furtivus Fyles. Que. to N. C., west to Iowa. Hosts: *Gnorimoschema gallaesolidaginis* (Riley); *G. gallaeasteriella* (Kell.).
Bracon furtivus Fyles, 1892. Canad. Ent. 24: 35. ♀.
Bracon fungicola Ashmead, 1894. Cincinnati Soc. Nat. Hist. Jour. 17: 46. ♀.

gastroideae Ashmead. Ont., Mass. Ohio, Mich., Ill., Minn., Iowa, Colo., Calif. Host: *Gastroidea cyanea* Melsh.
Bracon gastroideae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 617. ♂.

gelechiae Ashmead. All U. S. Hosts: *Gelechia* sp.; *Chionodes hibiscella* (Busck); *Gnorimoschema cinerella* (Murtf.); *G. operculella* (Zell.); *Psorosina hammondi* (Riley); *Pyrausta nubilalis* (Hbn.); *Grapholitha molesta* (Busck); *Papaipema* sp. in pinks; *Desmia funeralis* (Hbn.); *Polychrosis viteana* (Clem.); *Archips argyrospila* (Wlkr.); *Rhyacionia frustrana bushnelli* (Busck); *Ancylis comptana fragariae* (W. and R.); *Cnephasia longana* (Haw.); *Psilocorsis quercicella* Clem.; *Coleophora malivorella* Riley; *Sparganothis sulphurana* (F.); *Epiblema strenuana* (Wlkr.).
Bracon gelechiae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 623. ♂ ♀.

Bracon notaticeps Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 624.
Habrobracon johannseni Viereck, 1912. U. S. Natl. Mus. Proc. 42: 622. ♀.
Habrobracon tetralophae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 623. ♀.
Habrobracon diversicolor Viereck, 1921. Ent. News 32: 174. ♀. N. syn.

gemmaecola (Cushman), n. comb. Mass., Conn., Va., Nebr., Ariz. Hosts: *Rhyacionia frustrana* (Comst.); *R. frustrana bushnelli* Busck; *R. neomexicana* (Dyar); *R. buoliana* (Schiff.).
Microbracon gemmaecola Cushman, 1927. Jour. Agr. Res. 34: 740. ♀ ♂.

geraei (Muesebeck), n. comb. N. J., Iowa, S. Dak., Ariz. Hosts: *Geraeus* sp.; *Trichobaris* sp.
Microbracon geraei Muesebeck, 1925. U. S. Natl. Mus. Proc. 67 (8): 16, 74. ♀ ♂.

gracilis (Provancher), n. comb. Que. (Cap Rouge).
Phylax gracilis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., pp. 130, 131. ♂.

hebetor Say. All of U. S. Cosmopolitan. Hosts: *Ephestia kuehniella* Zell.; *E. elutella* (Hbn.); *E. cautella* (Wlkr.); *Vitula edmansi* (Pack.); *Galleria mellonell* (L.); *Plodia interpunctella* (Hbn.); *Sitotroga cerealella* (Oliv.); *Moodna* s
Bracon hebetor Say, 1836. Boston Jour. Nat. Hist. 1: 252. ♀ ♂.
Bracon dorsator Say, 1836. Boston Jour. Nat. Hist. 1: 253. ♀ ♂.
Bracon juglandis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 621. ♂.
Habrobracon beneficientior Viereck, 1911. U. S. Natl. Mus. Proc. 40: 182. ♀ ♂.
Bracon breviantennatus de Stefani, 1919. Inform. R. R. Osserv. Fitopatol. e Intorno ad Alcuni Ins. Dannosi alle Derr. Aliment., Min. Agr. (Palermo, Italy), p. 44. ♀ ♂.
Habrobracon pectinophorae Watanabe, 1935. Ins. Mats. 10: 44. ♀ ♂. N. syn.
Genetics: Martin, 1947. Introduct. Genetics *Habrobracon juglandis* Ashm., 205 pp.
Biology: Payne, 1933. Biol. Bul. 65: 187–205.—Payne, 1934. Ecol. Monog. 4: 1–46.—Glover and Chatterjee, 1936. Indian Acad. Sci. 3: 195–211.—Harries, 1937. Ohio Jour. Sci. 37: 165–171.—Soliman, 1940. Soc. Fouad 1er d'Ent. Bul. 24: 215–247.—Soliman, 1941. Soc. Fouad 1er d'Ent. Bul. 25: [1]–[97].
Morphology: Schlüter, 1933. Ztschr. f. Morph. u. Ökol. der Tiere 27 (3): 488–517.—Bender, 1943. Amer. Ent. Soc. Ann. 36: 537–545.

helianthi (Muesebeck), n. comb. Tex., Fla. Host: *Isophrictis* sp.
Microbracon helianthi Muesebeck, 1926. U. S. Natl. Mus. Proc. 69 (7): 1. ♀ ♂.

hemimenae (Rohwer), n. comb. Md. (Plummers Isl.). Host: *Hemimene plummeriana* (Busck).
Microbracon hemimenae Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 232. ♀.

hobomok (Viereck), n. comb. Conn.
Microbracon hobomok Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 206, 208.

hyslopi (Viereck), n. comb. Wash., Oreg., Calif., Idaho, Colo. Hosts: *Etiella zinckenella schisticolor* Zell.; *Hypera nigrirostris* (F.).
Microbracon hyslopi Viereck, 1912. U. S. Natl. Mus. Proc. 42: 142. ♀.

juncicola Ashmead. Ont. to Fla., west to Utah. Hosts: ?*Coleophora* sp.; *Keiferia glochinella* (Zell.); *K. lycopersicella* (Busck); *Etiella zinckenella schisticolor* Zell.; *Coleophora laricella* (Hbn.); *C. alniella* Heinr.
Bracon juncicola Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 620. ♀.
Bracon melanaspis Ashmead, 1891. Canad. Ent. 23: 1. ♀. N. syn.
Microbracon sebequanash Viereck, 1917 (1916). Conn. Geol. and Nat. Hist. Survey Bul. 22: 204, 206. ♀.

konkapoti (Viereck), n. comb. Conn. (West Thompson).
Microbracon konkapoti Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 205, 207.

laemosacci (Muesebeck), n. comb. Ariz. (Superstition Mts.). Host: *Laemosaccus* sp. in *Thurberia*.

Microbracon laemosacci Muesebeck, 1925. U. S. Natl. Mus. Proc. 67 (8): 13, 56. ♀ ♂.

laspeyresiae (Walley), n. comb. Ont., Ga. Host: *Laspeyresia caryana* (Fitch).
Microbracon laspeyresiae Walley, 1935. Canad. Ent. 67: 58. ♀ ♂.

lutus Provancher. Canada to Va., west to Iowa. Hosts: *Lixus scrobicollis* Boh.; *Achatodes zeae* (Harr.); *Papaipema nebris* (Guen.); *P. lysimachiae* Bird; *Archanara oblonga* (Grote); *Epiblema scudderiana* (Clem.).
Bracon lutus Provancher, 1880. Nat. Canad. 12: 137, 142. ♀.
Bracon lixi Ashmead, 1893. Canad. Ent. 25: 67. ♀.

mellitor Say. U. S.; Hawaii, Mexico Hosts: *Anthonomus grandis* Boh,; *A. signatus* Say; *A. albopilosus* Dietz; *A. eugenii* Cano; *A. fulvus* Lec.; *A. squamosus* Lec.; *Polychrosis viteana* (Clem.); *Pectinophora gossypiella* (Saund.); *Desmoris scapalis* Lec.; *D. constrictus* Say; *Hypera nigrirostris* (F.); *Mompha stellella* Busck; *Frumenta nundinella* (Zell.); *Stibadium spumosum* Grote; *Homeosoma electellum* (Hulst).
Bracon mellitor Say, 1836. Boston Jour. Nat. Hist. 1: 256. ♂.
Bracon xanthostigma Cresson, 1865. Ent. Soc. Phila. Proc. 4: 303. ♀.
Bracon vernoniae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 619. ♀ (♂ misdet.).
Bracon anthonomi Ashmead, 1893. U. S. Dept. Agr. Insect Life 5: 185. ♂.
Microbracon pembertoni Bridwell, 1919 (1918). Hawaii. Ent. Soc. Proc. 4: 115. ♀ ♂.
Biology: Folsom, 1936. Jour. Econ. Ent. 29: 111–116.

meromyzae Gahan. Md., Ohio, Iowa, Kans., S. Dak., Utah. Host: *Meromyza americana* Fitch.
Bracon (Tropidobracon) meromyzae Gahan, 1913. U. S. Natl. Mus. Proc. 46: 432. ♀ ♂.

metacomet (Viereck), n. comb. Conn. (New Canaan).
Microbracon metacomet Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 206, 208. ♀.

montowesi (Viereck), n. comb. Maine, Conn., N. J. Hosts: *Caulocampus acericaulis* (MacG.); *Paraclemensia acerfoliella* (Fitch); *Anchylopera platana* Clem.
Microbracon montowesi Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 206, 208. ♀ ♂.

nanus Provancher. Canada, Ind., Iowa.
Bracon nanus Provancher, 1880. Nat. Canad. 12: 138, 143. ♀ ♂.

nevadensis Ashmead. Oreg., Calif., Idaho. Hosts: *Chrysobothris deleta* Lec.; *Ramosia bibionipennis* (Bdvl.).
Bracon nevadensis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 623. ♀.

niger (Provancher), n. comb. Que. (Cap Rouge).
Opius niger Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 381. ♀.

nigridorsum Ashmead. Ont., Mich., S. Dak.
Bracon nigridorsum Ashmead, 1891. Canad. Ent. 23: 2. ♀.

nigropectus Provancher. Canada, Vt., Mass., Ohio, Iowa.
Bracon nigropectus Provancher, 1880. Nat. Canad. 12: 137, 143. ♀.

nitidulus Dalle Torre. Canada, Maine, Idaho. Host: *Pissodes* sp.
Bracon nitidus Provancher, 1883. Nat. Canad. 14: 16. ♂ ♀. Preocc.
Bracon nitidulus Dalla Torre, 1898. Cat. Hym., v. 4, p. 280. N. name.

nuperus Cresson. U. S. except New England; Mexico. Hosts: ?*Orthoris crotchii* Lec.; *Homoeosoma electellum* (Hulst); *Isophrictis* sp.; *Polychrosis rhoisfructana* Kearf.; ?*Neaspilota achilleae* Johns.
Bracon nuperus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 187. ♀.
Bracon minimus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 187. ♂ ♀.
Bracon politus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 373. ♂.

oenotherae (Muesebeck), n. comb. Mass., N. J., Md., Va., Ga., Ohio, Tenn. Host: *Mompha eloisella* (Clem.).

Microbracon oenotherae Muesebeck, 1925. U. S. Natl. Mus. Proc. 67 (8): 14, 62. ♀ ♂.

papaipemae (Gahan), n. comb. N. Y. (Rye). Host: *Papaipema frigida* Smith.
Microbracon papaipemae Gahan, 1922. U. S. Natl. Mus. Proc. 61: 4. ♀.

pascuensis Shenefelt. Mich., Kans.
Bracon pascuensis Shenefelt, 1944. Kans. Ent. Soc. Jour. 17: 74. ♀ ♂.

piceiceps Viereck. Kans. (Douglas Co.).
Bracon piceiceps Viereck, 1905. Kans. Acad. Sci. Trans. 19: 268. ♂.

pini (Muesebeck), n. comb. Maine to Pa.; Mich., Wash., Oreg. Hosts: *Pissodes strobi* (Peck); *Cylindrocopturus longulus* (Lec.).
Microbracon pini Muesebeck, 1925. U. S. Natl. Mus. Proc. 67 (8): 12, 52. ♀ ♂.
Biology: Taylor, 1929. Ent. Amer. 10: 1–12.

pityophthori (Muesebeck), n. comb. N. Mex. (Las Vegas). Host: *Pityophthorus* sp.
Microbracon pityophthori Muesebeck, 1925. U. S. Natl. Mus. Proc. 67 (8): 13, 55. ♀.

platynotae (Cushman), n. comb. Calif., Tex., La., Ga.; Mexico. Hosts: *Platynota* sp.; *Pectinophora gossypiella* (Saund.); *Lineodes interrupta* (Zell.); *Pachyzancla periusalis* (Wlkr.).
Habrobracon platynotae Cushman, 1914. Ent. Soc. Wash. Proc. 16: 104. ♀ ♂.

podunkorum (Viereck), n. comb. Conn., Ohio, Mo. Host: *Aristotelia absconditella* (Wlkr.).
Microbracon podunkorum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 205, 207.

politiventris (Cushman). Ont. to Va., west to Oreg. and Colo.; La. Hosts: *Polychrosis viteana* (Clem.); *Archips rosaceana* (Harr.); *A. parallela* (Rob.) *or Pandemis lamprosana* (Rob.); *Grapholitha molesta* (Busck); *Rhyacionia buoliana* (Schiff.); *Choristoneura fumiferana* (Clem.); *Argyrotaenia velutinana* (Wlkr.).
Habrobracon politiventris Cushman, 1919. U. S. Natl. Mus. Proc. 55: 517. ♀.

psilocorsi (Viereck), n. comb. Md., Tex. Hosts: *Cryptolechia* sp.; *Arogalea cristifasciella* (Chamb.).
Microbracon psilocorsi Viereck, 1912. U. S. Natl. Mus. Proc. 42: 143. ♀ ♂.

punctatus (Muesebeck), n. comb. N. Y., Fla., N. C., Iowa, La. Hosts: ?*Listronotus oregonensis* Lec.; *Cylas formicarius elegantulus* (Sum.).
Microbracon punctatus Muesebeck, 1925. U. S. Natl. Mus. Proc. 67 (8): 7, 24. ♀.

pygmaeus Provancher. Southeast. Canada, U. S. Hosts: *Coleophora leucochrysella* Clem.; *C. volckei* Heinr.; *C. pruniella* Clem.; *C. malivorella* Riley; *C. laricella* (Hbn.); *C. innotabilis* Braun; *Argyrotaenia citrana* (Fern.).
Bracon pygmaeus Provancher, 1880. Nat. Canad. 12: 138, 144. ♀ ♂.
Bracon junci Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 619. ♂ ♀.
Bracon trifolii Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 622. ♂.
Bracon kansensis Viereck, 1905. Kans. Acad. Sci. Trans. 19: 268. ♀.
Microbracon coleophorae Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 231. ♀ ♂.
Microbracon massasoit Viereck, 1917 (1916). Conn. Geol. and Nat. Hist. Survey Bul. 22: 205, 207.
Biology: Doner, 1934. Ent. Soc. Amer. Ann. 27: 435–442.

pyralidiphagus (Muesebeck), n. comb. N. J., Md., Ga., La.
Microbracon pyralidiphagus Muesebeck, 1925. U. S. Natl. Mus. Proc. 67 (8): 9, 34. ♀.

quinnipiacorum (Viereck), n. comb. Conn., N. J., Md., Va., Fla., Ind., Tenn., Iowa.
Microbracon quinnipiacorum Viereck, 1917 (1916). Conn. State. Geol. and Nat. Hist. Survey Bul. 22: 205, 207.

rhyacioniae (Muesebeck), n. comb. S. Dak., Nebr., Idaho, Calif. Hosts: *Rhya-*

cionia sp. on *Pinus ponderosa*; *R. frustrana* (Comst.); *R. frustrana bushnelli* (Busck); *R. neomexicana* (Dyar); *Barbara colfaxiana* (Kearf.).
Microbracon rhyacioniae Muesebeck, 1931. U. S. Natl. Mus. Proc. 79 (16): 15. ♀ ♂.

rhyssomati Ashmead, emend. Ohio (Wooster). Host: *Rhyssomatus lineaticollis* (Say).
Bracon rhyssemati Ashmead, 1894. Cincinnati Soc. Nat. Hist. Jour. 17: 46. ♂.

rudbeckiae (Muesebeck), n. comb. Iowa, N. Dak., Tex., N. Mex.
Microbracon **rudbeckiae** Muesebeck, 1925. U. S. Natl. Mus. Proc. 67(8): 11, 45. ♀ ♂.

rufomarginatus Ashmead. W. Va. (Morgantown).
Bracon rufomarginatus Ashmead, 1893. Canad. Ent. 25: 68. ♀.

sanninoideae (Gahan), n. comb. Ont. to Ga., west to Ill., Kans. and Ark. Hosts: *Sanninoidea exitiosa* (Say); *Ramosia rhododendri* (Beut.).
Microbracon sanninoideae Gahan, 1917. U. S. Natl. Mus. Proc. 53: 196. ♀ ♂.

scanticorum (Viereck), n. comb. Conn., Ill.
Microbracon scanticorum Viereck, 1917 (1916). Conn. Geol. and Nat. Hist. Survey Bul. 22: 205, 207.

sesiae (Muesebeck), n. comb. Conn., N. Y. Host: *Ramosia tipuliformis* (Clerck).
Microbracon sesiae Muesebeck, 1925. U. S. Natl. Mus. Proc. 67 (8): 12, 53. ♀ ♂.

sphenophori (Muesebeck), n. comb. Mo. (Charleston). Host: *Calendra callosa* (Oliv.).
Microbracon sphenophori Muesebeck, 1925. U. S. Natl. Mus. Proc. 67 (8): 7, 25. ♀ ♂.

sulcifrons (Ashmead), n. comb. Colo. (Smith's Park Gulch).
Microbracon sulcifrons Ashmead. 1890. Colo. Biol. Assoc. Bul. 1: 15. ♂.

tachypteri (Muesebeck), n. comb. N. Y., W. Va., Wis., Kans., Colo. Hosts: *Tachypterellus quadrigibbus* (Say); *T. quadrigibbus magnus* List; *T. consors cerasi* List.
Microbracon tachypteri Muesebeck, 1925. U. S. Natl. Mus. Proc. 67 (8): 15, 68. ♀.

tenuiceps (Muesebeck), n. comb. Que., Maine, Va., Ont., Ind., Ill., Iowa, Nev., Wash. Host: *Hypera nigrirostris* (F.).
Microbracon tenuiceps Muesebeck, 1925. U. S. Natl. Mus. Proc. 67 (8): 11, 46. ♀.

tenuis Muesebeck and Walkley, n. name. Alaska (Kukak Bay).
Macrodyctium politum Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 252. ♀. Preocc.
Microbracon ashmeadi Muesebeck, 1925. U. S. Natl. Mus. Proc. 67 (8): 11, 42. N. name. Preocc. by Morrison, 1917.

terebella Wesmael. Europe; N. Y., Pa., Ohio. Host: *Cephus cinctus* Nort.
Braco terebella Wesmael, 1838. Nouv. Mem. Acad. Sci. Bruxelles 11: 57. ♀.
Biology: Salt, 1931. Bul. Ent. Res. 22: 527–534.

thurberiphagae (Muesebeck), n. comb. Ariz., Tex. Host: *Thurberiphaga diffusa* (Barnes).
Microbracon thurberiphagae Muesebeck, 1925. U. S. Natl. Mus. Proc. 67 (8): 12, 54. ♀ ♂.

tychii (Muesebeck), n. comb. Calif. (Los Angeles Co.). Hosts: *Tychius semisquamosus* Lec.; *Etiella zinckenella schisticolor* Zell.
Microbracon tychii Muesebeck, 1925. U. S. Natl. Mus. Proc. 67 (8): 12, 51. ♀ ♂.

uncas (Viereck), n. comb. Conn. (New Haven).
Microbracon uncas Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 206, 208.

variabilis (Provancher), n. comb. Que. to Va., west to Mo. and Tex. Hosts: *Polychrosis viteana* (Clem.); *Conotrachelus nenuphar* (Hbst.); *Tachyp-*

terellus quadrigibbus (Say); *T. quadrigibbus magnus* List; *Blastodacna* sp.
Opius variabilis Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 382. ♂.
Bracon tortricicola Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 621. ♀.

wawequa (Viereck), n. comb. Conn. (New Haven).
Microbracon wawequa Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 204, 206.

xanthonotus Ashmead. Wash. to Calif., east to Colo. and N. Mex.; also Minn., N. H., Va. Hosts: *Hemerocampa oslari* Barnes; *H. vetusta* (Bdvl.); *Malacosoma pluviale* (Dyar); *M. constrictum* Stretch; *M. fragile* Stretch; *Sabulodes* sp.
Bracon xanthonotus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 618. ♀ ♂.
Bracon (Habrobracon) hopkinsi Viereck, 1910. U. S. Natl. Mus. Proc. 38: 380. ♀ ♂.
Habrobracon mali Viereck, 1913. U. S. Natl. Mus. Proc. 44: 641. ♀ ♂.
Biology: McKenzie, 1935. Calif. Agr. Expt. Sta. Bul. 592: 20–21.

Subfamily SPATHIINAE

The Nearctic species are largely unstudied and undescribed. Apparently all are external parasites of coleopterous larvae.

Genus SPATHIUS Nees

Spathius Nees, 1818. Nov. Act. Acad. Caes. Leop. Car. 9: 301.
Type: ***Cryptus clavatus*** Panzer. Monob.
Stenophasmus Smith, 1859. Linn. Soc. London Jour., Zool. 3 (12): 169.
Type: ***Stenophasmus ruficeps*** Smith. Monob.
Euspathius Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 236. Emend.
Rhacospathius Cameron, 1905. Spolia Zeylanica 3: 86.
Type: ***Rhacospathius striolatus*** Cameron. Monob.

brachyurus Ashmead. R. I., Va., W. Va., Tenn. Host: *Dryocoetes americanus* Hopk.
Spathius brevicaudus Hopkins, 1892. U. S. Dept. Agr. Insect Life 4: 258. *Nom. nud.*
Spathius brachyurus Ashmead, 1893. Canad. Ent. 25: 71, 73. ♀.

brunneri Viereck. Wash., Mont., Colo. Host: *Pissodes* sp.
Spathius brunneri Viereck, 1912. U. S. Natl. Mus. Proc. 42: 627. ♀.

brunneus Ashmead. W. Va.
Spathius brunneus Ashmead, 1893. Canad. Ent. 25: 72. ♀.

californicus Ashmead. Calif. (Santa Cruz Mts.).
Spathius Californicus Ashmead, 1893. Canad. Ent. 25: 70. ♂.

canadensis Ashmead. Que., Ont., Mass., Conn., N. Y., N. J., N. C. Hosts: *Hylurgopinus rufipes* (Eichh.); *Dendroctonus frontalis* Zimm.
Spathius Canadensis Ashmead, 1891. Canad. Ent. 23: 2. ♀.

claripennis Ashmead. N. H., W. Va. Host: *Polygraphus rufipennis* (Kby).
Spathius clavipennis (!) Hopkins, 1892. U. S. Dept. Agr. Insect Life 4: 257. *Nom. nud.*
Spathius claripennis Ashmead, 1893. Canad. Ent. 30: 70, 72. ♂.

dignus Muesebeck and Walkley, n. name. Ont. (Ottawa).
Rhopalophorus fasciatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 129. ♀. Preocc. by Walker, 1874.

floridanus Ashmead. N. C., Ga., Fla. Host: *Chrysobothris femorata* (Oliv.).
Spathius floridanus Ashmead, 1893. Canad. Ent. 25: 71. ♀.

honestor (Say). Ind.
Bracon honestor Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 78. ♀.

laflammei Provancher. Canada.
Spathius Laflammei Provancher, 1880. Nat. Canad. 12: 164. ♀.

longipetiolatus Ashmead. Fla. (Jacksonville).
Spathius longipetiolatus Ashmead, 1893. Canad. Ent. 25: 70. ♂.

pallidus Ashmead. W. Va., N. C. Hosts: *Ips grandicollis* (Eichh.); *Dendroctonus frontalis* Zimm.
Spathius pallidus Ashmead, 1893. Canad. Ent. 25: 72, 74. ♀.

sequoiae Ashmead. Calif., Wash. Hosts: *Phloeosinus punctatus* Lec.; *P. sequoiae* Hopk.
Spathius sequoiae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 625. ♀.

simillimus Ashmead. Maine, Pa., W. Va. Hosts: *Agrilus bilineatus* (Web.); *A. anxius* Gory.
Spathius simillimus Ashmead, 1893. Canad. Ent. 25: 70, 73. ♂ ♀.

tomici Ashmead. Ont., Maine, W. Va., N. C. Hosts: *Phloeosinus dentatus* (Say); *P. canadensis* Sw.
Spathius tomici Ashmead, 1893. Canad. Ent. 25: 71. ♀ ♂.

trifasciatus Riley. N. Y., Pa., N. C., W. Va., Mo. Host: *Scolytus quadrispinosus* Say.
Spathius trifasciatus Riley, 1873. Ins. Mo. Ann. Rpt. 5: 106. ♀ ♂.
Spathius unifasciatus Ashmead, 1893. Canad. Ent. 25: 70, 72. ♀. N. syn.

Subfamily ROGADINAE

Mostly parasites of Lepidoptera. The Nearctic species are badly in need of revision.

Tribe ROGADINI

Genus ROGAS Nees

Rogas Nees, 1818. Nov. Act. Acad. Caes. Leop. Car. 9: 306.
Type: *Ichneumon testaceus* Fabricius. Desig. by Curtis, 1834.
Aleiodes Wesmael, 1838. Nouv. Mem. Acad. Sci. Bruxelles 11: 94.
Type: *Aleiodes heterogaster* Wesmael. Desig. by Viereck, 1914.
Schizoides Wesmael, 1838. Nouv. Mem. Acad. Sci. Bruxelles 11: 94 (footnote).
Type: *Aleiodes heterogaster* Wesmael. Autob.
Heterogamus Wesmael, 1838. Nouv. Mem. Acad. Sci. Bruxelles 11: 120.
Type: *Aleiodes (Heterogamus) crypticornis* Wesmael. Monob.
Rhogas Agassiz, 1846. Nomencl. Zool., Index Univ., p. 325. Emend.
Nebartha Walker, 1860. Ann. Mag. Nat. Hist. (3) 5: 310.
Type: *Nebartha macropodides* Walker. Monob.

abdominalis (Cresson). Que., N. Y., Pa., Ohio, Mich., Ill., Iowa, S. Dak.
Aleiodes abdominalis Cresson, 1869. Amer. Ent. Soc. Trans. 2: [377,] 379. ♀.
Aleiodes lectus Cresson, 1869. Amer. Ent. Soc. Trans. 2: [377], 379. ♂. N. syn.

aciculatus (Cresson). N. Y., Pa., Md., D. C., Fla., Iowa, S. Dak., Colo., Utah.
Aleiodes aciculatus Cresson, 1869. Amer. Ent. Soc. Trans. 2: [377], 381. ♀ ♂.

atricornis Cresson. Kans., S. Dak., Tex., Ariz. Host: *Protoleucania* sp.
Rogas atricornis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 188. ♀.

autographae Viereck. Wash., Oreg. Host: *Autographa californica* (Speyer).
Rhogas autographae Viereck, 1910. U. S. Natl. Mus. Proc. 38: 381. ♀ ♂.

burrus (Cresson). Conn., Ill.; Mexico. Hosts: *Acronicta hasta* Guen.; *A. lobeliae* Guen.
Aleiodes burrus Cresson, 1869. Amer. Ent. Soc. Trans. 2: [377], 381. ♀ ♂.

carinatus (Ashmead), n. comb. Tex.
Rhysipolis carinatus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 625. ♂.

cerurae Ashmead. Calif. Host: *Cerura* sp.
Rhogas cerurae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 634. ♀ ♂.

cockerelli Viereck. Kans. (Douglas Co.).
Rhogas cockerelli Viereck, 1905. Kans. Acad. Sci. Trans. 19: 266. ♂.

femoratus (Cresson). W. Va.
Aleiodes femoratus Cresson, 1869. Amer. Ent. Soc. Trans. 2: [378], 382. ♀.

fulvus (Cresson). Canada.
Aleiodes fulvus Cresson, 1869. Amer. Ent. Soc. Trans. 2: [377], 381. ♀ ♂.

fumipennis (Cresson). Mass., Conn., Del., Mich., Ill., Miss., Mo., Iowa. Host: *Cressonia juglandis* (A. and S.).
Aleiodes fumipennis Cresson, 1869. Amer. Ent. Soc. Trans. 2: [377], 378. ♀.

geometrae Ashmead. Iowa, Mo., S. Dak.
Rhogas geometrae Ashmead, 1889 (1888). U. S. Natl.. Mus. Proc. 11: 633. ♂.

granulatus DeGant. Ohio (Cleveland). Host: ?*Trichoplusia ni* (Hbn.).
Rogas granulata DeGant, 1930. Ent. Soc. Wash. Proc. 32: 163. ♀.

graphicus Cresson. Kans., Tex., Ariz.
Rogas graphicus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 188. ♂.

harrimani Ashmead. Alaska (Fox Point).
Rhogas harrimani Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 253. ♂.

hyphantriae Gahan. N. B., Maine. Host: *Hyphantria cunea* (Drury).
Rogas hyphantriae Gahan, 1922. U. S. Natl. Mus. Proc. 61 (24): 1. ♀ ♂. Morphology; Dustan, 1922. Acadian Ent. Soc. Proc. 8: 84–89.

indianensis Muesebeck and Walkley, n. name. Ind.
Bracon rugulosus Say, 1836. Boston Jour. Nat. Hist. 1: 255. Preocc. by Nees, 1812 (1811).

laphygmae Viereck. Ga., La., Tex. Host: *Laphygma frugiperda* (A. and S.).
Rogas laphygmae Viereck, 1912. U. S. Natl. Mus. Proc. 43: 581. ♀.

mandibularis Cresson. Ga., Iowa, Tex.
Rogas mandibularis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 188. ♂.

melleus (Cresson). Mass.
Aleiodes melleus Cresson, 1869. Amer. Ent. Soc. Trans. 2: [378], 382. ♂.

molestus Cresson. La., Tex., S. Dak., Utah. Hosts: *Autographa* sp.; *Pseudoplusia rogationis* (Guen.).
Rogas molestus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 188. ♀.

nigricoxis Viereck. N. Mex. (Beulah).
Rhogas nigricoxis Viereck, 1903. Amer. Ent. Soc. Trans. 29: 97. ♂.

nolophanae Ashmead. Md., Ohio, Tenn., Wis., Miss., La., Kans., Mo. Hosts: *Balsa malana* Fitch; *Plathypena scabra* (F.).
Rhogas nolophanae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 634. ♀.

parasiticus (Norton). New England west Colo.; Que., Ont.
Aleiodes parasiticus Norton, 1869. Amer. Ent. Soc. Trans. 2: 327. ♀.

perplexus Gahan. Ariz., N. Mex., Tex. Hosts: *Peridroma margaritosa* (Haw.); *Heliothis armigera* (Hbn.).
Rogas perplexus Gahan, 1917. U. S. Natl. Mus. Proc. 53: 205. ♀ ♂.

platypterygis Ashmead. Va., La., Iowa, Mo. Host: *Drepana arcuata* Wlkr.
Rhogas platypterygis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 633. ♂ ♀.

politiceps Gahan. N. C. to Fla., west to Tex. Hosts: *Anicla infecta* (Ochs.); *Cirphis unipuncta* (Haw.).
Rogas politiceps Gahan, 1917. U. S. Natl. Mus. Proc. 53: 206. ♀ ♂.

pubescens Ashmead. Wis.
Rhogas pubescens Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 632. ♂.

quebecensis Provancher. Que., Ind., S. Dak.
Rogas Quebecensis Provancher, 1880. Nat. Canad. 12: 145. ♀.

rileyi (Cresson). N. J., Del., Ohio, Mo., Kans.
Aleiodes Rileyi Cresson, 1869. Amer. Ent. Soc. Trans. 2: 378, 382. ♀ ♂.

rufocoxalis Gahan. Colo., Ariz., Calif. Hosts: *Trichoplusia ni* (Hbn.); *Peridroma margaritosa* (Haw.); *Autoplusia egena* (Guen.).

Rogas rufocoxalis Gahan, 1917. U. S. Natl. Mus. Proc. 53: 207. ♀ ♂.

sancti-hyacinthi Provancher. Que. (St. Hyacinthe).
Rogas Sancti-Hyacinthi Provancher, 1880. Nat. Canad. 12: 146. ♀.

scrutator (Say). North. half of U. S. and south. Canada. Hosts: *Ichthyura inclusa* Hbn.; *Choreutis augustella* Clarke.
Bracon scrutator Say, 1836. Boston Jour. Nat. Hist. 1: 254. ♀ ♂.
Aleiodes Canadensis Cresson, 1869. Amer. Ent. Soc. Trans. 2: [377], 380. ♀. N. syn.

simillimus Ashmead. N. H. (Holderness).
Rhogas simillimus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 633. ♂.

stigmator (Say). "North-west Terr."; north. U. S. and Canada. Hosts: *Acronicta dactylina* (Grote); *A. oblinita* (A. and S.); *A. hastulifera* (A. and S.); *A. americana* Harr.; *Simyra henrici* Grote; *S. albovenosa* (Goeze), *Malacosoma americanum* (F.).
Bracon stigmator Say, 1824. *In* Keating, Narr. Long's 2nd Exped. 2: App. p. 323.
Aleiodes intermedius Cresson, 1869. Amer. Ent. Soc. Trans. 2: [377], 380. ♂ ♀. N. syn.

terminalis (Cresson). U. S., Canada. Hosts: *Cirphis unipuncta* (Haw.); *Nephelodes emmedonia* form *violans* Guen.; *Laphygma frugiperda* (A. and S.).
Aleiodes terminalis Cresson, 1869. Amer. Ent. Soc. Trans. 2: [377], 379. ♂ ♀.
Biology: Pennington, 1916. Jour. Econ. Ent.: 401–406.

texanus (Cresson). Mich., Tex.
Aleiodes Texanus Cresson, 1869. Amer. Ent. Soc. Trans. 2: [377], 378. ♀.

waldeni (Viereck), n. comb. Conn. (Stonington).
Aleiodes waldeni Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 235, 236. ♂.

Genus PELECYSTOMA Wesmael

Pelecystoma Wesmael, 1838. Nouv. Mem. Acad. Sci. Bruxelles 11: 91.
Type: ***Rogas luteus*** Nees. Desig. by Foerster, 1862.

discoideum (Cresson), n. comb. D. C., N. J., Ill.
Aleiodes discoideus Cresson, 1869. Amer. Ent. Soc. Trans. 2: [377], 380. ♀.

eupoeyae Ashmead. Fla. (Miami). Host: *Alarodia slossoniae* (Pack.).
Pelecystoma eupoeyiae (!) Ashmead, 1897. Canad. Ent. 29: 113. ♀.

harrisinae (Ashmead), n. comb. Pa., Va., Fla. Host: *Harrisina americana* (Guér.).
Rhogas harrisinae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 632. ♂.

Genus PETALODES Wesmael

Petalodes Wesmael, 1838. Nouv. Mem. Acad. Sci. Bruxelles 11: 123.
Type: ***Petalodes unicolor*** Wesmael. Monob.
Taxonomy: Walley, 1941. Canad. Ent. 73: 213–215.

palmatus Walley. B. C. (Canim Lake).
Petalodes palmatus Walley, 1941. Canad. Ent. 73: 214. ♀.

ufei Walley. B. C., Calif. Host: *Ufeus plicatus* Grote.
Petalodes ufei Walley, 1941. Canad. Ent. 73: 215. ♀ ♂.

Genus TETRASPHAEROPYX Ashmead

Tetrasphaeropyx Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 634.
Type: ***Rogas pilosus*** Cresson. Monob.

pilosus (Cresson). Fla., Tex.; Mexico.
Rogas pilosus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 189. ♀.

Genus YELICONES Cameron

Yelicones Cameron, 1887. Biol. Cent.-Amer., Hym. 1, p. 387.
Type: ***Yelicones violaceipennis*** Cameron. Desig. by Viereck, 1914.
Rhopalotoma Cameron, 1911. Timehri 1: 318.
Type: ***Rhopalotoma crassitarsis*** Cameron. Monob.

delicatus (Cresson). N. Y. to Fla., west to Kans. and Tex. Host: *Psorosina hammondi* (Riley).
Rogas delicatus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 189. ♂.

Genus BUCCULATRIPLEX Viereck

Bucculatriplex Viereck, 1912. U. S. Natl. Mus. Proc. 43: 577.
Type: ***Bracon bucculatricis*** Ashmead. Monob. and orig. desig.

bucculatricis (Ashmead). Maine to D. C.; Minn., S. Dak. Hosts: *Bucculatrix* sp. on oak; *B. canadensisella* (Chamb.); *Cameraria hamadryadella* (Clem.).
Bracon bucculatricis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 618. ♂.
Bucculatriplex secundus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 765. ♀. N. syn.

Genus POLYSTENIDEA Viereck

Polystenidea Viereck, 1911. U. S. Natl. Mus. Proc. 40: 186.
Type: ***Polystenidea parksi*** Viereck. Orig. desig.

metacomet Viereck. Conn. (New Haven).
Polystenidea metacomet Viereck, 1911. U. S. Natl. Mus. Proc. 40: 187. ♀.
Polystenidea metacomet Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 238. ♀.

parksi Viereck. Ill., Kans.
Polystenidea parksi Viereck, 1911. U. S. Natl. Mus. Proc. 40: 186. ♂.

Genus ONCOPHANES Foerster

Oncophanes Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 241.
Type: ***Exothecus minutus*** Wesmael. Monob. and orig. desig.
Epirhyssalus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 142.
Type: ***Epirhyssalus californicus*** Ashmead, 1900. Monob. and orig. desig.
Revision: Muesebeck, 1935. Ent. Soc. Amer. Ann. 28: 241–246.

americanus (Weed). Que. to Va., west to Iowa; Oreg. Hosts: *Archips rosaceana* (Harr.); *A. cerasivorana* (Fitch); *Amorbia humerosana* Clem.; *Ancylis comptana fragariae* (W. and R.); *Argyrotaenia velutinana* (Wlkr.); *Filatima persicaeella* (Murtf.); *Aroga trialbamaculella* (Chamb.); *Gracilaria* sp.; *Hedia cyanana* (Murtf.); *Sparganothis flavibasana* Fern.; *S. sulphurana* (F.); *Platynota idaeusalis* (Wlkr.); *Acleris minuta* (Rob.); *Psilicorsis* sp.
Clinocentrus americanus Weed, 1887. Ill. State Lab. Nat. Hist. Bul. 3: 43. ♀ ♂.
Rhyssalus atriceps Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 628. ♀ ♂.
Rhyssalus similis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 628. ♂.
Rhyssalus loxoteniae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 628. ♂ ♀.

betulae Muesebeck. Maine. Host: ?*Phyllotoma nemorata* Fall.
Oncophanes betulae Muesebeck, 1935. Ent. Soc. Amer. Ann. 28: 242, 245. ♀.

californicus (Ashmead). Calif. (Santa Cruz Mts.).
Epirhyssalus californicas (!) Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 142. ♀.

nigriventris Muesebeck. Md., Mich., Iowa.
Oncophanes nigriventris Muesebeck, 1935. Ent. Soc. Amer. Ann. 28: 243. ♀.

Genus CLINOCENTRUS Haliday

Clinocentrus Haliday, 1833. Ent. Mag. 1: 266.
Type: ***Clinocentrus umbratilis*** Haliday. Monob.
Neorhyssalus Baker, 1917. Philippine Jour. Sci. 12: 282, 286.
Type: ***Neorhyssalus compositus*** Baker. Monob. and orig. desig.

mellipes (Ashmead), n. comb. Ont. (Ottawa).
Rhogas mellipes Ashmead, 1891. Canad. Ent. 23: 3. "♂" = ♀.

tarsalis Ashmead. N. Y., Ohio.
Clinocentrus tarsalis Ashmead, 1894. Cincinnati Soc. Nat. Hist. Jour. 17: 47. ♀.

Genus XENOSTERNUM Muesebeck

Xenosternum Muesebeck, 1935. Ent. Soc. Amer. Ann. 28: 246.
Type: ***Xenosternum ornigis*** Muesebeck. Monob. and orig. desig.

ornigis Muesebeck. Mo., Ark., Kans., Tex. Host: *Ornix* sp.
Xenosternum ornigis Muesebeck, 1935. Ent. Soc. Amer. Ann. 28: 247. ♀ ♂.

Genus AMICOPLIDEA Ashmead

Amicoplidea Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 118.
Type: ***Phylax palliventris*** Provancher. Monob. and orig. desig.

palliventris (Provancher). Canada.
Phylax palliventris Provancher, 1880. Nat. Canad. 12: 174. ♀.
Zele pallidiventris Dalla Torre, 1898. Cat. Hym., v. 4, p. 78. Emend.

Genus COLASTES Haliday

Colastes Haliday, 1833. Ent. Mag. 1: 266.
Type: ***Colastes braconius*** Haliday. Monob.
Exothecus Wesmael, 1838. Nouv. Mem. Acad. Sci. Bruxelles 11: 73. N. syn.
Type: ***Exothecus affinis*** Wesmael. Desig. by Foerster, 1862.

alaskensis (Ashmead), n. comb. Alaska (Popof Isl.).
Exothecus alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 252.

orchesiae (Ashmead), n. comb. Mich. (Grand Ledge). Host: *Orchesia castanea* Melsh.
Rhysipolis orchesiae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 625. ♀.

propinquus (Walley), n. comb. Baffin Isl. (Lake Harbour).
Exothecus propinquus Walley, 1936. Canad. Ent. 68: 190. ♀.

Genus RHYSIPOLIS Foerster

Rhysipolis Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 235.
Type: ***Rogas (Colastes) mediator*** Haliday. Monob. and orig. desig.

pallipes (Provancher), n. comb. Que., Maine. Host: *Gracilaria fraxinella* Ely.
Doryctes pallipes Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 375.
Doryctes pallidipes Dalla Torre, 1898. Cat. Hym., v. 4, p. 234. Emend.

Genus PHANOMERIS Foerster

Phanomeris Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 235.
Type: ***Exothecus abnormis*** Wesmael. Monob. and orig. desig.
Phaenomeris Dalla Torre, 1898. Cat. Hym., v. 4, p. 252. Emend.
Taxonomy: Muesebeck 1932. Ent. Soc. Wash. Proc. 34: 81–83.

borealis Walley. Baffin Isl. (Lake Harbour).
Phanomeris borealis Walley, 1936. Canad. Ent. 68: 188. ♀ ♂.

mellipes (Provancher). Canada.
Opius pallipes Provancher, 1880. Nat. Canad. 12: 164. ♂. Preocc.
Opius mellipes Provancher, 1880. Nat. Canad. 12: 164, footnote.

metalli Muesebeck. N. Y., Va. Host: *Metallus rubi* Forbes.
Phanomeris metalli Muesebeck, 1932. Ent. Soc. Wash. Proc. 34: 82. ♀ ♂.

phyllotomae Muesebeck. Austria; Maine. Hosts: *Phyllotoma nemorata* Fallén; *Fenusa pusilla* (Lep.).
Phanomeris phyllotomae Muesebeck, 1932. Ent. Soc. Wash. Proc. 34: 83. ♀ ♂.

Biology and morphology: Dowden, 1941. U. S. Dept. Agr. Tech. Bul. 757: 11–16.

Genus ZAMEGASPILUS Ashmead

Zamegaspilus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 141.
Type: *Zamegaspilus hopkinsi* Ashmead. Monob. and orig. desig.

hopkinsi Ashmead. Va., W. Va.
Zamegaspilus Hopkinsi Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 141. [♂]
Rhogas melanothorax Viereck, 1905. Kans. Acad. Sci. Trans. 19: 267. ♀. N. syn.

Tribe PAMBOLINI

Genus CHREMYLUS Haliday

Chremylus Haliday, 1833. Ent. Mag. 1: 266.
Type: *Chremylus elaphus* Haliday. Monob.
Penecerus Wesmael, 1838. Nouv. Mem. Acad. Sci. Bruxelles 11: 70.
Type: *Hormius rubiginosus* Nees. Monob.
Paramesocrina Nagamori, 1925. Annot. Zool. Jap. 10: [349].
Type: *Paramesocrina tineavora* Nagamori. Monob.

elaphus Halliday. Conn., N. Y., Fla., Ohio, Mo., S. Dak.; Europe, Japan. Hosts: *Tineola biselliella* Hum.; *Tinea pellionella* (L.); *T. fuscipunctella* (Haw.); ?*Pyralis farinalis* (L.).
Chremylus elaphus Haliday, 1833. Ent. Mag. 1: 266.
Hormius rubiginosus Nees, 1834. Hym. Ichn. Aff. Monog., v. 1, p. 156. ♀.
Bracon transversus Say, 1836. Boston Jour. Nat. Hist. 1: 256. ♀. N. syn.
Chremylus terminalis Ashmead, 1893. Amer. Ent. Soc. Trans. 20: 39. ♀. N. syn.
Chremylus nigriceps Ashmead, 1893. Amer. Ent. Soc. Trans. 20: 40. ♀ ♂. N. syn.
Chremylus japonicus Ashmead, 1906. U. S. Natl. Mus. Proc. 30: 200. ♀. N. syn.
Paramesocrina tineavora Nagamori, 1925. Annot. Zool. Jap. 10: [349]. N. syn.

Biology: Mason, 1948. Ent. Soc. Amer. Ann. 41: 28–40.

Genus PAMBOLUS Haliday

Pambolus Haliday, 1836. Ent. Mag. 4: 40, 49.
Type: *Rogas (Pambolus) biglumis* Haliday. Monob.
Phaenodus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 241. N. syn.
Type: *Phaenodus pallipes* Foerster. Monob. and orig. desig.
Parapambolus Dahl, 1912. Beitr. z. Naturdenkmalpfl. 3: 555. N. syn.
Type: *Parapambolus rufigaster* Dahl. Monob. and orig. desig.

americanus (Ashmead). N. Y. to Fla., west to Kans.
Arraphis americana Ashmead, 1892. Psyche 6: 289. ♂.
Arraphis minuta Ashmead, 1892. Psyche 6: 289. ♂. N. syn.
Phaenodus caddous Viereck, 1908 (1907). Amer. Ent. Soc. Trans. 33: 403. ♀. N. syn.

Tribe HORMIINI

Genus HORMIUS Nees

Hormius Nees, 1818. Nov. Act. Acad. Caes. Leop. Car. 9: 305.
Type: *Bracon moniliatus* Nees. Monob.

albipes Ashmead. Lower Calif.; Ariz.
Hormius albipes Ashmead, 1895. Calif. Acad. Sci. Proc. 5: 544. ♀.

americanus Ashmead. Colo. (West Cliff).
Hormius Americanus Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 16. ♀.

basalis (Provancher). Calif. Host. *Argyrotaenia citrana* (Fern.).
Zele basalis Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 380. ♀.
Biology: Basinger, 1938. Hilgardia 11: 663–664.

completus (Provancher). Que., Md., D. C., Va., Ohio, Ind.
Ephedrus completus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 156. ♀.
Hormius erythrogaster Ashmead, 1893. Amer. Ent. Soc. Trans. 20: 41. ♂.

dispar (Brues), n. comb. N. H., N. Y., D. C.
(?)*Pambolus dispar* Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 110. ♀.

melleus (Ashmead), n. comb. D. C.
Oncophanes melleus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 630. ♀.

moniliatus (Nees). Europe; Greenland.
Bracon moniliatus Nees, 1812 (1811). Mag. Gesell. Naturf. Freunde Berlin 5: 36. ♀.

vulgaris Ashmead. Fla., Mo., Ark. Hosts: *Psorosina hammondi* (Riley); *Tetralopha subcanalis* (Wlkr.).
Hormius vulgaris Ashmead, 1893. Amer. Ent. Soc. Trans. 20: 43. ♂ ♀.

Genus PARAHORMIUS Nixon

Parahormius Nixon, 1940. Ann. Mag. Nat. Hist. (11) 5: [473].
Type: *Parahormius jason* Nixon. Orig. desig.

atriceps (Ashmead), n. comb. Fla. (Jacksonville).
Hormius atriceps Ashmead, 1893. Amer. Ent. Soc. Trans. 20: 42. ♂ ♀.

pallidipes (Ashmead). Md., N. C., Colo., Calif.; Hawaii. Hosts: *Gnorimoschema operculella* (Zell.); *Keiferia lycopersicella* (Busck).
Hormius pallidipes Ashmead, 1893. Amer. Ent. Soc. Trans. 20: 42. ♀.

trilineatus (Ashmead), n. comb. Va. Host: *Coleophora caryaefoliella* Clem.
?Rhyssalus trilineatus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 629. ♂.

Genus NOSERUS Foerster

Noserus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 241.
Type: *Noserus facialis* Foerster. Monob. and orig. desig.

pomifoliellae (Ashmead). ?Mo. Host: *Bucculatrix pomifoliella* Clem.
Bracon pomifoliellae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 620. ♂.

Subfamily DORYCTINAE

Apparently most species are external parasites of coleopterous larvae.

Tribe DORYCTINI

Genus DORYCTES Haliday

Doryctes Haliday, 1836. Ent. Mag. 4: 40, 43.
Type: *Bracon striatellus* Nees. Desig. by Westwood, 1839.
Ischiogonus Wesmael, 1838. Nouv. Mem. Acad. Sci. Bruxelles 11: 125.
Type: *Ischiogonus erythrogaster* Wesmael. Desig. by Viereck, 1914.

apacheus Viereck. Ariz.
Doryctes apacheus Viereck, 1907. Amer. Ent. Soc. Trans. 33: 383. ♂.
Doryctes femur-rubrum Viereck, 1907. Amer. Ent. Soc. Trans. 33: 384. ♀. N. syn.

atripes (Provancher). Que., Maine, Md., W. Va. Host: *Agrilus anxius* Gory.
Syngaster atripes Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 122. ♀.
?Rhysipolis biformis Ashmead, 1893. Canad. Ent. 25: 68. ♀ ♂. N. syn.

atriventris (Cresson), n. comb. Kans., Tex.
Exothecus atriventris Cresson, 1872. Amer. Ent. Soc. Trans. 4: 189. ♀.
Doryctes longicauda Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 626. ♀. Preocc. N. syn.
Doryctes Ashmeadii Dalla Torre, 1898. Cat. Hym., v. 4, p. 232. N. name. N. syn.
Hormiopterus caudatus Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 60, 62. ♀. N. syn.

carinatus (Ashmead), n. comb. Iowa, Mo., Ark., Kans.
Rhyssalus carinatus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 630. ♂.

cingulatus (Provancher). Que., N. H., N. Y., Nev.
Syngaster cingulatus Provancher, 1880. Nat. Canad. 12: 162. ♀.

disjunctus (Cresson). Md., Ga., Mich., Iowa, Kans., Tex.
***Bracon* disjunctus** Cresson, 1872. Amer. Ent. Soc. Trans. 4: 186. ♀.

erythromelas (Brullé). Que., N. C., Ga., Mich., Ill., Miss., Mo., Kans., Tex.
Syngaster erythromelas Brullé, 1846. *In* Lepeletier, Hist. Nat. Ins. Hym., v. 4, p. 458. ♂.
Syngaster rugosus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 122. "♂"=♀. N. syn.

exhalans (Say). Ind.
Bracon exhalans Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 77. ♀.

fartus (Provancher). Que., Va.
Syngaster fartus Provancher, 1880. Nat. Canad. 12: 162, 163. ♀.

incertus Ashmead. Conn., N. Y., D. C.
Doryctes incertus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 627. ♀.

macilentus (Provancher), n. comb. Que.
Syngaster macilentus Provancher, 1880. Nat. Canad. 12: 162, 163. ♀ ♂.
Rhogas rugosulus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 374. ♀. N. syn.

maculipennis Rohwer. Calif., Ariz. Hosts: *Agrilus* sp.; *A. angelicus* Horn; larval mines of *Anthaxia* sp.
Doryctes maculipennis Rohwer, 1919. Ent. Soc. Wash. Proc. 21: 7. ♀ ♂.

mellipes Ashmead. Mo.
Doryctes mellipes Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 627. ♀.

pacificus (Provancher), n. comb. B. C., Wash., Oreg.
Phylax pacificus Provancher, 1885. Canad. Ent. 17: 117. ♀.
Phylax niger Provancher, 1885. Canad. Ent. 17: 117. ♂. N. syn.

rufipes (Provancher). Canada.
Phylax rufipes Provancher, 1880. Nat. Canad. 12: 175. ♀.

rufiventris (Brullé). n. comb. D. C., N. J., N. C., Fla., Ind., Mo., Tex.
Syngaster rufiventris Brullé, 1846. *In* Lepeletier, Hist. Nat. Ins. Hym., v. 4, p. 458. ♀.
Bracon radiatus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 185. ♀. N. syn.

Genus RHOPTROCENTRUS Marshall

Rhoptrocentrus Marshall, 1897. *In* Andre, Spec. Hym. Eur. Alg., v. 5 bis, p. 99. Type: ***Rhoptrocentrus piceus*** Marshall. Monob.

piceus Marshall. Europe; Pa., W. Va., Va., D. C., Md., N. C. Host: *Hylotrupes bajulus* (L.).

Rhoptrocentrus piceus Marshall, 1897. *In* Andre, Spec. Hym. Eur. Alg., v. 5 bis, p. 100. ♀.

Genus DORYCTINUS Roman

Doryctinus Roman, 1910. Ent. Tidskr. 31: 122.
Type: ***Exothecus rugulosus*** Cresson. Monob. and orig. desig.

rugulosus (Cresson). Tex.
Exothecus rugulosus Cresson, 1872. Amer. Ent. Soc. Proc. 4: 190. ♀.
Doryctes texanus Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 627. ♀. N. syn.

secundus Muesebeck and Walkley, n. name. Tex. (Cyprus Mills).
Heterospilus texanus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 214. ♂. Preocc. by Ashmead, 1889.

Genus POLYSTENOIDES Muesebeck

Polystenoides Muesebeck, 1950. Ent. Soc. Wash. Proc. 52: 79.
Type: ***Polystenoides lignicola*** Muesebeck. Monob. and orig. desig.

lignicola Muesebeck. Pa., N. C.
Polystenoides lignicola Muesebeck, 1950. Ent. Soc. Wash. Proc. 52: 79. ♀ ♂.

Genus GLYPTODORYCTES Ashmead

Glyptodorcytes Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 144.
Type: ***Heterospilus caryae*** Ashmead. Monob. and orig. desig.

caryae (Ashmead). Pa., W. Va., Va., N. C., Miss., Kans. Host: *Scobicia bidentata* (Horn).
Heterospilus caryae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 214. ♀ ♂.

Genus GLYPTOCOLASTES Ashmead

Glyptocolastes Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 142.
Type: ***Glyptocolastes texanus*** Ashmead. Monob. and orig. desig.

bruchivorus Crawford. Tex.; Hawaii, Mexico. Hosts: *Algarobius prosopis* (Lec.), *Mimosestes sallaei* (Sharp).
Glyptocolastes bruchivorus Crawford, 1909. Ent. Soc. Wash. Proc. 11: 203. ♀ ♂.

texanus Ashmead. Tex., Ariz.
Glyptocolastes texanus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 142.

Genus RUSSELLELLA Muesebeck and Walkley, new name

Russellia Muesebeck, 1950. Ent. Soc. Wash. Proc. 52: 78. Preocc. by Vargas, 1943.
Type: ***Heterospilus? astigma*** Ashmead. Orig. desig.

astigma (Ashmead). Md., W. Va., N. C., Okla., Iowa. Host: *Agrilus difficilis* Gory.
Heterospilus? astigma Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 215. ♂.

prosopidis (Muesebeck). Tex. (Presidio).
Russellia prosopidis Muesebeck, 1950. Ent. Soc. Wash. Proc. 52: 78. ♀ ♂.

Genus HETEROSPILUS Haliday

Heterospilus Haliday, 1836. Ent. Mag. 4: 40, 46.
Type: ***Rogas (Heterospilus) quaestor*** Haliday. Monob.
Synodus Ratzeburg, 1848. Ichn. d. Forstins., v. 2, p. 31. Preocc.
Type: ***Bracon incompletus*** Ratzeburg. Monob.
Caenophanes Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 236. N. name.
Type: ***Bracon incompletus*** Ratzeburg. Autob.
Telebolus Marshall, 1888. *In* Andre, Spec. Hym., Eur. Alg., v. 4, p. 202. N. syn.
Type: ***Telebolus corsicus*** Marshall. Monob.

aciculatus (Provancher), n. comb. Calif. (Los Angeles).
Macrocentrus aciculatus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 380.

anobiidivorus Muesebeck. Fla. (St. Augustine). Host: *Neogastrallus librinocens* Fish.
Heterospilus anobiidivorus Muesebeck, 1939. Ent. Soc. Wash. Proc. 41: 62. ♀.

anthaxiae (Ashmead). Pa., W. Va., N. C. Hosts: *Anthaxia viridicornis* (Say); *Agrilus* sp. in bark of *Cornus florida*.
Caenophanes anthaxiae Ashmead, 1893. Canad. Ent. 25: 75, 77. ♂ ♀.

atratus (Ashmead). Colo., Calif.
Caenophanes atrata Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 16. ♂ ♀.

atriceps (Ashmead). Va., Mo.
Caenophanes atriceps Ashmead, 1893. Canad. Ent. 25: 76. ♀.

baeticatus (Provancher), n. comb. Canada, Va. Host: *Xyletinus peltatus* (Harr.).
Syngaster baeticatus Provancher, 1880. Nat. Canad. 12: 162. ♀.

blackmani Rohwer, emend. N. Y., N. C. Host: *Scolytus quadrispinosus* Say.
Heterospilus blackmanni Rohwer, 1919. Canad. Ent. 51: 161. ♀ ♂.

borealis (Ashmead). Ont. (Ottawa).
Caenophanes borealis Ashmead, 1891. Canad. Ent. 23: 2. ♀.

bruchi Viereck. N. C., Ga., La., Tex. Host: *Bruchus* sp.; *Amblycerus robiniae* (F.).
Heterospilus bruchi Viereck, 1910 (1909). Ent. Soc. Wash. Proc. 11: 210. ♀ ♂.

cephi Rohwer. N. Y., Pa. Host: *Cephus pygmaeus* (L.).
Heterospilus cephi Rohwer, 1925. Wash. Acad. Sci. Jour. 15: 178. ♀ ♂.
Biology and morphology: Hill and Smith, 1931. Jour. Agr. Res. 43: 597–609.

chittendenii (Ashmead). Va.
Caenophanes Chittendenii Ashmead, 1893. Canad. Ent. 25: 77. ♀ ♂.

consimilis (Ashmead). U. S.
Caenophanes consimilis Ashmead, 1893. Canad. Ent. 25: 75. ♀.

eurostae Viereck. Conn. (Stonington). Host: Galls of *Eurosta solidaginis* (Fitch).
Heterospilus eurostae Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 238. ♀.

flavicollis (Ashmead). D. C.
Caenophanes flavicollis Ashmead, 1893. Canad. Ent. 25: 75. ♀.

floridanus (Ashmead). Fla. (Jacksonville).
Caenophanes floridanus Ashmead, 1893. Canad. Ent. 25: 76. ♀.

hylotrupidis (Ashmead). W. Va. (Morgantown). Host: *Semanotus ligneus* (F.).
Caenophanes hylotrupidis Ashmead, 1893. Canad. Ent. 25: 76, 78. ♂ ♀.

koebelei (Ashmead). Calif.
Caenophanes Koebelei Ashmead, 1893. Canad. Ent. 25: 77. ♀ ♂.

languriae (Ashmead). Que. to S. C. west to Kans. Host: *Languria* sp.
Caenophanes languriae Ashmead, 1893. Canad. Ent. 25: 75, 77. ♂ ♀.

leptostyli Rohwer. Maine, N. Y., N. C. Host: *Leptostylus collaris* (Hald.).
Heterospilus leptostyli Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 536. ♀ ♂.

liopodis (Brues), n. comb. Mass. (Framingham). Host: ?*Leiopus alpha* (Say).
Coeloides liopodis Brues, 1910. Wis. Nat. Hist. Soc. Bul. 8: 79. ♀.

longicauda (Ashmead). W. Va., Fla. Host: *Xyletinus peltatus* (Harr.).
Caenophanes longicaudus Ashmead, 1893. Canad. Ent. 25: 75. ♀.

melanocephalus Rohwer. Tex. (Uvalde). Hosts: *Olycella junctolineella* (Hulst); *Noctuelia elautalis* (Grote).
Heterospilus melanocephalus Rohwer, 1925. Wash. Acad. Sci. Jour. 15: 181. ♀.

melleus (Ashmead). W. Va. (Morgantown).
Caenophanes melleus Ashmead, 1893. Canad. Ent. 25: 77. ♀ ♂.

mordellistenae Viereck. Ohio (Wilmington). Host: *Mordellistena andreae* var. *ustulata* Lec.
Heterospilus mordellistenae Viereck, 1911. U. S. Natl. Mus. Proc. 49: 403. ♀.

pityophthori (Ashmead), n. comb. W. Va. (Morgantown). Host: *Pityophthorus* sp.
Rhyssalus pityophthori Ashmead, 1893. Canad. Ent. 25: 69. ♀.
Caenophanes pityophthori Ashmead, 1893. Canad. Ent. 25: 76, 78. ♂. N. syn.

prodoxi (Riley), n. comb. Mo. Host: *Prodoxus quinquepunctellus* (Chamb.).
Exothecus prodoxi Riley, 1880. Amer. Ent. 3: 156. ♀ ♂.

prosopidis Viereck. La., Tex.; Hawaii. Hosts: *Bruchus* sp., *Acanthoscelides horni* Pic; *Algarobius prosopis* (Lec.).
Heterospilus prosopidis Viereck, 1910. U. S. Natl. Mus. Proc. 38: 381. ♀ ♂.

scolyticida (Ashmead), n. comb. N. Y., Pa., W. Va. Host: *Scolytus quadrispinosus* Say.
Lysitermus scolyticida Ashmead, 1893. Canad. Ent. 25: 74. ♀.

selandriae (Ashmead). U. S. Host: ?*Caliroa cerasi* (L.).
?Rhyssalus selandriae Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 629. ♀.

shoshonea (Viereck), n. comb. Wyo. (Lander).
Doryctomorpha shoshonea Viereck, 1907. Amer. Ent. Soc. Trans. 33: 382. ♀.

striatus Muesebeck and Walkley, n. name. Md., Va., Fla., Iowa.
Caenophanes aciculatus Ashmead, 1893. Canad. Ent. 25: 76. ♂ ♀. Preocc. in *Heterospilus* by Provancher, 1888.

Genus PIOSCELUS[12] Muesebeck and Walkley, new genus

Closely related to *Heterospilus* Haliday, which it resembles in habitus and in having the first intercubitus obsolescent, but from which it may be immediately distinguished by the presence of two complete, posteriorly convergent grooves on the second tergite, and in the male sex by the absence of a stigma in the hind wing and by the conspicuously enlarged hind femora.

Type: ***Hedysomus wichitus*** Viereck.

wichitus (Viereck), n. comb. Kans., Tenn., Miss. Host: Cicada eggs.
Hedysomus wichitus Viereck, 1907. Amer. Ent. Soc. Trans. 33: 404. ♂.
Heterospilus beameri Rohwer, 1925. Wash. Acad. Sci. Jour. 15: 177. ♀ ♂. N. syn.

Genus ALLORHOGAS Gahan

Allorhogas Gahan, 1912. Ent. Soc. Wash. Proc. 14: 3.
Type: ***Allorhogas gallicola*** Gahan. Monob. and orig. desig.

arizonensis (Ashmead). Ariz. (Fort Grant). Host: Cynipid gall on oak.
(?)Bracon arizonensis Ashmead, 1889 (1888). U. S. Natl. Mus. Proc. 11: 616. ♀ ♂.

gallicola Gahan. Mass., Conn., Md., Va. Host: *Neuroterus batatus* Fitch.
Allorhogas gallicola Gahan, 1912. Ent. Soc. Wash. Proc. 14: 4. ♀ ♂.

Genus CALLIHORMIUS Ashmead

Callihormius Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 148.
Type: ***Pambolus bifasciatus*** Ashmead. Monob. and orig. desig.

bifasciatus (Ashmead). D. C., W. Va., Tex., Calif. Host: *Anthaxia viridicornis* (Say).
Pambolus bifasciatus Ashmead, 1892. Psyche 6: 289. ♂ ♀.

[12] From πιων, thick, plump; and σκελος, leg.

Genus DENDROSOTER Wesmael

Dendrosoter Wesmael, 1838. Nouv. Mem. Acad. Sci. Bruxelles 11: 137.
Type: ***Bracon protuberans*** Nees. Monob.
Eurybolus Ratzeburg, 1848. Ichn. d. Forstins., v. 2, p. 32.
Type: (***Bracon (Eurybolus) curtisii*** Ratzeburg)=***Bracon protuberans*** Nees. Desig. by Viereck, 1914.
Caenopachys Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 239.
Type: ***Bracon (Eurybolus) hartigii*** Ratzeburg. Monob. and orig. desig.
Revision: Muesebeck, 1938. Ent. Soc. Wash. Proc. 40: 281–287.

integer Muesebeck. Oreg., Calif. Hosts: *Scolytus praeceps* Lec.; *Phloeosinus* sp.; *P. cupressi* Hopk.
Dendrosoter integer Muesebeck, 1938. Ent. Soc. Wash. Proc. 40: 283, 287. ♀ ♂.

scaber Muesebeck. Calif., Mont., N. Mex. Host: *Pityophthorus* sp.
Dendrosoter scaber Muesebeck, 1938. Ent. Soc. Wash. Proc. 40: 283, 286. ♀ ♂.

scolytivorus (Viereck and Rohwer). S. Dak., Colo., "Grand Canyon Natl. Park."
Caenopachys scolytivorus Viereck and Rohwer. *In* Rohwer, U. S. Natl. Mus. Proc. 45: 536. ♂.

sulcatus Muesebeck. N. C., Va., Tex., D. C. Hosts: *Ips* sp.; *I. avulsus* (Eichh.); *Dendroctonus frontalis* Zimm.
Dendrosoter sulcatus Muesebeck, 1938. Ent. Soc. Wash. Proc. 40: 283, 284. ♀ ♂.

Genus RHACONOTUS Ruthe

Rhaconotus Ruthe, 1854. Stettin. Ent. Ztschr. 15: 349.
Type: ***Rhaconotus aciculatus*** Ruthe. Monob.
Hedysomus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 238. N. syn.
Type: ***Hedysomus elegans*** Foerster. Monob. and orig. desig.
Hormiopterus Giraud, 1869. Soc. Ent. France Ann. (4) 9: 478.
Type: ***Hormiopterus Ollivieri*** Giraud. Monob.
Euryphrymnus Cameron, 1910. Wien. Ent. Ztg. 29: 100. N. syn.
Type: ***Euryphrymnus testaceiceps*** Cameron. Monob.

claripennis (Brues), n. comb. Tex. (Douglas Co.).
Hormiopterus claripennis Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 60, 61. ♀.

cressoni Muesebeck and Walkley, n. name. Fla., Tex.
Hormius? aciculatus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 190. ♀. Preocc. by Ruthe, 1854.

fasciatus (Ashmead), n. comb. Md., Ohio, Ind., Tenn., Iowa, Mo., S. Dak., Kans.
Hormiopterus fasciatus Ashmead, 1893. Amer. Ent. Soc. Trans. 20: 43. ♀.

graciliformus (Viereck), n. comb. Kans. (Wellington).
Hormiopterus graciliformus Viereck, 1911. U. S. Natl. Mus. Proc. 40: 183. ♀ ♂.

Genus HISTEROMERUS Wesmael

Histeromerus Wesmael, 1838. Nouv. Mem. Acad. Sci. Bruxelles 11: 63.
Type: ***Histeromerus mystacinus*** Wesmael. Monob.

canadensis Ashmead. Que., Ont., Conn., Pa., N. C., Ohio. Hosts: *Hadrobregmus carinatus* (Say); *Lyctus* sp.
Histeromerus Canadensis Ashmead, 1891. Canad. Ent. 23: 7. ♀.

Genus ODONTOBRACON Cameron

Odontobracon Cameron, 1887. Biol. Cent.-Amer., Hym., v. 1, p. 384.
Type: ***Odontobracon nigriceps*** Cameron. Desig. by Viereck, 1914.

californicus Rohwer. Calif. (Santa Cruz Mts.).
Odontobracon californicus Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 169. ♀ ♂.

elaphidiovorus Rohwer. N. J., Va., N. C., Ga., Fla., Tex., Ariz. Host: *Elaphidion* sp.
Odontobracon elaphidiovorus Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 168. ♀ ♂.

oemeovorus Rohwer. Fla., La., Tex. Host: *Oeme rigida* (Say).
Odontobracon oemeovorus Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 167. ♀.

Tribe HECABOLINI

Genus MIOCOLUS Foerster

Miocolus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 237.
Type: *Miocolus pallipes* Foerster. Monob. and orig. desig.

bruesi Muesebeck and Walkley, n. name. Mass. (Worcester).
Acrisis americanus Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 160. ♂. Preocc. by Ashmead, 1894.

minimus (Cresson), n. comb. N. Y. Host: *Lyctus parallelipipedus* (Melsh.).
Anisopelma minima Cresson, 1880. Amer. Ent. 3: 24. ♀.

utilis (Cresson), n. comb. Host: *Lyctus parallelipipedus* (Melsh.).
Anisopelma utilis Cresson, 1880. Amer. Ent. 3: 24. ♀ ♂.

Genus MONOLEXIS Foerster

Monolexis Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 237.
Type: *Monolexis fuscicornis* Foerster. Monob. and orig. desig.

fuscicornis Foerster. Cosmopolitan. Hosts: *Lyctus* spp.; *L. linearis* (Goeze); *L. planicollis* Lec.; *L. parallelipipedus* (Melsh.).
Monolexis fuscicornis Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 237.
Anisopelma lycti Cresson, 1880. Amer. Ent. 3: 24. ♀ ♂. N. syn.

Genus ACRISIS Foerster

Acrisis Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 236.
Type: *Acrisis gracilicornis* Foerster. Monob. and orig. desig.
Euchasmus Marshall, 1888. *In* André, Spec. Hym. Eur. Alg., v. 4, p. 210.
Type: *Euchasmus exiguus* Marshall. Monob.
Episigalphus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 125.
Type: *Episigalphus minutessimus* (!) Ashmead. Monob. and orig. desig.
Taxonomy: Muesebeck, 1935. Ent. Soc. Wash. Proc. 37: 175–177.

americana (Ashmead). Ind. (Lafayette).
Pygostolus americanus Ashmead, 1894. Cincinnati Soc. Nat. Hist. Jour. 17: 47. "♂"=♀.

minutissima (Ashmead). Ill., La.
Episigalphus minutessimus (!) Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 125. ♀.

Genus Pambolidea Ashmead

Pambolidea Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 147.
Type: *Pambolidea yuma* Ashmead. Monob.

yuma Ashmead. Ariz., Tex.
Pambolidea yuma Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 147.

Genus ECPHYLUS Foerster

Ecphylus Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 237.
Type: *Bracon silesiacus* Ratzeburg. Monob. and orig. desig.
Sactopus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 146.
Type: *Sactopus schwarzii* Ashmead. Monob. and orig. desig.
Sycosoter Picard and Lichtenstein, 1917. Soc. Ent. France Bul. 16: 285.
Type: *Sycosoter lavagnei* Picard and Lichtenstein. Monob. and orig. desig.
Taxonomy: Muesebeck, 1935. Ent. Soc. Wash. Proc. 37: 21–22.

arcuatus Muesebeck. Oreg., Calif.
Ecphylus arcuatus Muesebeck, 1935. Ent. Soc. Wash. Proc. 37: 23. ♀ ♂.

bicolor Rohwer. Wash. (Easton).
Ecphylus bicolor Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 540. ♀.

californicus Rohwer. Calif., Oreg., Wash. Hosts: *Phloeosinus ?sequoiae* Hopk.; *P. punctatus* Lec.
Ecphylus californicus Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 539. ♀.

hicoriae Rohwer. Conn., N. Y., N. C. Host: *Scolytus quadrispinosus* Say.
Ecphylus hicoriae Rohwer, 1919. Canad. Ent. 51: 161. ♀ ♂.

hubbardi Rohwer. Ariz. (Chi-Ri-Cahua Mts.).
Ecphylus hubbardi Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 538. ♀.

lepturgi Rohwer. N. C. (Tryon). Host: (?)*Lepturges facetus* (Say).
Ecphylus lepturgi Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 540. ♀.

lycti Rohwer. Fla. (Lake City). Host: *Lyctus* sp. in bamboo.
Ecphylus lycti Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 538. ♀.

nigriceps Ashmead. W. Va. (Morgantown).
Ecphylus nigriceps Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 216. ♀.

pallidus Ashmead. W. Va., D. C., N. C.
Ecphylus pallidus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 215. ♀ ♂.

rohweri Muesebeck. Ariz., N. Mex.
Ecphylus schwarzi Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 538. ♀. Preocc.
Ecphylus rohweri Muesebeck, 1935. Ent. Soc. Wash. Proc. 37 (1): 23. N. name.

schwarzii (Ashmead). Pa., N. J., D.C., N. C. Hosts: *Pityophthorus* sp.; *Dendroctonus frontalis* Zimm.
Sactopus schwarzii Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 146.
Ecphylus johnsoni Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 539. ♀.

texanus Brues. Tex. (Brownsville).
Ecphylus texanus Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 111. ♀.

Genus PARAECPHYLUS Ashmead

Paraecphylus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 147.
Type: *Paraecphylus websteri* Ashmead. Monob. and orig. desig.

hypothenemi (Ashmead), n. comb. W. Va. (Morgantown). Host: *Hypothenemus* sp. in walnut.
Ecphylus hypothenemi Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 215. ♀ ♂.

websteri Ashmead. Ohio, Man.
Paraecphylus websteri Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 147. ♀.

Subfamily COSMOPHORINAE Muesebeck and Walkley, new subfamily

Genus COSMOPHORUS Ratzeburg

Cosmophorus Ratzeburg, 1848. Ichn. d. Forstins., v. 2, p. 71.
Type: *Cosmophorus klugii* Ratzeburg. Monob.

No North American species.

Genus COSMOPHORINUS Viereck

Cosmophorinus Viereck, 1925. Canad. Ent. 57: 73. Proposed as subgenus o *Cosmophorus* Ratz.
Type: *Cosmophorus hopkinsii* Ashmead. Present desig.

dendroctoni (Viereck). N. B. (Fredericton). Host: *Dendroctonus simplex* Lec.
Cosmophorus (*Cosmophorinus*) *dendroctoni* Viereck. Canad. Ent. 57: 73. ♂.

hopkinsii (Ashmead). W. Va. (Morgantown). Host: *Polygraphus rufipennis* (Kby.).
Cosmophorus hopkinsii Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 216. ♂ ♀.

hypothenemi (Brues). Pa. (Harrisburg). Host: *Hypothenemus* sp.
Cosmophorus hypothememi (!) Brues, 1908. Wis. Nat. Hist. Soc. Bul. 6: 162. ♀.

pityophthori (Rohwer). Calif. (Oakland).
Cosmophorus pityophthori Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 163. ♀ ♂.

Unrecognized Genera and Species of Braconidae

Celereon Say, 1836. Boston Jour. Nat. Hist. 1: 257.
Type: *Bracon inescator* Say. Desig. by Viereck, 1914.

Bracon (*Celereon*) *inescator* Say, 1836. Boston Jour. Nat. Hist. 1: 257. ♀.

Bracon (*Celereon*) *paululor* Say, 1836. Boston Jour. Nat. Hist. 1: 257. ♀.

Bracon pectinator Say, 1836. Boston Jour. Nat. Hist. 1: 251. ♀.

Bracon populator Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 323. ♀ ♂.

Bracon (*Celereon*) *pullator* Say, 1836. Boston Jour. Nat. Hist. 1: 257. ♀.

Stephanus rufipes Say, 1824. *In* Keating, Narr. Long's 2nd Exped., App. p. 324. This is apparently not a stephanid. More probably it is a braconid, but for the present it must be left without indication of more definite placement.

Family ICHNEUMONIDAE[13]

Keys to genera: Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 10–103.—Schmiedeknecht, 1902–1936. Opusc. Ichn., 5 vols. plus supplements.—Schmiedeknecht, 1930. Hymenoptera Nord und Mitteleuropas . . . , ed. 2, pp. 94–101, 260–337.—Berthoumieu, 1904. *In* Wytsman, Gen. Ins., fasc. 18, 87 pp. (Ichneumoninae).—Szépligeti, 1905. *In* Wytsman, Gen. Ins., fasc. 34, 71 pp. (part of Ophioninae).—Schmiedeknecht, 1907. *In* Wytsman, Gen. Ins., fasc. 62, 120 pp. (Pimplinae).—Schmiedeknecht, 1908. *In* Wytsman, Gen. Ins., fasc. 75, 165 pp. (Gelinae)—Szépligeti, 1911. *In* Wytsman, Gen. Ins., fasc. 114, 100 pp. (part of Ophioninae). Catalogue (Nearctic spp.): Townes, 1944 and 1945. Amer. Ent. Soc. Mem. 11: 1–925.

The above are the more useful general taxonomic references, but only Schmiedeknecht's *Opuscula Ichneumonologica* and his *Hymenoptera Nord und Mitteleuropas* contain keys that are reasonably reliable. Generic revisions of limited groups, as cited under the groups concerned, usually have more reliable keys.

Members of this family are all parasites. Hosts comprise larvae and pupae of holometabolous insects (including other Ichneumonidae), immature and adult spiders, and the egg sacs of spiders and pseudoscorpions. Host selection is sometimes quite restricted but more often includes a variety of species that may be exposed to parasitism in the habitat usually explored by the ovipositing female. Thus a given ichneumonid may parasitize mostly lepidopterous pupae under leaf mold, or exposed naked lepidopterous pupae, or exposed small cocoons, or caterpillars in buds, or caterpillars in leaf rolls, or larger hairy caterpillars, or leaf-feeding tenthredinid larvae, or larvae in nuts, galls, or fruit, or other classes of hosts.

The majority of the Nearctic species prefer habitats where there is frequent dew and considerable vegetation, such as river and stream bottoms, high altitudes, and the edges of woods. Only in such habitats

[13]By Henry and Marjorie Townes, North Carolina State College, Raleigh, N. C.

can many of them find drinking water frequently enough and protection from dessication until the next drink. Drier and warmer habitats have ichneumonids too, but these are stragglers from more favorable haunts or species specially adapted to the conditions. Common adaptations to the drier conditions include unusually heavy sclerotization, special ability to get nectar from flowers, or a life history in which adults are on the wing during periods of greater moisture, as in the spring and fall. Some species fly at night and escape the low humidity and high temperatures of the day by resting among thick vegetation. In many habitats species of various kinds are common from spring until a summer dry hot spell, after which only those specially adapted and stragglers of the more sensitive species may be found. This dependence on dew and protection from desiccation tends to make ichneumonids most common in areas of greater rainfall and of cooler climates.

Statements of distribution are either lists of states and provinces, with occasional more definite localities, or generalizations when the extent and nature of the data seem to warrant them. Much new distributional information is included from specimens in the authors' collection and some from specimens in the U. S. National Museum. Many published records of uncertain validity have been omitted. New records are concentrated in the states and provinces where collectors have been unusually active and their catches have been available for study—J. G. Rempel in Saskatchewan, E. H. Strickland in Alberta, H. R. Foxlee in British Columbia, F. D. DeGant in Ohio, D. J. Borror and J. C. Bradley in Maine, R. M. Bohart and G. E. Bohart in California, and the authors in Quebec, New Hampshire, Rhode Island, New York, New Jersey, Pennsylvania, Ohio, Maryland, Virginia, North Carolina, South Carolina, Colorado, Arizona, Washington, Oregon, and California[14].

New host records are almost entirely from specimens reared and submitted to the Division of Insect Identification of the U. S. Bureau of Entomolgy and Plant Quarantine by workers in other Divions of that Bureau and by various other public and private research workers. Published host records of doubtful accuracy have been omitted.

The names of supergeneric groups are based on those of the oldest included genera, which revives some well-known names like Ephialtini and Cteniscini and introduces some novelties like Pristiceratini, Banchinae, and Scolobatinae. The names of the subfamilies Ichneumoninae, Phaeogeninae, and Cryptinae are changed to Pimplinae, Ichneumoninae, and Gelinae, respectively, for the reasons given under the generic names *Ichneumon* and *Trachysphyrus*.

Subfamily PIMPLINAE

Morphology and phylogeny of ♂ genitalia: Pratt, 1939. Ent. Soc. Amer. Ann. 32: 727–742.

Key to tribes: Cushman, 1921. U. S. Natl. Mus. Proc. 60 (4) : 1–6.

Tribe PIMPLINI

Genus SCAMBUS Hartig

Scambus Hartig, 1838. Jahresber. Fortschr. Forstwiss. 1: 267.

[14] The authors' collecting in Arizona and much of that in Colorado and California was done with the aid of grants from the American Philosophical Society.

Type: ***Pimpla* (*Scambus*) *sagax*** Hartig. Desig. by Viereck, 1914.

Tromera Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 164.
Type: ***Pimpla pomorum*** Ratzeburg. Included by Schmiedeknecht, 1888.

Epiurus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 164. Preocc.
Type: ***Pimpla brevicornis*** Gravenhorst. Desig. by Ashmead, 1900.

Troctocerus Woldstedt, 1876. Ueber Eine Samml. Schles. Ichneum., p. 696.
Type: ***Troctocerus elegans*** Woldstedt. Monob.

Ateleophadnus Cameron, 1905. Invertebrata Pacifica 1: 127.
Type: (***Ateleophadnus bicarinata*** Cameron)=[***Pimpla***] ***pterophori*** (Ashmead). Monob.

Pseudopoemenia Kiss, 1924. Mitt. Siebenb. Ver. Naturw. Verh. 72–74: 91.
Type: (***Pseudopoemenia annulata*** Kiss)=[***Pimpla***] ***calobata*** (Gravenhorst). Monob.

Endromopoda Hellén, 1939. Notulae Ent. 19: 56.
Type: ***Pimpla melanopyga*** Gravenhorst. Orig. desig.

The species of *Scambus* are parasites of small Lepidoptera in buds, fruit, leaf rolls, leaf mines, galls, or similar retreats.

alboricta (Cresson). Transcont. in Transit. and U. Austr. Zones. Hosts: *Archips argyrospila* (Wlkr.); *Argyotaenia pinatubana* (Kearf.); *Ancylis comptana* (Froel.); *Episimus argutanus* (Clem.); *Zotheca tranquilla* Grote.
Pimpla alboricta Cresson, 1870. Amer. Ent. Soc. Trans. 3: 147. ♂.
Pimpla investigatrix Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 142. ♀.
Biology: Cushman, 1926. Ent. Soc. Wash. Proc. 28: 33.

aplopappi (Ashmead). N. Mex., Ariz., Calif., Wash., Nebr. Hosts: *Recurvaria milleri* Busck; *Rhyacionia frustrana bushnelli* (Busck): *R. pasadenana* (Kearf.); *Etiella zinckenella* (Treit.).
Pimpla aplopappi Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 446. ♂.
Scambus evetrivorus Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 225. ♀. N. syn.

atrocoxalis (Ashmead). Alaska.
Epiurus atrocoxalis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 201. ♂ ♀.

bicoloripes (Ashmead), n. comb. Alaska, Wash., Oreg., Calif., Utah. Hosts: *Gnorimoschema octomaculella* Chamb.; *Archips argyrospila* (Wlkr.); *Ancylis comptana* (Froel.); *Epiblema benignata* McD.; *Platyptilia carduidactyla* (Riley), *P. williamsii* Grin.
Epiurus bicoloripes Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 201. ♀.
Biology: Lange, 1941. Calif. Agr. Expt. Sta. Bul. 653: 23, 67.

detritus (Holmgren). Transcont. in Transit. Zone; Europe. Host: *Cephus pygmaeus* (L.).
Pimpla detrita Holmgren 1860. Svenska Vetensk. Akad. Handl. 3, pt. 2, no. 10: 23. ♂ ♀.

ephialtoides Cushman. Mont., Oreg., Calif. Host: *Barbara colfaxiana siskiyouana* (Kearf.).
Scambus ephialtoides Cushman, 1917. U. S. Natl. Mus. Proc. 53: 466. ♂ ♀.

euurae (Ashmead). Calif. Hosts: *Nematus californicus* Marl., *N. pyriformis* (Marl.).
Pimpla euurae Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 447. ♀.

hirticauda (Provancher). South. Calif. The type is recorded from Ont., probably in error.
Pimpla hirticauda Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 116. ♀.

hispae (Harris). Transcont. in Canad., Transit., and U. Austr. Zones. The hosts recorded are: *Thyridopteryx ephemeraeformis* (Haw.); *Coleophora malivorella* (Riley); *C. pruniella* Clem.; *C. salmani* Heinr.; *Anthophila pariana* (Clerck); *Dichomeris ligulella* Hbn.; *Filatima persicaeella* (Murtf.); *Gnorimoschema operculella* (Zell.); *Keiferia glochinella* (Zell.); *Recurvaria thujaella* (Kearf.); *Archips argyrospila* (Wlkr.); *Choristoneura fumiferana* (Clem.); *Argyrotaenia pinatubana* (Kearf.); *A. velutinana* (Wlkr.); *Acleris minuta* (Rob.); *A. variana* (Fern.); *Ancylis comptana* (Froel.); *Carpocapsa pomonella* (L.);

Grapholitha molesta (Busck); *Polychrosis viteana* (Clem.); *Rhyacionia buoliana* (Schiff.); *R. frustrana* (Comst.); *Acrobasis juglandis* (Le Bar.); *Mineola indiginella* (Zell.); *Dicymolomia julianalis* (Wlkr.); *Ennomos subsignarius* (Hbn.); *Hemerocampa leucostigma* (A. and S.), *Notolophus antiquus* (L.); *Halisidota tessellaris* (A. and S.); *Heterarthrus nemoratus* (Fall.); *Disholcaspis mamma* (Walsh). The type of *hispae* was recorded from *Anoplitis* but evidence with the type specimen indicates this to be an error.

Ichneumon hispae Harris, 1835. Boston Soc. Nat. Hist. Jour. 1: 149-150. ♀.

Pimpla indagatrix Cresson, 1870. Amer. Ent. Soc. Trans. 3: 146. ♂.

Pimpla minuta Weed, 1887. Ill. State Lab. Nat. Hist. Bul. 3: 41. ♂.

Pimpla gossypii Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 445. ♀.

Pimpla (Epiurus) nigrifrons Viereck, 1909. Ent. Soc. Wash. Proc. 11: 211. ♂ ♀.

Epiurus innominatus Viereck, 1912. U. S. Natl. Mus. Proc. 42: 149. ♀.

Biology: Porter and Garman, 1923. Conn. Agr. Expt. Sta. Bul. 246: 260.—Balduf, 1926. Canad. Ent. 58: 140.—Cushman, 1927. Jour. Agr. Res. 34: 616.—McConnell, 1928. Md. Agr. Expt. Sta. Bul. 298: 180.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 143.—Balduf, 1937. Ent. Soc. Wash. Proc. 39: 178.

lithocolletidis (Ashmead). Calif. (Alameda).

Pimpla lithocolletidis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 447. ♂.

pterophori (Ashmead). Transcont. in Canad., Transit., and U. Austr. Zones. Hosts recorded in literature are: *Mononychus vulpeculus* (F.); *Gnorimoschema gallaesolidaginis* (Riley); *G. gallaeasteriella* (Kell.); *Stagmatophora ceanothiella* Cosens; *Mompha eloisella* (Clem.); *Ancylis comptana* (Froel.); *Carpocapsa pomonella* (L.); *Epiblema otiosana* (Clem.); *E. scudderiana* (Clem.); *E. strenuana* (Wlkr.); *Grapholitha molesta* (Busck); *Proteoteras aesculana* Riley; *Platyptilia carduidactyla* (Riley); *P. williamsii* Grin.; *Pyrausta nubilalis* (Hbn.); *Achatodes zeae* (Harr.); *Ametastegia glabrata* (Fall.).

Pimpla pterelas of authors, not of Say.

Pimpla pterophori Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 445. ♀.

Colpomeria litoralis Davis, 1898. Amer. Ent. Soc. Trans. 24: 367. ♂.

Ateleophadnus bicarinata Cameron, 1903. Invertebrata Pacifica 1: 128. ♀.

Biology: Vinal and Caffrey, 1919. Mass. Agr. Expt. Sta. Bul. 189: 58.—Leiby, 1922. N. Y. Ent. Soc. Jour. 30: 93.—Cushman, 1926. Ent. Soc. Wash. Proc. 28: 33.—Wilder, 1927. Psyche 34: 227–229.—Balduf, 1929. Ohio Jour. Sci. 29: 224–226.

tecumseh Viereck. Conn. (West Haven).

Scambus (Scambus) tecumseh Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 320. ♀.

transgressus (Holmgren). Calif.

Pimpla transgressa Holmgren, 1868. Eug. Resa I, Zool. I, Ins., p. 405. ♀.

Taxonomy: Roman, 1910. Ent. Tidskr. 31: 160.

Genus ALOPHOSTERNUM Cushman

Alophosternum Cushman, 1933. U. S. Natl. Mus. Proc. 82: 7.
Type: ***Alophosternum foliicola*** Cushman. Orig. desig.

foliicola Cushman. Mass., Maine. Hosts: *Paraclemensia* sp.; *Cameraria coryliella* (Chamb.); *Heterarthrus nemoratus* (Fall.).

Alophosternum foliicola Cushman, 1933. U. S. Natl. Mus. Proc. 82: 8. ♂ ♀.

Genus CALLIEPHIALTES Ashmead

Calliephialtes Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 54.
Type: (***Pimpla xanthothorax*** Ashmead)=[***Pimpla***] ***grapholithae*** (Cresson). Orig. desig.

comstockii (Cresson). Transcont. in Transit. Zone. Hosts: *Pissodes strobi* (Peck); *Barbara colfaxiana taxifoliella* (Busck); *Petrova comstockiana* (Fern.); *Rhyacionia buoliana* (Schiff.); *R. frustrana* (Comst.); *Dioryctria zimmermani* (Grote).

Ephialtes comstockii Cresson, 1880. U. S. Dept. Agr. Ann. Rpt. for 1879, p. 235. ♀.
Biology: Cushman, 1927. Jour. Agr. Res. 34: 616.

ferrugineus Cushman. Puerto Rico, Cuba; south. Fla.
Calliephialtes ferrugineus Cushman, 1940. U. S. Natl. Mus. Proc. 88: 362. ♀.

grapholithae (Cresson). Atlantic to 100° W. in L. Austr. and U. Austr. Zones and in warmer parts of Transit. Zone. Hosts: *Carpocapsa pomonella* (L.); *Epiblema strenuana* (Wlkr.); *Grapholitha molesta* Busck; *Laspeyresia caryana* (Fitch); *Acrobasis juglandis* (Le Bar.); *Meskea dyspteraria* Grote; *Euura salicis-nodus* D. T.
Pimpla grapholithae Cresson, 1890. Ent. News 1: 50. ♂ ♀.
Pimpla xanthothorax Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 446. ♀.
Biology: Hamilton, 1890. Ent. News 1: 49.
Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 248, 249, 252.

notandus (Cresson). Transcont. in U. Austr. and L. Austr. Zones. Hosts: Bruchid in *Lotus* sp.; *Gnorimoschema baccharisella* Busck; *G. gallaeasteriella* (Kell.); *G. gallaesolidaginis* (Riley); *Walshia amorphella* Clem.; *Epiblema strenuana* (Wlkr.).
Pimpla notanda Cresson, 1870. Amer. Ent. Soc. Trans. 3: 148. ♂ ♀.
Biology: Riley, 1877. Ins. Mo., Ann. Rpt. 9: 98. — Leiby, 1922. N. Y. Ent. Soc. Jour. 30: 93.

nubilipennis (Viereck). Transcont. in Canad. Zone. Host: *Pissodes strobi* (Peck).
Exeristes nubilipennis Viereck, 1912. U. S. Natl. Mus. Proc. 42: 638. ♀.
Exeristes hyalinipennis Viereck, 1912. U. S. Natl. Mus. Proc. 42: 638. ♀.
Biology: Taylor, 1929. Ent. Amer. 10: 26–30, 68.

nucicola Cushman. Oreg., Calif. Hosts: *Walshia amorphella* (Clem.); *Carpocapsa pomonella* (L.); *Melissopus latiferreanus* (Wlsm.).
Calliephialtes nucicola Cushman, 1931. U. S. Natl. Mus. Proc. 79 (14): 5. ♂ ♀.
Biology: Barrett, 1932. Jour. Econ. Ent. 25: 1111.

petulca (Cresson). Tex. (Bosque Co.).
Pimpla petulca Cresson, 1872. Amer. Ent. Soc. Trans. 4: 165. ♀.
Taxonomy: Morley, 1914. Rev. Ichn. Brit. Mus., v. 3, p. 26. ♀.

stultor (Davis). Ont. (Toronto).
Pimpla stultor Davis, 1898. Amer. Ent. Soc. Trans. 24: 367. ♂.

thurberiae Cushman. South. Ariz.; Mexico, Costa Rica. Host: *Anthonomus grandis thurberiae* Pierce.
Calliephialtes thurberiae Cushman, 1915. Ent. Soc. Wash. Proc. 17: 132. ♂ ♀.

variatipes (Provancher). Ont., N. Y., N. J., Md., W. Va. Hosts: *Carpocapsa pomonella* (L.); *Grapholitha molesta* (Busck).
Ephialtes variatipes Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 114. ♂.
Calliephialtes benefactor Cushman, 1931. U. S. Natl. Mus. Proc. 79 (14): 6. ♂ ♀.

Genus PIMPLA Fabricius

Ephialtes of authors, not of Schrank.
Pimpla Fabricius, 1804. Systema Piezatorum, p. 112.
Type: ***Ichneumon manifestator*** Linnaeus. Desig. by Curtis, 1828.
Closterocerus Hartig, 1847. Naturw. Ver. Harz. Ber. 1846: 18. Preocc.
Type: ***Closterocerus sericeus*** Hartig. Monob.
Dolichomitus Smith, 1877. Zool. Soc. London Proc., p. 411. N. syn.
Type: ***Dolichomitus longicauda*** Smith. Monob.
Diclosterocerus Viereck, 1914. U. S. Natl. Mus. Bul. 83: 45. N. name for *Closterocerus*.
Exeristoidea Viereck, 1924. Canad. Ent. 56: 202.
Type: ***(Ichneumon (Exeristoidea) watsoni*** Viereck)=[***Ephialtes***] ***cephalotes*** (Holmgren). Orig. desig.

brevis (Morley), n. comb. "District of Hudson Bay."
Ephialtes brevis Morley, 1914. Rev. Ichn. Brit. Mus. v. 3, p. 23. ♀.

cephalotes (Holmgren), n. comb. Alta., Ont.; Europe.
Ephialtes cephalotes Holmgren, 1860. Svenska Vetensk. Akad. Handl. 3, pt. 2 (10): 13. ♀.
Ichneumon (Exeristoidea) watsoni Viereck, 1924. Canad. Ent. 56: 202. ♀.

dolichosoma (Viereck), n. comb. Pa., Md., N. C., S. C.
Ephialtes dolichosoma Viereck, 1912. U. S. Natl. Mus. Proc. 42: 637. ♀.

gigas (Walsh), n. comb. ?Ill.
Ephialtes gigas Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 110. ♀.

imperator (Kriechbaumer), n. comb. Transcont. in Canad. Zone; Eurasia.
Ephialtes imperator Kriechbaumer, 1854. Stettin. Ent. Ztg. 15: 156. ♀.
Ephialtes occidentalis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 269. ♀.

irritator (Fabricius). Atlantic to 100° W. in Transit. and U. Austr. Zones. Hosts: *Chrysobothris* sp.; *Megacyllene caryae* (Gah.); *M. robiniae* (Forst.); *Graphisurus fasciatus* (Deg.); *Leiopus variegatus* (Hald.); *Obrium rufulum* Gahan; *Stenocorus inquisitor* (L.); *Cryptorhynchus lapathi* (L.).
Ichneumon irritator Fabricius, 1775. Systema Ent., p. 336. ♀.
Biology: Chittenden, 1893. U. S. Dept. Agr. Insect Life 5: 257.—MacAndrews, 1933. Ent. Soc. Ontario, Ann. Rpt. 63: 50.
Taxonomy: Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 81.—Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 112.—Howard, 1902. Insect Book, pl. 10, fig. 8.—Morley, 1909. Ent. 42: 135.
Morphology: Pratt, 1939. Ent. Soc. Amer. Ann. 32: 735, 737.

macer (Cresson), n. comb. Transcont. in Transit. Zone.
Ephialtes macer Cresson, 1868. Canad. Ent. 1: 35. ♀.

manifestator (Linnaeus). Transcont. in Transit. Zone; Europe.
Ichneumon manifestator Linnaeus, 1758. Syst. Nat., ed. 10, p. 563. ♀.

perlongus (Cresson), n. comb. Transcont. in Canad. and Transit. Zones.
Ephialtes perlongus Cresson, 1870. Amer. Ent. Soc. Trans. 3: 143. ♂.

pterelas (Say). Transcont. in Transit. Zone.
Ichneumon (Pimpla) pterelas Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 71. ♀.
Taxonomy: Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 166.

pusio (Walsh), n. comb. ?Ill.
Ephialtes pusio Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 111. ♀.

pygmaeus (Walsh), n. comb. ?Ill.
Ephialtes pygmaeus Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 111. ♀.

tenuiventris (Holmgren), n. comb. Transcont. in Transit. Zone; Europe.
Ephialtes tenuiventris Holmgren, 1860. Svenska Vetensk. Akad. Handl. 3: 14. ♂ ♀.
Ephialtes pacificus Harrington, 1894. Canad. Ent. 26: 248. ♂ ♀.

Genus ISEROPUS Foerster

Iseropus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 164.
Type: (*Ichneumon graminellae* Schrank)=[*Ichneumon*] *stercorator* (Fabricius). Included by Woldstedt, 1877.
Revision: Cushman, 1940. U. S. Natl. Mus. Proc. 42: 51–58.

The species of *Iseropus* are gregarious parasites of Lymantriidae, Lasiocampidae, and similar caterpillars.

californiensis Cushman. Calif., Ariz. Hosts: *Malacosoma californicum* (Pack.); M. *constrictum* (Stretch).
Iseropus californiensis Cushman, 1940. Ent. Soc. Wash. Proc. 42: 58. ♂ ♀.

coelebs (Walsh). Atlantic to 100° W. in Transit. and U. Austr. Zones. Hosts: *Malacosoma americanum* (F.); *Hemerocampa leucostigma* (A. and S.); *Notolophus antiquus* (L.); *Olene* sp.; *Halisidota caryae* (Harr.). Parasites: *Bathythrix pimplae* (How.); *Itoplectis conquisitor* (Say); *Mastrus americanus*

(How.); *Dibrachys cavus* (Wlkr.).
Ichneumon inquisitor Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 71. ♀. Preocc.
Pimpla coelebs Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 141. ♂.
Pimpla inquisitoriella Dalla Torre, 1901. Cat. Hym., v. 3, p. 435. N. name for *I. inquisitor*.
Biology: Howard, 1897. U. S. Dept. Agr., Div. Ent. Bul. 7: 16.—Howard, 1897. U. S. Dept. Agr., Div. Ent. Tech. Ser. 5: 8–17, 23, 31, 54.—Howard, 1898. Ent. Soc. Ont. Ann. Rpt. 28: 88.—Fiske, 1903. N. H. Agr. Expt. Sta. Tech. Bul. 6: 198–200.—Cushman, 1926. Ent. Soc. Wash. Proc. 28: 33.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 143.
Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 245, 246.—Pratt, 1939. Ent. Soc. Amer. Ann. 32: 735.

orgyiae (Ashmead). Calif. Host: *Hemerocampa vetusta* var. *gulosa* (Hy. Edw.).
Ictoplectis (!) ***orgyiae*** Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 213. ♂ ♀.

stercorator brunneifrons (Viereck). Transcont. in Canad. and Transit. Zones. *I. stercorator stercorator* (F.) is European. Hosts: *Hemerocampa leucostigma* (A. and S.); *H. oslari* (Barnes); *H. pseudotsugata* McD.; *Notolophus antiquus badius* (Hy. Edw.); *Simyra henrici* (Grote); *Ctenucha virginica* (Charp.).
Pimpla (Epiurus) brunneifrons Viereck, 1909. Ent. News. 20: 291. ♂ ♀.
Iseropus brunneifrons septentrionalis Cushman, 1940. Ent. Soc. Wash. Proc. 42: 56. ♂ ♀.
Biology: Patch, 1921. Maine Agr. Expt. Sta. Bul. 302: 318 (as *coelebs*, misdet.)

Genus TROMATOBIA Foerster

Tromatobia Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 164.
Type: ***Pimpla variabilis*** Holmgren. Desig. by Viereck, 1914.

Members of this genus parasitize the egg cocoons of spiders.

lateralis (Cresson). Ga.; Cuba, Puerto Rico, Haiti, Mona Isl.
Clistopyga? lateralis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 34. ♂ ♀.

ovivora scriptifrons (Cresson), n. status. Transcont. in Canad., Transit., and U. Austr. Zones. *T. ovivora ovivora* (Boheman) occurs in Europe. *Pimpla viduiformis* Viereck was described from New Haven, Conn., but the types are from a spider egg sac on nursery stock imported from Europe, and represent the European subspecies.
Pimpla scriptifrons Cresson, 1870. Amer. Ent. Soc. Trans. 3: 148. ♀.
Pimpla vidua Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 140. ♀.
Pimpla defensator Davis, 1898. Amer. Ent. Soc. Trans. 24: 267. ♀.
Pimpla landerensis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 243. ♀.
Apechtis rugulosa Morley, 1914. Rev. Ichn. Brit. Mus. v. 3, p. 34. ♀.
Biology: Shaw, 1930. N. Y. Ent. Soc. Jour. 38: 465.

rufopectus (Cresson). Conn. and N. Y. to Fla., west to Ohio. Host: Eggs of *Argiope aurantia* (Lucas). Parasite: *Theronia bicincta* (Cress.).
Pimpla rufopectus Cresson, 1870. Amer. Ent. Soc. Trans. 3: 148. ♀.
Biology: Champlain, 1922. Psyche 29: 97.
Morphology: Pratt, 1939. Ent. Soc. Amer. Ann. 32: 735.

variabilis (Holmgren). Transcont. in Canad. and Transit. Zones; Europe.
Pimpla variabilis Holmgren, 1854. Svenska Vetensk. Akad. Handl. 75: 88. ♂ ♀.
Pimpla rufovariata Cresson, 1870. Amer. Ent. Soc. Trans. 3: 149. ♀. N. syn.
Polysphincta cingulata Provancher, 1875. Nat. Canad. 7: 141. ♀.
Pimpla rufovariegata Dalla Torre, 1901. Cat. Hym., v. 3, p. 448. *Lapsus* for *rufovariata*.

zonata (Davis). Atlantic to 100° W. in U. Austr. and L. Austr. Zones. Host: *Epeira undata* (Oliv.), eggs.
Clistopyga zonata Davis, 1895. Ent. News 6: 198. ♀.
Biology: Hubbell, 1932. Ent. Soc. Amer. Ann. 35: 504.

Genus ZAGLYPTUS Foerster

Zaglyptus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 166.
Type: ***Polysphincta varipes*** Gravenhorst. Included by Woldstedt, 1877.

Members of this genus parasitize the egg coccons of spiders.

varipes incompletus (Cresson), n. status. Transcont. in Canad., Transit., and U. Austr. Zones. *Z. varipes varipes* (Gravenhorst) is European.
Pimpla incompleta Cresson, 1870. Amer. Ent. Soc. Trans. 3: 147. ♀.
Pimpla animosa Cresson, 1872. Amer. Ent. Soc. Trans. 4: 165. ♀.
Polysphincta Rubricapensis Provancher, 1873. Nat. Canad. 5: 470. ♀.
Cylloceria Lemoinei Provancher, 1873. Nat. Canad. 5: 471. ♂.
Polysphincta pimploides Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 145. ♀.
Polysphincta rufigaster Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 447. ♀.
Polysphincta spinosa Davis, 1898. Amer. Ent. Soc. Trans. 24: 369. ♀.

Genus PSEUDORHYSSA Merrill

Pseudorhyssa Merrill, 1915. Amer. Ent. Soc. Trans. 41: 150.
Type: ***Pseudorhyssa sternata*** Merrill. Orig. desig.

sternata Merrill. Transcont. in Canad. Zone.
Pseudorhyssa sternata Merrill, 1915. Amer. Ent. Soc. Trans. 41: 150. ♀.

Genus DELOMERISTA Foerster

Delomerista Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 164.
Type: ***Pimpla mandibularis*** Gravenhorst. Desig. by Ashmead, 1900.

The species of this genus are parasites in the cocoons of sawflies.

diprionis Cushman. Transcont. in Canad. and Transit. Zones. Hosts: *Diprion* (*Gilpinia*) *hercyniae* (Htg.); *D. similis* (Htg.); *Neodiprion abietis* (Harr.); *N. tsugae* Midd.
Delomerista diprionis Cushman, 1939. Wash. Acad. Sci. Jour. 29: 398. ♂ ♀.
Biology: Furniss and Dowden, 1941. Jour. Econ. Ent. 34: 49, 50, 51.

novita (Cresson). Transcont. in Transit. Zone.
Pimpla novita Cresson, 1870. Amer. Ent. Soc. Trans. 3: 146. ♀.
Morphology: Pratt, 1939. Ent. Soc. Amer. Ann. 32: 735, 737.

texana (Cresson). N. H. (alpine tops of Mt. Madison and Mt. Washington); north. Europe. The type is recorded from Texas, probably in error.
Pimpla texana Cresson, 1870. Amer. Ent. Soc. Trans. 3: 145. ♀.

Genus PERITHOUS Holmgren

Perithous Holmgren, 1859. Öfvers. Svenska Vetensk. Akad. Förh. 16: 123.
Type: ***Ephialtes albicinctus*** Gravenhorst. Desig. by Viereck, 1914.

The species of *Perithous* are parasites of Sphecidae nesting in twigs.

divinator (Rossi). N. Y., Ohio; Europe. Apparently introduced from Europe.
Ichneumon divinator Rossi, 1790. Fauna Etrusca, v. 2, p. 48. ♀.

pleuralis Cresson. Transcont. in Transit. and U. Austr. Zones. Host: *Pemphredon concolor* Say.
Perithous pleuralis Cresson, 1868. Canad. Ent. 1: 36. ♀.
Pimpla neomexicana Viereck, 1903. Amer. Ent. Soc. Trans. 29: 87. ♀.
Biology: Champlain, 1922. Psyche 29: 97.—Rheinhard, 1929. Nature Mag. 13: 155, 156, 157.

Tribe POLYSPHINCTINI

Members of this tribe are external parasites on the bodies of spiders.

Revisions: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 13–38.—Cushman, 1921.U S. Natl. Mus. Proc. 60 (4): 6–14.

Genus CLISTOPYGA Gravenhorst

Clistopyga Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 132.
Type: ***Ichneumon incitator*** Fabricius. Desig. by Westwood, 1839.
Ichneumonoglypta Blanchard, 1941. Soc. Ent. Argentina Rev. 11: 9. N. syn.
Type: ***Ichneumonoglypta lopez-richinii*** Blanchard. Orig. desig.
Revision: Cushman, 1921. U. S. Natl. Mus. Proc. 60 (4): 7–14.

atrata Cushman. Ariz., Calif.
Clistopyga atrata Cushman, 1921. U. S. Natl. Mus. Proc. 60 (4): 14. ♂ ♀.

canadensis Provancher. Atlantic to Cont. Divide. Transit. Zone.
Polysphincta acuta Provancher, 1880. Nat. Canad. 12: 44. ♀.
Clistopyga Canadensis Provancher, 1880. Nat. Canad. 12: 46. ♀.

maculifrons Cushman. Tex.
Clistopyga maculifrons Cushman, 1921. U. S. Natl. Mus. Proc. 60 (4): 10. ♀.

manni Cushman. Calif. (Pacific Grove).
Clistopyga manni Cushman, 1921. U. S. Natl. Mus. Proc. 60 (4): 12. ♀.

nigrifrons Cushman. Calif. (Mt. View).
Clistopyga nigrifrons Cushman, 1921. U. S. Natl. Mus. Proc. 60 (4): 11. ♀.

pulchripicta Ashmead. Tex.
Clistopyga pulchripicta Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 448. ♀.

recurva (Say). Atlantic to 100° W., U. Austr. and L. Austr. Zones.
Anomalon recurvus Say, 1836. Boston Jour. Nat. Hist. 1: 243. ♂ ♀.
Clistopyga annulipes Cresson, 1870. Amer. Ent. Soc. Trans. 3: 150. ♀.

Genus ACRODACTYLA Haliday

Barypus Haliday, 1837. *In* Curtis, Guide Arrang. Brit. Ins., ed. 2, p. 94. Preocc.
Type: ***Barypus degener*** Haliday. Desig. by Westwood, 1839.
Acrodactyla Haliday, 1838. Mag. Nat. Hist., v. 2, p. 117. N. name.
Symphylus Foerster, 1871. Naturh. Ver. Rheinlande Verh. 28: 105. Preocc.
Type: ***Symphylus hadrodactylus*** Foerster. Orig. desig.
Polemophthorus Schulz, 1911. Zool. Ann. 4: 22. N. name for *Symphylus*.

There are several undescribed Nearctic species of this genus.

Genus COLPOMERIA Holmgren

Colpomeria Holmgren, 1859. Öfvers. Svenska Vetensk. Akad. Förh. 16: 126.
Type: ***Colpomeria laevigata*** Holmgren. Monob.

kincaidii (Ashmead). Transcont. in Transit. Zone. Shaded vegetation in wet spots. Host: *Tetragnathus* sp.
Zaglyptus kincaidii Ashmead, 1894. U. S. Dept. Agr. Insect Life 6: 260. ♂ ♀.
Colpomeria mellithorax Cushman, 1920. U. S. Natl. Mus. Proc. 58: 17, 19. ♀.

Genus LAUFEIA Tosquinet

Laufeia Tosquinet, 1903. Soc. Ent. de Belg. Mém. 10: 381.
Type: ***Laufeia mira*** Tosquinet. Monob.

slossonae (Davis), n. comb. Transcont. in Transit. Zone.
Polysphincta slossonae Davis, 1898. Amer. Ent. Soc. Trans. 24: 368. ♀.

Genus SCHIZOPYGA Gravenhorst

Schizopyga Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 125.
Type: ***Schizopyga podagrica*** Gravenhorst. Desig. by Westwood, 1839.

frigida Cresson. Transcont. in Canad. and Transit. Zones.
Schizopyga frigida Cresson, 1870. Amer. Ent. Soc. Trans. 3: 159. ♀.

Polysphincta pontiaci Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey. Bul. 22: 317. ♂.

pulchra Walley. N. C., N. J., N. Y., Ont., Man. Marshes.
Schizopyga pulchra Walley, 1936. Canad. Ent. 68: 20. ♀.

Genus POLYSPHINCTA Gravenhorst

Polysphincta Gravenhorst, 1829. Ichn. Europaea v. 3, p. 112.
Type: ***Polysphincta tuberosa*** Gravenhorst. Desig. by Westwood, 1839.
Revision: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 20–28.

albipes Cresson. Fla. (Rock Ledge).
Polysphincta albipes Cresson, 1880. U. S. Dept. Agr. Ann. Rpt. for 1879, p. 208. ♂.

burgessii Cresson. Transcont. in Transit. Zone.
Polysphincta Burgessii Cresson, 1870. Amer. Ent. Soc. Trans. 3: 149. ♂.
Polysphincta rufopectus Provancher, 1875. Nat. Canad. 7: 140. ♀.
Polysphincta (Polysphincta) venatrix DeGant, 1933. U. S. Natl. Mus. Proc. 82: 4. ♀.

koebelei Howard. Calif. (Santa Cruz Mts.). Host: *"Epeira"* sp.
Polysphincta (Zaglyptus) koebelei Howard, 1892. Ent. Soc. Wash. Proc. 2: 293. ♀.

limata Cresson. Transcont. in Huds., Canad., and Transit. Zones.
Polysphincta limata Cresson, 1870. Amer. Ent. Soc. Trans. 3: 150. ♀.
Polysphincta Bruneti Provancher, 1873. Nat. Canad. 5: 471. ♀.
Polysphincta (Polysphincta) elongata Cushman, 1920. U. S. Natl. Mus. Proc. 58: 25. ♀.

pallipes Holmgren. Transcont. in Transit. Zone; Europe. Host: *Epeira foliata* (Fourc.).
Polysphincta pallipes Holmgren, 1860. Svenska Vetensk. Akad. Handl. 3: 33. ♂ ♀.
Polysphincta (Zatypota) strigis Howard, 1892. Ent. Soc. Wash. Proc. 2: 291. ♀. N. syn.

Genus HYMENOEPIMECIS Viereck

Epimecis Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 112. Preocc.
Type: ***Epimecis bicolor*** Brullé. Desig. by Ashmead, 1900.
Hymenoepimecis Viereck, 1912. U. S. Natl. Mus. Proc. 42: 149. N. name.

wiltii (Cresson). Atlantic to 100° W. U. Austr. and Transit Zones. Host: *Necscona arabesca* (Walck.).
Epimecis Wiltii Cresson, 1870. Amer. Ent. Soc. Trans. 3: 143. ♀.
Biology: Shannon, 1913. Ent. Soc. Wash. Proc. 15: 162.

Genus OXYRRHEXIS Foerster

Oxyrrhexis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 166.
Type: ***Cryptus carbonator*** Gravenhorst. Included by Schmiedeknecht, 1888.

carbonator texana (Cresson), n. status. Transcont. in Transit. and U. Austr. Zones. *O. carbonator carbonator* (Gravenhorst) occurs in Europe. Host: *Steatoda borealis* (Hentz).
Polysphincta texana Cresson, 1870. Amer. Ent. Soc. Trans. 3: 149. ♀.
Polysphincta vicina Provancher, 1873. Nat. Canad. 5: 470. ♂.
Polysphincta bicarinata Davis, 1898. Amer. Ent. Soc. Trans. 24: 368. ♂. Preocc.

Genus ZABRACHYPUS Cushman

Zabrachypus Cushman, 1920. U. S. Natl. Mus. Proc. 58: 37.
Type: ***Zabrachypus primus*** Cushman. Orig. desig.

primus Cushman. Transcont. in Transit. and U. Austr. Zones. Dry woods.
Zabrachypus primus Cushman, 1920. U. S. Natl. Mus. Proc. 58: 17, 37. ♀

Genus ZATYPOTA Foerster

Zatypota Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 166.
Type: ***Ichneumon percontatorius*** Mueller. Desig. by Viereck, 1914.
Polysphinctopsis Habermehl, 1917. Ztschr. Wiss. Ins.-Biol. 13: 167.
Type: ***Polysphincta eximia*** Schmiedeknecht. Monob.
Revision: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 29–36.

alborhombarta (Davis). Fla., Va.
Clistopyga alborhombarta Davis, 1895. Ent. News 6: 198. ♀.

bohemani (Holmgren), n. comb. Mont. (Whitehall); Europe.
Polysphincta Bohemani Holmgren, 1860. Svenska Vetensk. Akad. Handl. 3 (10); 30. ♀.

dictynae (Howard). Transcont. in Transit. and U. Austr. Zones. Host: *Dictyna foliacea* (Hentz).
Polysphincta dictynae Howard, 1888. U. S. Dept. Agr. Insect Life 1: 107. ♂.
Polysphincta minuta Davis, 1898. Amer. Ent. Soc. Trans. 24: 369. ♀.

nigriceps (Walsh). Transcont. in U. Austr. and L. Austr. Zones.
Polysphincta nigriceps Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 144. ♂ ♀.
Polysphincta nigrita Walsh, 1873. Acad. Sci. St. Louis Trans. 3: 144. ♂.
Clistopyga nigrocephala Davis, 1898. Amer. Ent. Soc. Trans. 24: 369. ♂.
Polysphincta (Zatypota) braucheri Cushman, 1920. U. S. Natl. Mus. Proc. 58: 16, 33. ♂ ♀.
Polysphincta (Zatypota) californiensis Cushman, 1920. U. S. Natl. Mus. Proc. 58: 34. ♀.
Polysphincta (Zatypota) crosbyi Cushman, 1920. U. S. Natl. Mus. Proc. 58: 35. ♂ ♀.

parva (Cresson). Mass., R. I., N. Y., N. J., Pa., Va., Ill. U. Austr. Zone.
Glypta? parva Cresson, 1870. Amer. Ent. Soc. Trans. 3: 155. ♀.

percontatoria (Müller). Atlantic to 100° W. in Canad. and Transit. Zones; Europe.
Ichneumon percontatorius Müller, 1776. Zool. Danicae Prodromus, p. 154.
Polysphincta theridii Howard, 1892. Ent. Soc. Wash. Proc. 2: 292. ♂. N. syn.
Polysphincta granulosa Davis, 1898. Amer. Ent. Soc. Trans. 24: 369. ♀.

Tribe EPHIALTINI (=ECHTHROMORPHINI)

Members of this tribe are parasites of a great variety of pupae and prepupae of Lepidoptera. There is little host specificity and adults have a corresponding variability in size. The species of *Itoplectis* tend to be secondary parasites.

Key to genera: Townes, 1940. Ent. Soc. Amer. Ann. 33: 288–289.

Genus COCCYGOMIMUS Saussure

Pimpla of authors, not of the genotype.
Ephialtes of certain American authors, not of Schrank.
Coccygomimus Saussure, 1892. *In* Grandidier, Hist. Madagascar, v. 20, Hym. 1, pl. 14, fig. 12.
Type: ***Coccygomimus madecassus*** Saussure. Monob.
Lissotheronia Cameron, 1905. Spolia Zeylanica, v. 3, p. 139.
Type: ***Lissotheronia flavipes*** Cameron. Monob.
Pimplidea Viereck, 1914. U. S. Natl. Mus. Bul. 83: 117.
Type: ***Pimpla pedalis*** Cresson. Orig. desig.
Opodactyla Seyrig, 1932. Acad. Malagache Mém. 11: 60.
Type: ***Pimpla (Opodactyla) waterloti*** Seyrig. Orig. desig.
Revisions: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 330–339.—Townes, 1940. Ent. Soc. Amer. Ann. 33: 298–310 (eastern Nearctic species).

aequalis (Provancher). Atlantic to 100° W. in Transit., U. Austr., and L. Austr. Zones. Woods of all kinds. Hosts: *Eurukuttarus confederatus* (Grote); *Coleophora salmani* Heinr.; *Thamnosphecia pyri* (Harr.); *Dichomeris marginella* (F.); *Carpocapsa pomonella* (L.); *Grapholitha molesta* (Busck); *Mineola* sp.; *Coryphista meadii* (Pack.); *Tolype velleda* (Stoll).

Pimpla annulipes of many authors, not of Brullé.

Pimpla aequalis Provancher, 1880. Nat. Canad. 12: 36. ♀.

Meniscus Ashmeadii Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 430. ♀.

Pimpla conquisitor var. ***rufuscula*** Davis, 1898. Amer. Ent. Soc. Trans. 24: 368. ♀.

Biology: Breakey, 1930. Ent. Soc. Amer. Ann. 23: 187.—Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.—Townes, 1940. Ent. Soc. Amer. Ann. 33: 308.

aquilonius (Cresson). Transcont. in Canad. Zone and north. part of Transit. Zone; Eurasia. Hosts: *Coleophora salmani* Heinr.; *Spilonota ocellana* (D. and S.)

Pimpla aquilonia Cresson, 1870. Amer. Ent. Soc. Trans. 3: 145. ♂.

Meniscus marginatus Provancher, 1883. Nat. Canad. 14: 15. ♀.

Bassus cylindricus Provancher, 1889. Addit. Corr. Faune Ent. Canada Hym., p. 111. ♂ ♀.

Itoplectis exareolata Ashmead, 1901. Psyche, 9: 147. ♀.

Pimpla yakutatensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 200. ♂.

Biology: Townes, 1940. Ent. Soc. Amer. Ann. 33: 303.

ellopiae (Harrington). B. C., Wash., Oreg., Calif., Ariz. Transit. Zone. Host: *Lambdina fiscellaria somniaria* (Hlst.).

Pimpla ellopiae Harrington, 1892. Canad. Ent. 24: 99. ♂ ♀.

inflatus (Townes). Atlantic to 100° W. in Transit., U. Austr., and L. Austr. Zones. Hosts: *Synanthedon pictipes* (G. and R.); *Carpocapsa pomonella* (L.); *Grapholitha molesta* (Busck); *Gretchena bolliana* (Sling.); *Salebria tenebrosella* (Hulst.).

Pimpla inflata Townes, 1940. Ent. Soc. Amer. Ann. 33: 286, 306. ♂ ♀.

longigenalis (Cushman). Calif. (in Alpine Zone of Yosemite Park).

Ephialtes* (*Ephialtes*) *longigenalis Cushman, 1920. U. S. Natl. Mus. Proc. 58: 332. ♀.

maurus (Cresson). Ohio, N. C., Ga., Fla., Tex. L. Austr. Zone.

Pimpla maura Cresson, 1870. Amer. Ent. Soc. Trans. 3: 145. ♀.

nudus (Townes). Vt., N. Y., N. J., Pa., Ohio, Mich., Minn. Hosts: *Pyrausta nubilalis* (Hbn.); diprionid.

Pimpla nuda Townes, 1940. Ent. Soc. Amer. Ann. 33: 286, 306. ♀.

pedalis (Cresson). Transcont. in Canad. and Transit. Zones. Hosts: *Archips argyrospila* (Wlkr.) *Argyrotaenia mariana* (Fern.); *Lambdina fiscellaria fiscellaria* (Guen.); *Protoboarmia porcelaria* (Guen.); *Malacosoma americanum* (F.); *M. disstria* Hbn.; *M. fragile* (Stretch); *Hemerocampa leucostigma* (A. and S.); *Notolophus antiquus badius* (Hy. Edw.); *Nygmia phaeorrhea* (Don.); *Olene plagiata pinicola* Dyar; *Porthetria dispar* (L.); *Stilpnotia salicis* (L.); *Heterocampa guttivitta* (Wlkr.); *Cirphis unipuncta* (Haw.); *Halisidota maculata* (Harr.); *Isia isabella* (A. and S.); *Diprion* (*Gilpinia*) *hercyniae* (Htg.); *Neodiprion* sp.

Pimpla pedalis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 268. ♂.

Biology: Provancher, 1873. Nat. Canad. 5: 450.—Weed, 1900. N. H. Agr. Expt. Sta. Bul. 75: 123.—Patch, 1908. Maine Agr. Expt. Sta. Bul. 161: 140.—Howard and Fiske, 1911. U. S. Dept. Agr., Bur. Ent. Bul. 91: 137–138, 144, 147–149, 237–239.—Schedl, 1931. Ztschr. Angew. Ent. 18: 268–270.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 142.—Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.—Townes, 1940. Ent. Soc. Amer. Ann. 33: 286, 301.

punicipes (Cresson). S. Dak., Tex., Ariz., Calif.; Mexico, Venezuela, Peru, Hawaii. Host: *Pectinophora gossypiella* (Saund.).

Pimpla punicipes Cresson, 1873. Acad. Nat. Sci. Phila. Proc. 25: 398. ♀.

Pimpla hawaiiensis Cameron, 1887. Manchester Lit. and Philos. Soc. Mem. (3) 10: 239. ♂. N. syn.

Pimpla puniceipes Dalla Torre, 1901. Cat. Hym., v. 3, p. 446. Emend.

sanguinipes (Cresson). Pacific to Cont. Divide in Canad., Transit., and U. Austr. Zones. The type is recorded from Bosque Co., Tex., presumably in error. Hosts: *Anarsia lineatella* (Zell.); *Carcina quercana* (F.); *Choristoneura fumiferana* (Clem.); *Ancylis comptana* (Froel.); *Carpocapsa pomonella* (L.); *Rhyacionia frustrana bushnelli* (Busck); *Zophodia convolutella* (Hbn.); *Desmia funeralis* (Hbn.); *Phlyctaenia rubigalis* (Guen.); *Tholeria reversalis* (Guen.); *Lambdina* sp.; *Prochoerodes forficaria catenulata* Grote.; *Malacosoma fragile* (Stretch); *Hemerocampa oslari* (Barnes); *H. pseudotsugata* McD.; *Alabama argillacea* (Hbn.); *Peridroma margaritosa* (Haw.); *Diacrisia virginica* (F.); *Hemileuca maia* (Drury); *H. oliviae* Ckll.

Pimpla sanguinipes Cresson, 1872. Amer. Ent. Soc. Trans. 4: 165. ♀.

Pimpla (Pimpla) erythropus Viereck, 1909. Ent. News 20: 291. ♀.

Ephialtes (Ephialtes) sanguineipes Cushman, 1920. U. S. Natl. Mus. Proc. 58: 335. Lapsus for *sanguinipes*.

Biology: Pack, 1930. Utah Agr. Expt. Sta. Bul. 216: 10–11.

silvicola (Walley). B. C., Wash., Oreg.

Pimpla silvicola Walley, 1941. Canad. Ent. 73: 164. ♂ ♀.

sodalis (Ruthe). Alaska, Man., Greenland; Iceland, north. Europe. Host: *Argynnis* sp.

Pimpla sodalis Ruthe, 1859. Stettin. Ent. Ztg. 20: 371. ♂ ♀.

Pimpla Nordenskiöldii Holmgren, 1872. Öfvers. Svenska Vetensk. Akad. Förh. 29, No. 6: 97. ♀.

tenuicornis (Cresson). Atlantic to Cont. Divide in Canad. and Transit. Zones.

Pimpla tenuicornis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 267. ♀.

Biology: Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.

Genus EPHIALTES Schrank

Ephialtes Shrank, 1802. Fauna Boica, v. 2, p. 316.
Type: ***Ichneumon compunctor*** Linnaeus. Monob.

Apechthis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 164.
Type: (***Pimpla rubata*** (!) Gravenhorst)=[***Ichneumon***] ***rufatus*** (Gmelin). Desig. by Ashmead, 1900.

Apechtis Thomson, 1889. Opusc. Ent., fasc. 12, p. 1410.
Type: ***Apechtis flavonotata*** Holmgren. Desig. by Viereck, 1914.

Revisions: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 351–355.—Townes, 1940. Ent. Soc. Amer. Ann. 33: 310–314 (eastern Nearctic species).

annulicornis (Cresson). Mass., N. Y., Ont., and Mich. south to N. C.; also Tex.

Pimpla annulicornis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 147. ♂ ♀.

Biology: Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.

componotus (Davis). Idaho (Moscow.).

Pimpla componotus Davis, 1898. Amer. Ent. Soc. Trans. 24: 367. ♂.

ontario (Cresson). Transcont. in Canad. Zone. Host: *Choristoneura fumiferana* (Clem.); *Argyrotaenia mariana* (Fern.); *Peronea variana* (Fern.); *Dioryctria reniculella* (Grote); *Lambdina fiscellaria fiscellaria* (Guen.); *L. fiscellaria lugubrosa* (Hulst); *L. fiscellaria somniaria* (Hulst); *Nepytia canosaria* (Wlkr.).

Pimpla ontario Cresson, 1870. Amer. Ent. Soc. Trans. 3: 146. ♂.

Morphology: Peck, 1937. Canad. Jour. Res., Sect. D, Zool. Sci. 15: 248.

pacificus (Cushman). Oreg. (Portland). Host: *Notolophus antiquus* (L.).

Apechthis pacificus Cushman, 1920. U. S. Natl. Mus. Proc. 58: 353. ♂ ♀.

picticornis (Cresson). Transcont. in Canad. and Transit. Zones. Hosts: Tortricid pupa, *Spilonota ocellana* (D. and S.); *Acrobasis juglandis* (LeB.).

Pimpla picticornis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 146. ♂.

Biology: Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.

Genus ITOPLECTIS Foerster

Itoplectis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 164.
Type: ***Ichneumon maculator*** Fabricius. Desig. by Morley, 1913.

Nesopimpla Ashmead, 1906. U. S. Natl. Mus. Proc. 30: 180.
Type: ***Nesopimpla naranyae*** Ashmead. Monob.

Revisions: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 340–351.—Townes, 1940. Ent. Soc. Amer. Ann. 33: 314–322 (eastern Nearctic species).

behrensii (Cresson). Oreg. to south. Calif. Hosts: *Recurvaria milleri* Busck; *Phryganidea californica* Pack. Parasite: *Mastrus aciculatus* (Prov.).
Pimpla Behrensii Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 377. ♂ ♀.
Taxonomy: Burke and Herbert, 1920. U. S. Dept. Agr. Farmers' Bul. 1076: 10.—Essig, 1926. Ins. of West. N. Amer., p. 798.

clavicornis Thomson. N. Y., Pa., Ohio, Minn.; Europe. Hosts: *Phobocampe* spp.
Pimpla (Itoplectis) clavicornis Thomson, 1889. Opusc. Ent., fasc. 13, p. 1409. ♀.

conquisitor (Say). Atlantic to Rocky Mts. in Transit., U. Austr., and L. Austr. Zones. Hosts: *Fumaria casta* (Pall.); *Thyridopteryx ephemeraeformis* (Haw.); *Coleophora malivorella* Riley; *C. pruniella* Clem.; *C. salmani* Heinr.; *Thamnosphecia scitula* (Harr.); *Anthophila pariana* (Clerck); *Psilocorsis* sp.; *Epermenia cicutaella* Kearf.; *Anacampsis inocuella* (Zell.); *Dichomeris marginella* (F.); *Gnorimoschema operculella* (Zell.); *Choristoneura fumiferana* (Clem.); *Archips argyrospila* (Wlkr.); *A. cerasivorana* (Fitch); *A. rosaceana* (Harr.); *Argyrotaenia mariana* (Fern.); *A. pinatubana* (Kearf.); *A. quercifoliana* (Fitch); *A. velutinana* (Wlkr.); *Argyrotoxa albicomana* (Clem.); *A. semipurpurana* (Kearf.); *Homona fervidana* (Wlkr.); *Acleris hastiana* (L.); *A. minuta* (Rob.); *A. variana* (Fern.); *Sparganothis pettitana* (Rob.); *Ancylis comptana* (Froel.); *Carpocapsa pomonella* (L.); *Exartema cornanum* Heinr.; *E. feriferanum* (Wlkr.); *Grapholitha molesta* (Busck); *Polychrosis viteana* (Clem.); *Rhyacionia buoliana* (Schiff.); *R. frustrana* (Comst.); *R. frustrana bushnelli* (Busck); *Spilonota ocellana* (D. and S.); *Pterophorus periscelidactylus* Fitch; *Acrobasis betulella* Hulst; *A. caryalbella* Ely; *A. caryivorella* Rag.; *A. comptoniella* Hulst; *A. juglandis* (LeBar.); *A. kearfottella* Dyar; *A. rubrifasciella* Pack.; *Mineola indigenella* (Zell.); *Diaphania hyalinata* (L.); *D. quadristigmalis* (Guen.); *Pyrausta nubilalis* (Hbn.); *Cingilia catenaria* (Drury); *Eulype hastata* (L.); *Lambdina fiscellaria fiscellaria* (Guen.); *Ennomos subsignarius* (Hbn.); *Nematocampa limbata* (Haw.); *Nepytia canosaria* (Wlkr.); *Malacosoma americanum* (F.); *M. disstria* Hbn.; *M. fragile* (Stretch); *Hemerocampa leucostigma* (A. and S.); *Notolophus antiquus* (L.); *Nygmia phaeorrhea* (Don.); *Olene leucophaea* (A. and S.); *Porthetria dispar* (L.); *Stilpnotia salicis* (L.); *Alabama argillacea* (Hbn.); *Anomis erosa* Hbn.; *Trichoplusia ni* (Hbn.); *Bleptina* sp.; *Lascoria ambigualis* (Wlkr.); *Hyphantria cunea* (Drury); *Hemileuca lucina* Hy. Edw.; *H. oliviae* Ckll.; *Nymphalis antiopa* (L.); *Vanessa cardui* (L.); *Pieris rapae* (L.); *Papilio marcellus* L.; *Apanteles melanoscelus* (Ratz.); *Rogas stigmator* (Say); *R. terminalis* (Cress.); *Campoplegidea ellopiae* Walley; *Gambrus extrematis* (Cress.); *Hyposoter fugitivus* (Say); *Iseropus coelebs* (Walsh); *Phobocampe clisiocampae* (Weed); *P. pallipes* (Prov.); Parasites: *Phobetes thyridopteryx* (Riley); *Theronia atalantae* (Poda); *Dibrachys cavus* (Wlkr.); *Coelopisthia suborbicularis* (Prov.).
Cryptus conquisitor Say, 1836. Boston Jour. Nat. Hist. 1: 232. ♀.
Cryptus pleurivinctus Say, 1836. Boston Jour. Nat. Hist. 1: 235. ♂ ♀.
Ephialtes (Itoplectis) temnopleuris Cushman, 1920. U. S. Natl. Mus. Proc. 58: 350. ♀.
Biology: Gorham, 1847. Comm. Rev. South and West 3: 539–541.—Brackett, 1865. Pract. Ent. 1: 19.—Comstock, 1879. Rpt. on Cotton Insects, p. 198–200.—Riley, 1886. U. S. Dept. Agr. Ent. Comn. Rpt. 4: 111–113.—Weed and Fiske, 1900. U. S. Dept. Agr., Div. Ent. Bul. 26: 33–34.—Weed, 1900. N. H. Agr. Expt. Sta. Bul. 75: 123.—Fiske, 1903. N. H. Agr. Expt. Sta. Tech. Bul. 6: 187–198.—Smith, 1907. N. J. Agr. Expt. Sta. Ann. Rpt. 28: 419.—Johnston, 1913. Jour. Econ. Ent. 6: 144–147.—Baird, 1918. Agr. Gaz. Canada 5: 770–771.—Cushman, 1920. U. S. Natl. Mus. Proc. 58: 347.—Criddle, 1924. Ent. Soc. Ontario Ann. Rpt. 54: 17–18.—Cushman, 1926. Ent. Soc. Wash. Proc. 28: 41.—Cushman, 1927. Jour. Agr. Res. 34: 619.—Schedl, 1931. Ztschr. Angew. Ent. 18: 258–260.—Crowell, 1932. Psyche 39: 102.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 142.—Daviault, 1935. Nat. Canad. 62: 245, 318, 319.—Haden, 1935. Univ. Del. Agr. Expt. Sta. Bul. 194: 20–35.—Doner, 1936. Ent. Soc. Amer. Ann. 29: 228.—Balduf, 1937. Ent. Soc. Wash. Proc. 39: 173.—Twinn, 1938. Ent. Soc. Ontario Ann.

Rpt. 69: 131.—Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.—Townes, 1940. Ent. Soc. Amer. Ann. 33: 286, 316.
Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 245, 452.—Pratt, 1939. Ent. Soc. Amer. Ann. 32: 731.

curticauda (Kriechbaumer). Maine, Vt., N. Y., Mont., in Canad. Zone; Europe.
Pimpla curticauda Kriechbaumer, 1887. Ent. Nachr. 13: 120. ♀.
Itoplectis brevacus Townes, 1940. Ent. Soc. Amer. Ann. 33: 315. ♀. N. syn.

evetriae Viereck. Alaska, Wash., Oreg., Calif., Mont. Hosts: *Barbara colfaxiana siskyouana* (Kearf.); *B. colfaxiana taxifoliella* (Busck); *"Evetria"* sp.; *Rhyacionia buoliana* (Schiff.); *Dioryctia cambiicola* (Dyar); *D. zimmermani* (Grote).
Itoplectis evetriae Viereck, 1913. U. S. Natl. Mus. Proc. 44: 565. ♂.
Itoplectis plesia Rohwer, 1914. Ent. Soc. Wash. Proc. 15: 182. ♀.

4-cingulatus (Provancher). Transcont. Around *Picea*, *Abies*, and *Pseudotsuga*. Abundant west of the Continental Divide. Hosts: *Hyaloscotes fragmentella* (Hy. Edw.); *Gracilaria alnivorella* Chamb.; *Coleophora salmani* Heinr.; *Euceratia castella* Wlsm.; *Anthophila pariana* (Clem.); *Carcina quercana* (F.); *Depressaria* sp.; *Anarsia lineatella* (Zell.); *Archips argyrospila* (Wlkr.); *A. rosaceana* (Harr.); *A. rosana* (L.); *Choristoneura fumiferana* (Clem.); *Argyrotaenia mariana* (Fern.); *Cnephasia longana* (Haw.); *Acleris variana* (Fern.); *Anchylopera* sp.; *Carpocapsa pomonella* (L.); *Rhyacionia buoliana* (Schiff.); *Spilonota ocellana* (D. and S.); *Platyptilia* sp.; *Lambdina fiscellaria fiscellaria* (Guen.); *L. fiscellaria lugubrosa* (Hulst); *L. fiscellaria somniaria* (Hulst); *Hemerocampa pseudotsugata* McD.; *Neodiprion tsugae* Midd.
Pimpla 4-cingulatus Provancher, 1881. Nat. Canad. 12: 38. ♀.
?***Pimpla (Itoplectis) Kolthoffi*** Aurivillius, 1890. Svenska Vetensk. Akad. Handl. Bihang. 15: 29. ♂ ♀.
Itoplectis obesus Cushman, 1917. U. S. Natl. Mus. Proc. 53: 467. ♂ ♀. N. syn.
Ephialtes (Itoplectis) latus Cushman, 1920. U. S. Natl. Mus. Proc. 58: 345. ♀.
Ephialtes (Itoplectis) leavitti Cushman, 1920. U. S. Natl. Mus. Proc. 58: 345. ♀.
Ephialtes (Itoplectis) pacificus Cushman, 1920. U. S. Natl. Mus. Proc. 58: 345. ♀. Preocc.
Ephialtes (Itoplectis) montana Cushman, 1920. U. S. Natl. Mus. Proc. 58: 346. ♀.
Ephialtes cacoeciae Viereck, 1924. Canad. Ent. 56: 64. ♂ ♀.
Ephialtes (Itoplectis) esuchus Cushman, 1924. Ent. Wash. Soc. Proc. 26: 221. N. name for *E. pacificus*.

viduata (Gravenhorst). Wash., Oreg., Calif., Idaho, Nev., Utah, Colo., Ariz., N. Mex. Transit. and Canad. Zones; Eurasia. Hosts: *Choristoneura fumiferana* (Clem.); *Archips rosaceana* (Harr.); *Malacosoma fragile* (Stretch); *Hemerocampa pseudotsugata* McD.; *Stilpnotia salicis* (L.); *Hemileuca oliviae* Ckll.; *Autographa californica* (Speyer); *Colias philodice eurytheme* Bdvl.
Pimpla viduata Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 214. ♂.
Pimpla atrocoxalis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 145. ♀.

Tribe POEMEMIINI (=EUGALTINI)

Genus DIACRITUS Foerster

Diacritus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 191.
Type: ***Mesoleptus? muliebris*** Cresson. Included by Davis, 1895.
Phidias Vollenhoven, 1898. Tijdschr. Ent. 21: 164. Preocc.
Type: ***Phidias aciculatus*** Vollenhoven. Monob.
Stenolabis Kriechbaumer, 1894. Ent. Nachr. 20: 58.
Type: (***Stenolabis cingulata*** Kriechbaumer) = [***Phidias***] ***aciculatus*** (Vollenhoven.) Monob.

muliebris (Cresson). Transcont. in Transit. Zone.
Mesoleptus? muliebris Cresson, 1868. Amer. Ent. Soc. Trans. 2: 102. ♂.
Mesoleptus variabilis Provancher, 1875. Nat. Canad. 7: 115. ♂.

Mesostenus rufipes Provancher, 1875. Nat. Canad. 7: 249, 263. ♀.
Echthrus pediculatus Provancher, 1880. Nat. Canad. 12: 99. ♀.
Mesostenus pluricinctus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 76. ♀.
Plectiscidea* (*Aperileptus*?) *contentionis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 276. ♀.
Taxonomy: Cushman, 1917. Ent. Soc. Wash. Proc. 19: 162–165.

Genus POEMENIA Holmgren

Poemenia Holmgren, 1859. Öfvers. Svenska Vetensk Akad. Förh. 16: 130.
Type: ***Poemenia notata*** Holmgren. Monob.
Calliclisis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 169.
Type: ***Ephialtes hecticus*** Gravenhorst. Desig. by Viereck, 1914.
Phthinodes Tschek, 1868. Zool.-Bot. Gesell. Wien Verh. 18: 272.
Type: ***Ephialtes hecticus*** Gravenhorst. Monob.
Euxorides Cresson, 1870. Amer. Ent. Soc. Trans. 3: 167.
Type: ***Euxorides americanus*** Cresson. Monob.
Lissonotopsis Habermehl, 1917. Ztchr. Wiss. Ins.-Biol. 13: 234, 306.
Type: (***Lissonotopsis rufa*** Habermehl) = [***Ephialtes***] ***hectica*** (Gravenhorst). Monob.
Revision: Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 448–451.

albipes (Cresson). Transcont. in Transit. and U. Austr. Zones.
Ephialtes albipes Cresson, 1870. Amer. Ent. Soc. Trans. 3: 143. ♀.
Morphology: Pratt, 1939. Ent. Soc. Amer. Ann. 32: 735.

americana (Cresson). N. Y., Mass., Pa., W. Va., N. C.
Euxorides americanus Cresson, 1870. Amer. Ent. Soc. Trans. 3: 167. ♀.

thoracica (Cresson). Oreg., Calif.
Ephialtes thoracicus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 377. ♀.

vancouveriensis (Provancher). B. C., Oreg., Calif., Sask., Colo., N. Mex.
Euxorides vancouveriensis Provancher, 1883. Addit. Corr. Faune Ent. Canada Hym., p. 369. ♀.
Ephialtes vancouverensis Harrington, 1894. Canad. Ent. 26: 249. ♀.

Genus NEOXORIDES Clément

Neoxorides Clément, 1938. Festschr. Embrik Strand, v. 4, p. 517.
Type: ***Xorides nitens*** Gravenhorst. Orig. desig.
Revision: Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 444–448.

Members of this genus are parasitic on wood-boring Coleoptera, and are collected usually on dead tree trunks.

borealis (Cresson), n. comb. Transcont. in Canad. and Transit. Zones. Hosts: *Atimia dorsalis* Lec.; *Semanotus ligenus* (F.); *Tetropium velutinum* Lec.
Xorides borealis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 167. ♀.
Xorides occidentalis Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 380. ♀.

caryae (Harrington), n. comb. N. H. south to N. C., west to Mich. Transit. and U. Austr. Zones. Host: *Saperda discoidea* F.
Xorides caryae Harrington, 1891. Canad. Ent. 23: 132. ♂ ♀.
Biology: Harrington, 1891. Canad. Ent. 23: 132.—Blackman and Stage, 1924. N. Y. State Col. Forestry, Syracuse Univ., Tech. Pub. 17: 182.

vittifrons (Cresson), n. comb. Atlantic to 100° W. in Transit. and U. Austr. Zones. Hosts: *Dicerca divaricata* (Say); *Graphisurus fasciatus* (Deg.).
Xorides vittifrons Cresson, 1868. Canad. Ent. 1: 37. ♀.
Morphology: Pratt, 1939. Ent. Soc. Amer. Ann. 32: 735.

Tribe RHYSSINI

Members of this tribe are parasitic on wood-boring Coleoptera and sawflies.

Revision: Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 416–428.

Genus RHYSSA Gravenhorst

Rhyssa Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 260.
Type: ***Ichneumon persuasorius*** Linnaeus. Desig. by Westwood, 1839.
Cryptocentrum Kirby, 1837. *In* Richardson, Fauna Bor. Amer., v. 4, p. 260.
Type: ***Cryptocentrum lineolatum*** Kirby. Monob.
Pararhyssa Walsh, 1873. Acad. Sci. St. Louis., Trans. 3: 109.
Type: ***Rhyssa persuasoria*** (Linnaeus). Desig. by Viereck, 1914.
Revision: Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 418–421.

Members of this genus are parasites of wood-boring Coleoptera and Siricidae.

alaskensis Ashmead. Alaska, B. C., Wash., Oreg., Calif., Alta., Mont., Idaho, N. Mex. Canad. Zone.
Rhyssa alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 199. ♀.
Rhyssa skinneri Viereck, 1903. Amer. Ent. Soc. Trans. 29: 86. ♀.

hoferi Rohwer. Colo.
Rhyssa hoferi Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 421. ♀.

lineolata (Kirby). Transcont. in Canad. and Transit. Zones. Hosts: *Serropalpus* sp.; *Monochamus scutellatus* (Say); *M. titillator* (F.); *Phymatodes dimidiatus* (Kby.); *Sirex edwardsii* Br.; *Urocerus albicornis* (F.); *U. cyaneus* (F.); *Xeris* sp.
Cryptocentrum lineolatum Kirby, 1837. *In* Richardson, Fauna Bor. Amer., v. 4, p. 260. ♂.
Rhyssa albomaculata Cresson, 1864. Ent. Soc. Phila. Proc. 3: 318. ♀.
Epirhyssa Crevieri Provancher, 1880. Nat. Canad. 12: 17. ♂.
Taxonomy: Morley, 1909. Ent. 42: 133.—Morley, 1910. Ent. 43: 243.
Morphology: Pratt, 1939. Ent. Soc. Amer. Ann. 32: 733.

persuasoria (Linnaeus). Transcont. in Canad. and Transit. Zones; Eurasia. Hosts: *Serropalpus* sp.; *Monochamus notatus* (Drury); *M. scutellatus* (Say); *M. titillator* (F.); *Sirex* sp.; *Xeris* sp.
Ichneumon persuasorius Linnaeus, 1758. Syst. Nat., ed. 10., v. 1, p. 562.

Genus RHYSSELLA Rohwer

Rhyssella Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 422.
Type: ***Rhyssa nitida*** Cresson. Orig. desig.
Revision: Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 422–425.

Members of this genus are parasitic on Xiphydriidae.

humida (Say). Atlantic to Ill. and Miss. Transit. and U. Austr. Zones. Hosts: *Xiphydria abdominalis* Say; *X. tibialis* Say.
Pimpla humida Say, 1836. Boston Jour. Nat. Hist. 1: 224. ♀.

nitida (Cresson). Atlantic to Iowa. Transit. Zone. Hosts: *Xiphydria canadensis* Prov.; *X. maculata* Say.
Rhyssa nitida Cresson, 1864. Ent. Soc. Phila. Proc. 3: 319. ♂.
Rhyssa canadensis Cresson, 1868. Canad. Ent. 1: 35. ♀.
Epirhyssa clavata Provancher, 1886. Addit. Corr. Faune Ent. Canad Hym., p. 115. ♀.
Biology: Kaston, 1937. Conn. Agr. Exp. Sta. Bul. 396: 359.
Morphology: Pratt, 1939. Ent. Soc. Amer. Ann. 32: 733.

Genus MEGARHYSSA Ashmead

Thalessa Holmgren, 1859. Öfvers. Svenska Vetensk. Akad. Förh. 16: 122. Preocc.
Type: (***Ichneumon clavator*** Fabricius)=***Ichneumon superba*** Schrank. Desig. by Ashmead, 1900.
Megarhyssa Ashmead, 1900. Canad. Ent. 32: 368. N. name.
Megalorhyssa Schulz, 1906. Spolia Hym., p. 115. Emend.
Eurhyssa Derksen, 1941. Ztschr. Morph. 37: 721. N. syn.
Type: ***Ichneumon superbus*** Schrank. Present desig.

Revisions: Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 425–428.—Michener, 1939. Pan-Pacific Ent. 15: 126–131.

The Nearctic species of this genus are parasites of Siricidae.

atrata (Fabricius). Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: *Tremex columba* (L.).

Ichneumon atratus Fabricius, 1781. Species Insectorum, v. 1, p. 436. ♀.

Ichnemon tenebrator Thunberg, 1822; 1824. Acad. Sci. St. Pétersburg Mém. 8: 266; 9: 322. N. name.

Rhyssa laevigata Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 78. ♂.

Biology: Harris, 1842. Insects Injurious to Vegetation, p. 391.—Walsh, 1867. Pract. Ent. 2: 118.—Walsh and Riley, 1868. Amer. Ent. 1: 77.—Harrington, 1882. Canad. Ent. 14: 82.—Lintner, 1883. Cultivator and Country Gentleman 48: 561.—Harrington, 1883. Ent. Soc. Ontario Ann. Rpt. 13: 23–24.—Harrington, 1887. Canad. Ent. 19: 206–209.—Harrington, 1888. Ent. Soc. Ontario Ann. Rpt. 18: 25.—Lintner, 1897. Cultivator and Country Gentlemen 62: 506.—Fyles, 1916. Ent. Soc. Ontario Ann. Rpt. 46: 54, 57.—Macnamara, 1916. Ent. Soc. Ontario Ann. Rpt. 46: 59.—Champlain, 1921. Ent. News 32: 241.—Blackman and Stage, 1924. N. Y. State Col. Forestry, Syracuse Univ., Tech. Pub. 17: 178.—Klugh, 1932. Amer. Photography 26: 158.—Kaston, 1937. Conn. Agr. Expt. Sta. Bul. 396: 359.—Proctor, 1938. Biol. Survey Mt. Desert Region, v. 6, p. 406.—Fattig, 1949. Ent. News 40: 69–71.

Morphology: Snodgrass, 1933. Smithsn. Inst. Misc. Collect 89 (8): 112–114.

greenei greenei Viereck. Atlantic to 100° W. in Transit., U. Austr., and northern part of L. Austr. Zones. Host: *Tremex columba* (L.).

Megarhyssa greenei Viereck, 1911. U. S. Natl. Mus. Proc. 40: 191. ♂ ♀.

Biology: Proctor, 1938. Biol. Survey Mt. Desert Region, v. 6, p. 406.—Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.—Fattig, 1949. Ent. News 40: 70–71.

Morphology: Pratt, 1939. Ent. Soc. Amer. Ann. 32: 737.

greenei n. subsp. Fla., coastal S. C.

icterosticta Michener. Colo., Utah., N. Mex.

Megarhyssa lunator icterosticta Michner, 1939. Pan-Pacific Ent. 15: 130. ♂ ♀.

macrurus macrurus (Linnaeus). Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: *Tremex columba* (L.).

Ichneumon macrurus Linnaeus, 1771. Mantissa Plantarum, v. 2, p. 540. ♀.

Ichneumon lunator Fabricius, 1781. Species Insectorum, v. 1, p. 430. ♀.

?Thalessa histrio Kriechbaumer, 1890. K. K. Naturh. Hofmus. Ann. 5: 487. ♂.

Biology: Harris, 1842. Insects Injurious to Vegetation, p. 391.—Emmons, 1854. Nat. His. N. Y. (pt. 5) v. 5, p. 194.—D'Urban, 1865. Ent. Month. Mag. 2: 71.—Riley, 1870. Amer. Ent. 2: 96, 128.—Fletcher, 1881. Ent. Soc. Ontario Ann. Rpt. 11: 67.—Harrington, 1882. Canad. Ent. 14: 82.—Harrington, 1883. Ent. Soc. Ontario Ann. Rpt. 13: 23–24.—Gade, 1884. Brooklyn Ent. Soc. Bul. 7: 103.—Lintner, 1884. Cultivator and Country Gentleman 49: 331.—Riley, 1885. Brooklyn Ent. Soc. Bul. 7: 123.—Smith, 1885. Brooklyn Ent. Soc. Bul. 7: 124.—Riley, 1886. Ent. Soc. Wash. Proc. 1: 15.—Harrington, 1887. Canad. Ent. 19: 206–209.—Lintner, 1888. N. Y. State Mus. Nat. Hist. Rpt. 41: 35–42.—Harrington, 1888. Ent. Soc. Ontario Ann. Rpt. 18: 25–27.—Riley, 1888. U. S. Dept. Agr. Insect Life 1: 168–179.—Lintner, 1889. N. Y. State Ent. Rpt. 4: 35–36.—Lintner, 1893. N. Y. State Mus. Nat. Hist. Rpt. 45: 163–166.—Lintner, 1897. Cultivator and Country Gentleman 62: 506.—Ashmead, 1900. N. J. State Bd. Agr. Ann. Rpt. 27 (sup.): 572.—Fyles, 1911. Ent. Soc. Ontario Ann. Rpt. 41: 80.—Douglas, 1912. State Ent. Ind. Ann. Rpt. 4: 105.—Baldwin, 1914. State Ent. Ind. Ann. Rpt. 6: 51.—Fyles, 1916. Ent. Soc. Ontario Ann. Rpt. 46: 54, 57.—Fyles, 1917. Ent. Soc. Ontario Ann. Rpt. 47: 28.—Barlow, 1921. Ent. News, 32: 291.—Cushman, 1926. Ent. Soc. Wash. Proc. 28: 32.—McDaniel, 1933. Mich. Agr. Expt. Sta. Spec. Bul. 238: 37.—Woodbury, 1933. Ecol. Monog. 3: 191.—Abbott, 1934. N. Y. Ent. Soc. Jour. 42: 127–133.—Abbott, 1934. Psyche 41: 238–240.—Abbott, 1937. Ent. News 47: 263–264.—Kaston, 1937. Conn. Agr. Expt. Sta. Bul. 396: 359.—Kelley, 1939. The Nature Mag.

32: 379–380.—Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.—Fattig, 1949. Ent. News 40: 69–71.

Morphology: Abbott, 1934. N. Y. Ent. Soc. Jour. 42: 127–133.—Abbott, 1934. Brooklyn Ent. Soc. Bul. 29: 39–41.—Abbott, 1935. Brooklyn Ent. Soc. Bul. 30: 10–13.—Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 237–240, 246, 247, 251.—Pratt, 1939. Ent. Soc. Amer. Ann. 32: 733.—Snodgrass, 1941. Smithsn. Inst. Misc. Collect 99 (14): 33, 34.

macrurus phaeoptila Michener. Fla., La., Tex. L. Austr. Zone.

Megarhyssa lunator phaeoptila Michener, 1939. Pan-Pacific Ent. 15: 129. ♀.

nortoni nortoni (Cresson). Pacific to Cont. Divide in Canad. and Transit. Zones. Hosts: *Sirex* sp.; *Xeris morrisoni* (Cress.).

Rhyssa nortoni Cresson, 1864. Ent. Soc. Phila. Proc. 3: 317. ♀.

Biology: Essig, 1926. Ins. of West. No. Amer., pp. 795, 796.

nortoni quebecensis (Provancher), n. status. N. S., Que., and Mich. south to N. C. Canad. Zone. Host: *Urocerus albicornis* (F.).

Thalessa Quebecensis Provancher, 1873. Nat. Canad. 5: 447. ♂ ♀.

Biology: Procter, 1938. Biol. Survey Mt. Desert Region, v. 1, p. 406.

Tribe THERONIINI

Genus THERONIA Holmgren

Theronia Holmgren, 1859. Öfvers. Svenska Vetensk. Akad. Förh. 16: 123.
Type: (***Pimpla flavicans*** Fabricius)=[***Ichneumon***] ***atalantae*** (Poda). Monob.

Pseudacoenites Kriechbaumer, 1892. Ent. Nachr. 18: 219.
Type: (***Pseudacoenites moravicus*** Kriechbaumer)=[***Pimpla***] ***laevigata*** (Tschek). Monob.

Neotheronia Krieger, 1898. Naturf. Gesell. Leipzig Sitzber. 14–15: 119.
Type: ***Theronia tolteca*** Cresson. Orig. desig.

Epimecoideus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 52.
Type: ***Epimecoideus apicalis*** Ashmead. Orig. desig.

Erythrotheronia Cameron, 1905. Spolia Zeylanica, v. 3, p. 134.
Type: ***Erythrotheronia flavolineata*** Cameron. Monob.

Orientotheronia Morley, 1913. Fauna Brit. India, Hym., v. 3, p. 146.
Type: ***Orientotheronia rufescens*** Morley. Orig. desig.

Liotheronia Enderlein, 1919. Gesell. Naturf. Freunde Sitzber., p.147.
Type: ***Liotheronia kriegeri*** Enderlein. Orig. desig.

Revision: Townes, 1940. Ent. Soc. Amer. Ann. 33: 289–298.

The species of *Theronia* are usually primary or secondary parasites of the pupae of Lepidoptera.

atalantae (Poda). Transcont. in Canad., Transit., and U. Austr. Zone; Eurasia. Hosts: *Choristoneura fumiferana* (Clem.); *Ennomos subsignarius* (Hbn.); *Oreta rosea* (Wlkr.); *Malacosoma americanum* (F.); *M. disstria* Hbn.; *M. fragile* (Stretch); *Hemerocampa leucostigma* (A. and S.); *H. pseudotsugata* McD.; *Nygmia phaeorrhea* (Don.); *Olene leucophaea* (A. and S.); *Porthetria dispar* (L.); *Stilpnotia salicis* (L.); *Samia cecropia* (L.); *Nymphalis californica* (Bdvl.); *Neophasia menapia* (F. and F.); *Enicospilus americanus* (Christ); *Gambrus extrematis* (Cress.); *Hyposoter fugitivus* (Say); *Itoplectis conquisitor* (Say). Parasite: *Dibrachys cavus* (Wlkr.).

Ichneumon Atalantae Poda, 1761. Insecta Musei Graecensis, p. 106.

Pimpla fulvescens Cresson, 1865. Ent. Soc. Phila. Proc. 4: 268. ♂.

Theronia rufescens Taylor, 1884. Canad. Ent. 16: 92. Lapsus for *T. fulvescens*.

Theronia fulvescens var. ***mellipennis*** Viereck, 1903. Amer. Ent. Soc. Trans. 29: 87. ♀.

Theronia atalantae var. ***americana*** Krieger, 1906. Ztschr. System. Hym. Dipt. 6: 240. ♂ ♀.

Biology: Weed and Fiske, 1900. U. S. Dept. Agr., Div. Ent. Bul. 26: 33.—Fiske and Thompson, 1909. Jour. Econ. Ent. 2: 455–457.—Howard and Fiske, 1911. U. S. Dept. Agr., Bur. Ent. Bul. 91: 137, 141, 142, 144, 147–149, 236–237,

304.—Aldrich, 1912. Jour. Econ. Ent. 5: 87–88.—Evenden, 1924. The Timberman 25 (May): 54.—Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 30.—Townes, 1940. Ent. Soc. Amer. Ann. 33: 286, 293.
Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci.15: 245, 246, 248, 251, 252.

bicincta (Cresson). Ga., Fla.; Cuba. Host: *Tromatobia rufopectus* (Cress.).
Pimpla bicincta Cresson, 1865. Ent. Soc. Phila. Proc. 4: 38. ♀.

hilaris (Say). Atlantic to 100° W. in Transit. and U. Austr. Zones. Hosts: *Halisidota caryae* (Harr.); *H. maculata* (Harr.): *Proteides clarus* (Cram.).
Ichneumon hilaris Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 71. ♂.
Pimpla melanocephala Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 99. ♀. Preocc.
Biology: Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.—Townes, 1940. Ent. Soc. Amer. Ann. 33: 291.
Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 245, 246, 248, 251, 252.—Pratt, 1939. Ent. Soc. Amer. Ann. 32: 731, 737.

septemtrionalis (Krieger). Md. to Ga., west to Mo. and La. U. Austr. and L. Austr. Zones.
Neotheronia septemtrionalis Krieger, 1905. Ztschr. System. Hym. Dipt. 5: 305. ♂.
Neotheronia winnamanae Viereck, 1913. U. S. Natl. Mus. Proc. 44: 567. ♀.
Biology: Townes, 1940. Ent. Soc. Amer. Ann. 33: 290.

Tribe BRACHYCYRTINI

Genus BRACHYCYRTUS Kriechbaumer

Brachycyrtus Kriechbaumer, 1880. Zool. Mineral Ver. Regensburg Corres. 34: 161.
Type: *Brachycyrtus ornatus* Kriechbaumer. Monob.
Proterocryptus Ashmead, 1906. U. S. Natl. Mus. Proc. 30: 174.
Type: *Proterocryptus nawaii* Ashmead. Monob.
Vakau Cheesman, 1928. Ann. Mag. Nat. Hist. (10) 1: 189.
Type: *Vakau taitensis* Cheesman. Orig. desig.
Brachycyrtomorpha Kreibohm de la Vega, 1940. Rev. Industrial y Agricola de Tucuman 3: 170.
Type: *Brachycyrtomorpha crossi* Kreibohm de la Vega. Monob.

Members of this genus are parasitic in the cocoons of Chrysopidae.

chrysopae Walley. B. C., Ariz., Ohio, Md. Drier habitats. Host: Chrysopid.
Brachycyrtus chrysopae Walley, 1940. Canad. Ent. 72: 86. ♀.

pretiosus Cushman. Fla. (Hillsboro Co.).
Brachycyrtus pretiosus Cushman, 1936. U. S. Natl. Mus. Proc. 84: 19. ♂ ♀.

Tribe LABENINI

Keys to genera: Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 406.

Genus LABENA Cresson

Labena Cresson, 1864. Ent. Soc. Phila. Proc. 3: 399.
Type: *Cryptus grallator* Say. Desig. by Viereck, 1914.
Caryoecus Walsh, 1866. Pract. Ent. 1: 30.
Type: *Mesochorus fuscipennis* Brullé. Monob.
Dyseidopus Kriechbaumer, 1890. K. K. Naturh. Hofmus. Ann. 5: 489.
Type: *Dyseidopus sericeus* Kriechbaumer. Monob.

Members of this genus are parasitic on wood-boring Coleoptera. Most are Neotropic, but several occur in the southern parts of the Nearctic Region.

grallator (Say). Atlantic to 100° W. in U. Austr. and L. Austr. Zones. Hosts: *Agrilus arcuatus* (Say); *Chrysobothris femorata* (Oliv.); *Thrincopyge*

alacris Lec.; *Chion cinctus* (Drury); *Pseudibidion unicolor* (Rand.); *Saperda puncticollis* Say; *Stenophenus notatus* (Oliv.); *Lixus scrobicollis* Boh.; *Pissodes strobi* (Peck).

Cryptus grallator Say, 1836. Boston Jour. Nat. Hist. 1: 236. ♀.

Mesochorus fuscipennis Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 250. ♀.

Labena apicalis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 402. ♂.

Labena grallatrix Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 309. Emend.

Labena confusa Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 411. ♀.

Labena confusa var. ***minor*** Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 413. ♀.

tinctipennis Rohwer. Calif., Ariz. Chaparral.

Labena tinctipennis Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 409. ♀.

Genus GROTEA Cresson

Grotea Cresson, 1864. Ent. Soc. Phila. Proc. 3: 397.
Type: ***Grotea anguina*** Cresson. Monob.
Revision: Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 414–416.

Members of this genus are parasitic on Aculeata nesting in twigs. They are southern in distribution, and occur along the edges of shrubbery and thickets.

anguina Cresson. Atlantic to Cont. Divide in U. Austr. and L. Austr. Zones; also Ariz. Hosts: *Ceratina calcarata* Robt.; *C. dupla* Say.

Grotea anguina Cresson, 1864. Ent. Soc. Phila. Proc. 3: 398. ♂ ♀.

Biology: Graenicher, 1905. Ent. News 16: 43–49.—Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 43.—Cushman, 1926. Ent. Soc. Wash. Proc. 28: 40.—Rau, 1928. Ent. Soc. Amer. Ann. 21: 383.

Morphology: Pratt, 1939. Ent. Soc. Amer. Ann. 32: 733.

californica Cresson. Oreg., Calif.

Grotea californica Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 370. ♀.

Tribe XORIDINI

Members of this tribe are parasites of wood-boring Coleoptera.

Genus XORIDES Latreille

Xorides Latreille, 1809. Hist. Nat. Crust. Ins., v. 4, p. 4.
Type: ***Ichneumon indicatorius*** Latreille. Monob.

Xylonomus Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 819.
Type: ***Ichneumon irrigator*** Fabricius. Desig. by Curtis, 1831.

Sterotrichus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 169.
Type: (***Xylonomus pilicornis*** Gravenhorst) = [***Ichneumon***] ***fuligator*** (Thunberg). Desig. by Viereck, 1914.

Gonophonus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 169.
Type: ***Gonophonus mokrzeckii*** Kokujev. Included by Kokujev, 1902.

Moerophora Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 169.
Type: ***Xylonomus rufipes*** Gravenhorst. Included by Woldstedt, 1881.

Sichelia Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 169.
Type: ***Xylonomus filiformis*** Gravenhorst. Desig. by Viereck, 1914.

Rhadina Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 170. Preocc.
Type: ***Xylonomus ater*** Gravenhorst. Included by Schmiedeknecht, 1888.

Perissocerus Smith, 1877. Zool. Soc. London Proc. 1877: 412. Preocc. N. syn.
Type: ***Perissocerus plumicornis*** Smith. Monob.

Cyanoxorides Cameron, 1903. Straits Br. Roy. Asiatic Soc. Jour. 39: 141.
Type: ***Cyanoxorides brookii*** Cameron. Monob.

Spiloxorides Cameron, 1903. Straits Br. Roy. Asiatic Soc. Jour. 39: 143.

Type: ***Spiloxorides ruficeps*** Cameron. Monob.

Macrosterotrichus Kokujev, 1903. Rev. Russ. Ent. 3: 287.
Type: ***Xylonomus (Macrosterotrichus) jakovlevi*** Kokujev. Monob.

Caenostoma Cameron, 1905. Straits Br. Roy. Asiatic Soc. Jour. 44: 125.
Type: ***Caenostoma filicornis*** Cameron. Monob.

Periceros Schulz, 1906. Spolia Hym., p. 99. N. name for *Perissocerus*.

Rhadinopimpla Schulz, 1911. Zool. Ann. 4: 23. N. name for *Rhadina*.

Ahyborhyssa Enderlein, 1919. Gesell Naturf. Freunde Berlin Sitzber., p. 152.
Type: ***Epirhyssa annulicornis*** Cameron. Orig. desig.

Lavaudenia Seyrig, 1932. Acad. Malagache Mém. 11: 92.
Type: ***Lavaudenia mirabilis*** Seyrig. Orig. desig.

Xylonomimus Clément, 1938. Festschr. Embrik Strand, v. 4, p. 539.
Type: ***Xorides gracilicornis*** Gravenhorst. Orig. desig.

Neoxylonomus Clément, 1938. Festschr. Embrik Strand, v. 4, p. 566. Preocc.
Type: ***Neoxylonomus Strandi*** Clément. Orig. desig.

Revision: Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 429–444.

The species of *Xorides* are usually collected on dead tree trunks.

albopictus (Cresson). Atlantic to 100° W. in Transit. and U. Austr. Zones. Hosts: *Agrilus* sp.; *Dicerca lurida* (F.); *Neoclytus acuminatus* (F.); *Saperda discoidea* F.; *S. tridentata* Oliv.

Xylonomus albopictus Cresson, 1870. Amer. Ent. Soc. Trans. 3: 168. ♀.

Xorides canadensis Provancher, 1875. Nat. Canad. 7: 248. ♂.

Xylonomus (Moerophora) duplicatus Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 356. ♂.

Biology: Kaston, 1937. Conn. Agr. Expt. Sta. Bul. 396: 356.—Proctor, 1938. Biol. Survey Mt. Desert Region, v. 6, p. 407.

Morphology: Pratt, 1939. Ent. Soc. Amer. Ann. 32: 737.

californicus (Cresson). B. C., Wash., Oreg., Calif., Mont., Idaho, N. Mex. Hosts: *Alaus oculatus* (L.), *Buprestis laeviventris* (Lec.), *Chalcophora angulicollis* (Lec.).

Xylonomus californicus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 380. ♀.

Xylonomus catomus Davis, 1898. Amer. Ent. Soc. Trans. 24: 372. ♀.

callidus (Provancher). Atlantic to 100° W. in Transit. and U. Austr. Zones. Hosts: *Chrysobothris femorata* (Oliv.); *Dircaea quadrimaculata* (Say); *Astylopsis macula* (Say).

Xylonomus callidus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 119. ♀.

Xylonomus pulcher Ashmead, 1889. U. S. Natl. Mus. Proc. 12: 450. ♀.

Aplomerus nasonii Davis, 1895. Amer. Ent. Soc. Trans. 22: 32. ♂.

Biology: Blackman and Stage, 1924. N. Y. Col. Forestry Tech. Pub. 17: 180.

cincticornis (Cresson). B. C., Wash., Oreg., Idaho, Wyo., Colo., N. Mex. Host: ?*Anoplodera chrysocoma* (Kby.).

Xylonomus cincticornis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 288. ♀.

Xylonomus (Moerophora) modestus Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 358. ♂.

eastoni (Rohwer). Mass., Conn.

Xylonomus (Moerophora) eastoni Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 356. ♀.

frigidus (Cresson). Transcont. in Canad. and Huds. Zones.

Xylonomus frigidus Cresson, 1870. Amer. Ent. Soc. Trans. 3: 168. ♀.

Xylonomus (Xylomonus) plesius Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 354. ♀.

Xylonomus (Moerophora) yukonensis Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 355. ♀.

harringtoni (Rohwer). Que., Ont., N. H., Vt., N. Y., in Canad. Zone.

Xylonomus canadensis Harrington, 1891. Canad. Ent. 23: 134. ♂ ♀ Preocc.

Xorides harringtoni Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 443. N. name.

humeralis humeralis (Say). Transcont. in Transit. and U. Austr. Zones. Host: *Phymatodes varius* (F.).
Anomalon humeralis Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 74. ♀.
Xylonomus australis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 167. ♀. N. syn.
Xylonomus Lavallensis Provancher, 1874. Nat. Canad. 6: 59. ♀.

humeralis piceatus (Rohwer), n. status. Fla.
Xylonomus (Moerophora) piceatus Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 357. ♀.

insularis (Cresson). B. C., Wash., Oreg., Calif., Colo. Hosts: Buprestid; *Atimia dorsalis* Lec.; *Hemicallidium amethystinum* (Lec.); *Melanophila drummondi* (Kby.); *Semanotus ligneus* (F.); *Tetropium cinnamopterum* Kby.; *T. velutinum* Lec.
Poemeria (!) ***insularis*** Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 380. ♀.

maudae (Davis). Oreg., Calif.
Xylonomus maudae Davis, 1895. Amer. Ent. Soc. Trans. 22: 32. ♀.

neoclyti (Rohwer). Ariz. Transit. Zone. Host: *Neoclytus caprea* (Say).
Moerophora neoclyti Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 223. ♂.

rileyi (Ashmead). Atlantic to 100° W. in U. Austr. Zone. Hosts: *Anoplodera nitens* Foerster; *Phymatodes aereus* (Newm.); *Romaleum atomarium* (Drury); *Xylotrechus colonus* (F.).
Xylonomus rileyi Ashmead, 1889. U. S. Natl. Mus. Proc. 12: 450. ♀.
Xylonomus (Xylonomus) lepturae Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 534. ♀.

ruficoxis (Rohwer). Fla. (Apalachicola).
Xylonomus (Xylonomus) ruficoxis Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 354. ♀.

stigmapterus floridanus (Ashmead). S. C., Ga., Fla., in L. Austr. Zone.
Xylonomus floridanus Ashmead, 1889. U. S. Natl. Mus. Proc. 12: 451. ♀.

stigmapterus stigmapterus (Say). Atlantic to Cont. Divide in Transit. and U. Austr. Zones; also Alaska (Eklutma). Host: *Anoplodera proxima* (Say).
Acoenitus stigmapterus Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, app., p. 325. ♀.
Morphology: Pratt, 1939. Ent. Soc. Amer. Ann. 32: 735, 737.

Genus ODONTOCOLON Cushman

Odontomerus Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 851. Preocc. Type: ***Ichneumon dentipes*** Gmelin. Desig. by Westwood, 1839.
Odontocolon Cushman, 1942. Ent. Soc. Wash. Proc. 44: 179. N. name.
Revision: Cushman, 1930. U. S. Natl. Mus. Proc. 77 (3): 1–15.

abdominale (Cresson). Colo., Wyo.
Odontomerus abdominalis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 289. ♀.

aethiops (Cresson). Alta., Idaho, Colo., Calif. Host: Cerambycid in *Pinus contorta*.
Odontomerus aethiops Cresson, 1865. Ent. Soc. Phila. Proc. 4: 289. ♂ ♀.

albotibiale (Bradley). Maine and Que. south to Va., west to Mich.; also Idaho, Ariz.
Odontomerus albotibialis Bradley, 1918. Brooklyn Ent. Soc. Bul. 13: 103. ♀.
?Odontomerus striatus Cushman, 1930. U. S. Natl. Mus. Proc. 77 (3): 14. ♀. Preocc.
?Odontocolon aciculatus Cushman, 1942. Ent. Soc. Wash. Proc. 44: 182. N. name for *O. striatus*.

atripes (Rohwer). Que. and Maine south to N. C., west to Mich.
Odontomerus atripes Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 358. ♂ ♀.

bicolor (Cresson). Ga., Tex., "Pa."
Odontomerus bicolor Cresson, 1870. Amer. Ent. Soc. Trans. 3: 169. ♀.

brevicaudus (Cushman). Alta., B. C., Oreg., Wyo.
Odontomerus brevicaudus Cushman, 1930. U. S. Natl. Mus. Proc. 77 (3): 7. ♀.

canadense (Provancher). Que. to N. C., in Canad. Zone. Host: *Tetropium* sp.
Odontomerus Canadensis Provancher, 1877. Nat. Canad. 9: 16. ♀.
Odontomerus tibialis Cushman, 1930. U. S. Natl. Mus. Proc. 77 (3): 4, 11. ♂ ♀.
Taxonomy: Cushman, 1942. Ent. Soc. Wash. Proc. 44: 182.

dichrous (Rohwer). B. C., Wash., Oreg., Calif., Idaho.
Odontomerus dichrous Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 361. ♀.

mellipes (Say). Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: *Parandra brunnea* (F.).
Anomalon mellipes Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 75. ♀.
Odontomerus errans Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 360. ♀.

polymorphum Cushman. Wash. (Seattle). Host: Anobiid.
Odontocolon polymorphum Cushman, 1942. Ent. Soc. Wash. Proc. 44: 180. ♂ ♀.

punctatum (Cushman). Idaho (Priest River). Host: *Leptura obliterata* Hald.
Odontomerus punctatus Cushman, 1930. U. S. Natl. Mus. Proc. 77 (3): 12. ♀.

punctulatum (Thomson). Alaska; Europe.
Odontomerus punctulatus Thomson, 1877. Opusc. Ent. fasc. 8, p. 777. ♀.
Odontomerus alaskensis Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 360. ♀.

strangaliae (Rohwer). Que. to Va.
Odontomerus strangaliae Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 158. ♀.

vicinum (Cresson). Transcont. in Transit. Zone.
Odontomerus vicinus Cresson, 1870. Amer. Ent. Soc. Trans. 3: 168. ♂.

Genus APLOMERUS Provancher

Platysoma Provancher, 1885. Canad. Ent. 17: 117. Preocc.
Type: ***Platysoma tibialis*** Provancher. Monob.
Aplomerus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 117. N. name.
Anodontomerus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 61.
Type: ***Aplomerus tibialis*** Provancher. Orig. desig.
Haplomerus Dalla Torre, 1901. Cat. Hym., v. 3, p. 392. Emend.
Revision: Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 453–454.

buprestivorus Rohwer. Oreg. (Ashland). Host: Buprestid.
Aplomerus buprestivorus Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 453. ♀.

lineatulus (Say). Atlantic to 100° W. in Transit. and U. Austr. Zones.
Anomalon lineatulus Say, 1836. Boston Jour. Nat. Hist. 1: 244. ♂.
Aplomerus foutsi Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 454. ♀.
Aplomerus decorus Viereck, 1926. Canad. Ent. 58: 55. ♀.
Taxonomy: Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 157.

tibialis (Provancher). B. C., Calif.
Platysoma tibialis Provancher, 1885. Canad. Ent. 17: 115. ♀.

Tribe ACAENITINI

Members of this tribe are parasites of wood-boring Coleoptera, and are usually collected on dead tree trunks.

Revision: Cushman and Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 503–523.

Genus COLEOCENTRUS Gravenhorst

Coleocentrus Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 437.
Type: ***Ichneumon excitator*** Poda. Desig. by Westwood, 1839.
Macrocoleus Desvignes, 1850. Ent. Soc. London Trans. (N. S.) 1: 13.
Type: (***Macrus longiventris*** Gravenhorst) = [***Ichneumon***] ***excitator*** (Poda). Desig. by Viereck, 1914.
Revision: Cushman, 1920. U. S. Natl. Mus. Proc. 57: 504–514.

flavipes (Provancher). Que. and N. H. south to N. C., west to Mich.
Acoenites flavipes Provancher, 1874. Nat. Canad. 6: 80. ♀.
Acoenites Canadensis Provancher, 1880. Nat. Canad. 12: 10. ♂.
Coleocentrus minor Cushman, 1920. U. S. Natl. Mus. Proc. 57: 507. ♀.
Coleocentrus niger Cushman, 1920. U. S. Natl. Mus. Proc. 57: 508. ♀. N. syn.
Morphology: Pratt, 1939. Ent. Soc. Amer. Ann. 32: 733.

harringtoni Cushman. Ont., N. Y., Mich.
Coleocentrus canadensis Harrington, 1892. Canad. Ent. 25: 29. ♀. Preocc.
Coleocentrus harringtoni Cushman, 1920. U. S. Natl. Mus. Proc. 57: 509. N. name.

manni Cushman. B. C., Wash., Oreg., Idaho.
Coleocentrus manni Cushman, 1920. U. S. Natl. Mus. Proc. 57: 512. ♂ ♀.

occidentalis Cresson. B. C., Wash., Oreg., Calif., Idaho, in Transit. Zone.
Coleocentrus occidentalis Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 376. ♀.

pettiti Cresson. Atlantic to 100° W. in Canad. and Transit. Zones.
Coleocentrus Pettiti Cresson, 1868. Canad. Ent. 1: 35. ♀.
Coleocentrus Quebecensis Provancher, 1874. Nat. Canad. 6: 79. ♀.

pulchripennis Cushman. Calif. (Tuolumne Co.).
Coleocentrus pulchripennis Cushman, 1920. U. S. Natl. Mus. Proc. 57: 512. ♀.

rufocoxatus Pratt. N. H., Vt., Que., Ont.
Coleocentrus rufocoxatus Pratt, 1936. Brooklyn Ent. Soc. Bul. 31: 11. ♀.

rufus Provancher. Maine and Que. south to N. C., west to Mich.
Coleocentrus rufus Provancher, 1876. Nat. Canad. 8: 316. ♀.
Coleocentrus similis Cushman, 1920. U. S. Natl. Mus. Proc. 57: 514. ♂ ♀.

Genus MESOCLISTUS Foerster

Mesoclistus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 168.
Type: *Acoenites rufipes* Gravenhorst. Included by Schmiedeknecht, 1888.

An undescribed Nearctic species occurs in Alaska (Mt. McKinley National Park).

Genus AROTES Gravenhorst

Arotes Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 446.
Type: *Arotes albicinctus* Gravenhorst. Monob.
Sphalerus Kriechbaumer, 1878. Ent. Nachr. 4: 41.
Type: (*Sphalerus bifasciatus* Kriechbaumer) = *Arotes albicinctus* Gravenhorst. Monob.
Revision: Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 515–521.

amoenus Cresson. Atlantic to 100° W. in Transit. and U. Austr. Zones.
Arotes amoenus Cresson, 1868. Canad. Ent. 1: 34. ♀.
Tropistes elegans Provancher, 1874. Nat. Canad. 6: 80. ♂.
Morphology: Pratt, 1940. N. Y. Ent. Soc. Jour. 48: 155–193.

decorus (Say). Atlantic to 100° W. in Transit. and U. Austr. Zones. Hosts: *Tomoxia bidentata* (Say); *Xylotrechus colonus* (F.).
Acaenitus decorus Say, 1836. Boston Jour. Nat. Hist. 1: 248. ♀ (♂ misdet.).

formosus Cresson. Atlantic to 100° W. in Transit. Zone. Hosts: *Bellamira scalaris* (Say); *Strangalepta vittata* (Oliv.).
Arotes formosus Cresson, 1868. Canad. Ent. 1: 34. ♂.

maurus Rohwer. B. C. (Mission).
Arotes maurus Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 517. ♀.

melleus (Say). N. Y., N. J., Ind.
Acaenitus melleus Say, 1836. Boston Jour. Nat. Hist. 1: 249. ♀.

occiputalis Cresson. N. Y. & R. I. south to S. C., west to Mich. U. Austr. Zone. Host: *Strangalina bicolor* (Swed.).
Arotes occiputalis Cresson, 1869. Amer. Ent. Soc. Trans. 2: 260. ♂.
Arotes apicatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 366. ♀.

rupinsulensis (Cresson). Ill.
Acoenitus rupinsulensis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 143. ♀.

vicinus Cresson. Maine, Que., S. Dak., and Idaho, south to Va. and Tex. Host: *Strangalepta vittata* (Oliv.).
Arotes vicinus Cresson, 1869. Amer. Ent. Soc. Trans. 2: 260. ♂.
Arotes venustus Cresson, 1869. Amer. Ent. Soc. Trans. 2: 260. ♂ ♀.
Arotes superbus Provancher, 1874. Nat. Canad. 6: 81. ♂ ♀.

Subfamily TRYPHONINAE

The eggs of the species of this subfamily are attached to the skin of the host by a stalk (by other structures in some Cteniscini) and the parasite larva completes its development in the host cocoon. The Phytodietini and Eclytini parasitize mostly lepidopterous larvae, whereas the rest of the tribes parasitize sawfly larvae.

Tribe STILBOPINI

Genus STILBOPS Foerster

Stilbops Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 163.
Type: ***Pimpla vetula*** Gravenhorst. Desig. by Ashmead, 1900.
Aphanoroptrum Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 168.
Type: ***Pimpla abdominalis*** Gravenhorst. Included by Schmiedeknecht, 1888.
Aphanorhoptra Dalla Torre, 1901. Cat. Hym. v. 3, p. 419. Emend.
Aphanorhoptrum Schulz, 1906. Spolia Hym., p. 122. Emend.

An undescribed Nearctic species occurs in Maryland.

Tribe ADELOGNATHINI

Members of this tribe are gregarious external parasites on tenthredinid larvae.

Genus ADELOGNATHUS Holmgren

Adelognathus Holmgren, 1855. Svenska Vetensk. Akad. Handl. 1: 196.
Type: ***Adelognathus brevicornis*** Holmgren. Desig. by Viereck, 1912.
Synaema Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 201.
Type: ***Adelognathus brevicornis*** Holmgren. Desig. by Viereck, 1912.

americanus Cushman. N. H. (top of Mt. Washington).
Adelognathus americanus Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 2. ♀.

brevicornis Holmgren. N. Y., Que.; Europe.
Adelognathus brevicornis Holmgren, 1855. Svenska Vetensk. Akad. Handl. 1: 197. ♂ ♀.

flavopictus Davis. Transcont. in Transit. and Canad. Zones.
Adelognathus flavopictus Davis, 1897. Amer. Ent. Soc. Trans. 24: 242. ♂ ♀.

pallipes (Gravenhorst). Transcont. in Transit. Zone; Europe.
Plectiscus pallipes Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 981. ♀.
Catalytus pallipes Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 419. ♂ ♀. Preocc.

Hemiteles pallidipes Dalla Torre, 1902. Cat. Hym., v. 3, p. 660. Emend. of *C. pallipes*.
Adelognathus persimilis Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 3. N. name for *C. pallipes*.

Genus CNEMISCHYS Foerster

Cnemischys Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 201.
Type: *Adelognathus* (*Cnemischus*) *pilosus* Thomson. Desig. by Townes, 1944.
Cnemischus Thomson, 1888. Opusc. Ent., fasc. 12, p. 1277.
Type: *Adelognathus* (*Cnemischus*) *pilosus* Thomson. Desig. by Townes, 1944.

An undescribed Nearctic species of this genus occurs in New York.

Genus PAMMICRA Foerster

Pammicra Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 181.
Type: *Hemiteles dorsalis* Gravenhorst. Included by Dalla Torre, 1901.
Pammicrus Thomson, 1883. Opusc. Ent., fasc. 9, p. 880.
Type: *Hemiteles dorsalis* Gravenhorst. Monob.

dorsalis (Gravenhorst). Transcont. in Transit. Zone; Europe.
Hemiteles dorsalis Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 838. ♂ ♀.
Hemiteles tener Provancher, 1874. Nat. Canad. 6: 333. ♂.
Notomeris glabrosus Davis, 1897. Amer. Ent. Soc. Trans. 24: 242. ♀.
Adelognathus deganti Cushman, 1933. U. S. Natl. Mus. Proc. 82 (14): 14. ♀.

Tribe PHRUDINI

Genus PHRUDUS Foerster

Subgenus PHRUDUS Foerster

Phrudus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 196.
Type: *Phrudus monilicornis* Bridgman. Desig. by Viereck, 1914.
Phrudus Bridgman, 1886. Ent. Soc. London Trans., p. 361. Preocc.
Type: *Phrudus monilicornis* Bridgman. Monob.
Ktenostilpnus Strobl, 1901. Ver. Stiermark Mitt. 37: 256.
Type: (*Ktenostilpnus aequearticulatus* Strobl)=*?Phrudus monilicornis* Bridgman. Monob.
Vendolius Roman, 1914. Arkiv för Zool. 9 (2): 35.
Type: (*Vendolius stilpninus* Roman)=*Phrudus monilicornis* Bridgman. Monob.

dakota Cushman. S. Dak. (Spearfish).
Phrudus dakota Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13): 17. ♀.

Subgenus MENGERSENIA Schmiedeknecht

Orona Cameron, 1905. Invertebrata Pacifica 1: 131. Preocc.
Type: *Orona petiolaris* Cameron. Monob.
Mengersenia Schmiedeknecht, 1907. Hym. Mitteleurop., p. 606.
Type: *Mengersenia paradoxa* Schmiedeknecht. Monob.
Hambergiella Roman, 1909. Naturw. Unters. Sarekgebirges, v. 4, p. 359.
Type: *Hambergiella sinuata* Roman. Monob.

exarealatus Cushman. N. Y. (Cranberry Lake).
Phrudus exarealatus Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13): 19. ♀.

petiolaris (Cameron). Calif. (near Stanford Univ.).
Orona petiolaris Cameron, 1903. Invertebrata Pacifica 1: 131. ♀.

Tribe PHYTODIETINI

The members of this tribe are parasites of caterpillars. The egg is attached to the host by a stalk and most of the larval development occurs after the host spins its cocoon or makes its pupal cell in the ground.

Genus PHYTODIETUS Gravenhorst

Phytodietus Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 928.
Type: ***Phytodietus astutus*** Gravenhorst. Desig. by Westwood, 1840.
Phytodiaetus Agassiz, 1846. Nomencl. Zool., Index Univ., p. 291. Emend.
Euctenopus Ashmead, 1900. Linn. Soc. N. S. Wales, Proc. 25: 351.
Type: ***Euctenopus novazealandicus*** Ashmead. Monob.
Doratistes Seyrig, 1932. Acad. Malagache Mém. 11: 27.
Type: ***Phytodietus (Doratistes) absyrtinus*** Seyrig. Orig. desig.
Revision: Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 460–468.

Members of this genus are common parasites of smaller Lepidoptera. Many host records have been published but because of the uncertain accuracy of the parasite determinations only verified records are included below.

burgessi (Cresson). Atlantic to 100° W. in Transit. and U. Austr. Zones.
Tryphon Burgessi Cresson, 1868. Amer. Ent. Soc. Trans. 2: 105. ♂.
Phytodietus plesia Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 465. ♀. N. syn.

californicus Cresson. Wash., Calif., Colo.
Phytodietus californicus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 380. ♀.

clypearius Ashmead. Alaska, Wyo.
Phytodietus clypearius Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 195. ♂ ♀.
Phytodietus flavifrons Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 196. ♂.

facialis Rohwer. N. J., La., Tex. Hosts: *Acrobasis comptoniella* Hulst; hickory bud moth.
Phytodietus facialis Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 462. ♀.

fumiferanae Rohwer. B. C., Oreg., Wyo., Colo., Ariz. Host: *Choristoneura fumiferana* (Clem.).
Phytodietus fumiferanae Rohwer, 1922. Canad. Ent. 54: 155. ♂ ♀.

parvus Rohwer. Calif. (Siskiyou Co.).
Phytodietus parvus Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 463. ♀.

pleuralis Cresson. Atlantic to Colo., Ariz. and Tex. Transit. and U. Austr. Zones. Host: *Acleris minuta* (Rob.).
Phytodietus pleuralis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 266. ♂.

pulcherrimus (Cresson). Atlantic to Cont. Divide in Transit. and U. Austr. Zones. Hosts: *Loxostege obliteralis* Wlkr.; *L. similalis* (Guen.); *L. sticticalis* (L.); *Phlyctaenia tertialis* (Guen.).
Mesoleptus pulcherrimus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 101. ♂.
Phytodietus distinctus Cresson, 1870. Amer. Ent. Soc. Trans. 3: 166. ♀.
Phytodietus zonatus Provancher, 1874. Nat. Canad. 6: 79. ♀.
Mesostenus nobilis Provancher, 1882. Nat. Canad. 13: 363. ♀.
Mesoleius telarius Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 106. ♀.
Ctenopelma pulchra Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 198. ♂.
Biology: Balduf, 1929. Ohio Jour. Sci. 29: 233, 234.

vulgaris Cresson. Transcont. in Transit., Canad., and Huds. Zones. Hosts: *Argyrotaenia pinatubana* (Kearf.); *Archips argyrospila* (Wlkr.).
Phytodietus vulgaris Cresson, 1870. Amer. Ent. Soc. Trans. 3: 166. ♂ ♀.
Mesoleius annulatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 106. ♀.
Biology: Fernald, 1891. Hatch Expt. Sta. Mass. Agr. Col. Bul. 12: 9.

Genus NETELIA Gray

Revision: Townes, 1939. Lloydia 1: 168–231.
Morphology: Whitmarsh, 1910. Ent. Soc. Amer. Ann. 3: 198, 204–208.
Biology: Riley, 1869. Ins. Mo. Ann. Rpt. 1: 89.—Cushman, 1913. Ent. Soc. Wash. Proc. 15: 155–157.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 143, 144.

Members of this genus have a formidable sting. They are nocturnal or crepuscular and are often attracted to lights. Because of similar habits and general appearance they are frequently confused with the Ophionini.

Subgenus PAROPHELTES Cameron

Paropheltes Cameron, 1907. Bombay Nat. Hist. Soc. Jour. 17: 1011.
Type: ***Paropheltes flavolineatus*** Cameron. Monob.

alaskensis (Ashmead). Alaska, Alta., Wyo.
Paniscus alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 237. ♂.

albovariegata (Provancher). Que., N. Y., Ohio, Ill., S. Dak.
Paniscus albovariegatus Provancher, 1874. Nat. Canad. 6: 106. ♂.

barberi (Cushman). Transcont. in Transit. Zone.
Paniscus pallens var. ***barberi*** Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 40. ♂ ♀.

ciliata Townes. Calif. (San Diego and Laguna Beach).
Netelia (Paropheltes) ciliata Townes, 1939. Lloydia 1: 180. ♂.

macroglossa Townes. B. C., Nev.
Netelia (Paropheltes) macroglossa Townes, 1939. Lloydia 1: 179. ♂.

picta Townes. Nev.
Netelia (Paropheltes) picta Townes, 1939. Lloydia 1: 181. ♂.

radiata Townes. Calif., Ariz., Kans.
Netelia (Paropheltes) radiata Townes, 1939. Lloydia 1: 180. ♂.

rimata Townes. B. C., Calif.
Netelia (Paropheltes) rimata Townes, 1939. Lloydia 1: 180. ♂.

serrata Townes. N. Y., Ont., Iowa, S. Dak.
Netelia (Paropheltes) serrata Townes, 1939. Lloydia 1: 180. ♂.

tarsata (Brischke). Que. to S. C.; Alta.; Europe.
Paniscus tarsatus Brischke, 1880. Naturf. Gesell. Danzig Schrift. 4 (4): 138. ♂ ♀.

Subgenus PARABATES Foerster

Parabates Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 150.
Type: ***Parabatus nigricarpus*** Thomson. Desig. by Enderlein, 1912.

monticola (Cushman). N. H., N. C., Tenn., B. C. Transit. Zone.
Parabates monticola Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 20. ♀.

Subgenus TOXOCHILUS Townes

Toxochilus Townes, 1939. Lloydia 1: 182.
Type: ***Paniscus clypeatus*** Cushman. Orig. desig.

caviverticalis (Cushman). Colo.
Paniscus caviverticalis Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 29. ♀.

clypeata (Cushman). Va., W. Va., Ill., Iowa, S. Dak., Colo., N. Mex.
Paniscus clypeatus Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 29. ♂ ♀.

glabra Townes. Kans.
Netelia (Toxochilus) glabra Townes, 1939. Lloydia 1: 183. ♂ ♀.

magniceps Townes. S. Dak., Mo., Kans., Colo., Ariz.
Netelia (*Toxochilus*) *magniceps* Townes, 1939. Lloydia 1: 184. ♂ ♀.

mystace Townes. Ariz. (Baboquivari Mts.).
Netelia (*Toxochilus*) *mystace* Townes, 1939. Lloydia 1: 184. ♂.

pulchra (Cushman). N. Mex. (Roswell).
Paniscus pulcher Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 25. ♂ ♀.

ultima Townes. S. Dak., N. Mex.
Netelia (*Toxochilus*) *ultima* Townes, 1939. Lloydia 1: 183. ♂ ♀.

Subgenus PROSTHODOCIS Enderlein

Prosthodocis Enderlein, 1912. Stettin. Ent. Ztg. 73: 107, 141.
Type: *Paniscus antefurcalis* Szépligeti. Orig. desig.

exserta (Cushman). R. I. and N. Y. south to Ala., west to Mo.
Parabates exsertus Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 47. ♀.

Subgenus NETELIA Gray

Paniscus of authors, not of Schrank.
Netelia Gray, 1860. Ann. Mag. Nat. Hist. (3) 5: 341.
Type: *Paniscus inquinatus* Gravenhorst. Orig. desig.
Bucheckerius Schulz, 1906. Spolia Hym., p. 280.
Type: *Bucheckerius perforatus* Schulz. Monob.

acuminata Townes. Atlantic to 100° W., also Ariz. and south. Calif. Transit., U. Austr., and L. Austr. Zones.
Netelia (*Netelia*) *acuminata* Townes, 1939. Lloydia 1: 206. ♂ ♀.

affinis Townes. Nev., Wash. (Tieton).
Netelia (*Netelia*) *affinis* Townes, 1939. Lloydia 1: 206. ♂.

appendiculata (Provancher). Que.
Paniscus appendiculatus Provancher, 1874. Nat. Canad. 6: 105. ♂.

blantoni Townes. R. I., N. Y., Pa., Va.
Netelia (*Netelia*) *blantoni* Townes, 1939. Lloydia 1: 214. ♂.

brevicornis brevicornis (Cushman). Atlantic to Cont. Divide in Transit., U. Austr. and L. Austr. Zones.
Paniscus brevicornis Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 27. ♂ ♀.

brevicornis suturalis Townes. Alta., B. C., Idaho, Mont., Oreg., Utah.
Netelia (*Netelia*) *brevicornis suturalis* Townes, 1939. Lloydia 1: 201. ♂ ♀.

brevicornis temporalis (Cushman). South. Calif. from San Diego to Paraiso Springs and as far inland as Cuyana Valley.
Paniscus temporalis Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 30. ♀.

brunnea Townes. N. Y., Pa., Md., Va. Transit. and U. Austr. Zones.
Netelia (*Netelia*) *brunnea* Townes, 1939. Lloydia 1: 209. ♂.

californica (Cushman). Vancouver, B. C. to San Diego, Calif. All records are within 80 miles of the coast.
Paniscus californica Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 36. ♀.

calva Townes. Va. (Arlington Co.).
Netelia (*Netelia*) *calva* Townes, 1939. Lloydia 1: 210. ♂.

cascadica Townes. Oreg. (Mt. Hood).
Netelia (*Netelia*) *cascadica* Townes, 1939. Lloydia 1: 205. ♂.

caudata Townes. Va., Ill., Okla.
Netelia (*Netelia*) *caudata* Townes, 1939. Lloydia 1: 216. ♂.

chloris (Olivier). "North America."
Ophion chloris Olivier, 1811. Encycl. Méth. Ins., v. 8, p. 509. ♀.

cockerelli (Cushman). N. Mex., Ariz., Utah, Calif.
Paniscus cockerelli Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 35. ♀.

cushmani Townes. B. C. (Merritt).
Netelia (Netelia) cushmani Townes, 1939. Lloydia 1: 206. ♂.

delicata Townes. Atlantic to 100° W. in Transit. and U. Austr. Zones.
Netelia (Netelia) delicata Townes, 1939. Lloydia 1: 212. ♂ ♀.

densa Townes. Ariz., N. Mex.
Netelia (Netelia) densa Townes, 1939. Lloydia 1: 204. ♂.

emorsa Townes. Fla., Bermuda Isl.
Netelia (Netelia) emorsa Townes, 1939. Lloydia 1: 197. ♂ ♀.

falcata Townes. Vt., N. Y., Pa. Transit. Zone.
Netelia (Netelia) falcata Townes, 1939. Lloydia 1: 210. ♂ ♀.

geminatus (Say). Atlantic to Cont. Divide in Transit. and U. Austr. Zones.
Ophion geminatus Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 76.
Paniscus texanus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 425. ♀.

heroica Townes. N. Y., Mich., Minn., Ariz.; Mexico.
Netelia (Netelia) heroica Townes, 1939. Lloydia 1: 213. ♂.

idioctenus Townes. N. Y., Va., S. C., Ala. U. Austr. Zone.
Netelia (Netelia) idioctenus Townes, 1939. Lloydia 1: 198. ♀.

inepta Townes. N. J., N. C., S. C., Ga. U. Austr. and L. Austr. Zones.
Netelia (Netelia) inepta Townes, 1939. Lloydia 1: 215. ♂.

ingrata Townes. Ariz. (Chiricahua Mts. at 4000–6000 ft.).
Netelia (Netelia) ingrata Townes, 1939. Lloydia 1: 216. ♂.

lativectis Townes. N. Mex. (White Mts. at 6500 ft.).
Netelia (Netelia) lativectis Townes, 1939. Lloydia 1: 212. ♂.

leo arizonensis (Cushman). N. Mex., Ariz., south. Calif.; Mexico. Transit Zone.
Paniscus arizonensis Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 37. ♀.

leo leo (Cushman). Atlantic to 100° W. in Transit., U. Austr. and L. Austr. Zones.
Paniscus leo Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 38. ♀.

ligata Townes. Ariz. (Chiricahua Mts. at 9000–9800 ft.).
Netelia (Netelia) ligata Townes, 1939. Lloydia 1: 205. ♂.

lucens Townes. Colo.
Netelia (Netelia) lucens Townes, 1939. Lloydia 1: 205. ♂ ♀.

macra Townes. Va., Md., Ill., Ariz.; West Indies; Peru; Argentina.
Netelia (Netelia) macra Townes, 1939. Lloydia 1: 196. ♂.

microdon Townes. Va., S. C., Fla., Ala., Miss., Tex. U. Austr. and L. Austr. Zones.
Netelia (Netelia) microdon Townes, 1939. Lloydia 1: 211. ♂ ♀.

microtylus Townes. Ariz. (Huachuca Mts.).
Netelia (Netelia) microtylus Townes, 1939. Lloydia 1: 210. ♂ ♀.

mustela Townes. Ariz. (Huachuca Mts.).
Netelia (Netelia) mustela Townes, 1939. Lloydia 1: 194. ♂ ♀.

nigripectus (Ashmead). "Tex.".
Paniscus nigripectus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 425. ♀.

nitida Townes. N. Y. (Niagara Falls).
Netelia (Netelia) nitida Townes, 1939. Lloydia 1: 215. ♂.

obrepta Townes. Pa., Mich.
Netelia (Netelia) obrepta Townes, 1939. Lloydia 1: 215. ♂.

ocellata (Viereck). Between Mississippi R. and Great Lakes and the Cont. Divide from south. Sask. to Tex.; also Ariz., Ill., Ga., Fla., La.; Bermuda Isl., Peru. Host: *Agrotis orthogonia* Morr.
Paniscus ocellatus Viereck, 1909. Ent. Soc. Wash. Proc. 11: 211. ♂ ♀.
Paniscus immaculatus Morley, 1913. Rev. Ichn. Brit. Mus. v. 2, p. 109. ♀.
Paniscus ocellatus var. *microocellatus* Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 36. ♂ ♀.

orba Townes. D. C., S. C. (Greenville).
Netelia (Netelia) orba Townes, 1939. Lloydia 1: 193. ♂.

ovalis Townes. Atlantic to 100° W. in Transit. and U. Austr. Zones.
Netelia (*Netelia*) *ovalis* Townes, 1939. Lloydia 1: 212. ♂.

pallens occidentalis Townes. B. C., Nev., Ariz., N. Mex., Tex. Common in Sonoran desert.
Netelia (*Netelia*) *pallens occidentalis* Townes, 1939. Lloydia 1: 208. ♂ ♀.

pallens pallens (Cushman). Atlantic States from N. Y. to Ga.
Paniscus pallens Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 39. ♂ ♀.

palpalis Townes. Maine, Mass., N. Y., N. C.
Netelia (*Netelia*) *palpalis* Townes, 1939. Lloydia 1: 203. ♂.

pardalis (Cushman). B. C. and Wyo. south to Calif. and N. Mex.
Paniscus pardalis Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 31. ♀.
Paniscus neomexicanus Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 33. ♀.

percurrens Townes. Colo.
Netelia (*Netelia*) *percurrens* Townes, 1939. Lloydia 1: 207. ♂.

platypes (Cushman). Mass. and Wis. south to Ala. Host: *Acronicta radcliffei* (Harv.).
Paniscus platypes Cushman, 1930. U. S. Natl. Mus. Proc. 76 (25): 6. ♀.

pluridens Townes. Wyo. (W. Yellowstone).
Netelia (*Netelia*) *pluridens* Townes, 1939. Lloydia 1: 202. ♂.

punctata Townes. Atlantic to 100° W. in Transit., U. Austr., and L. Austr. Zones.
Netelia (*Netelia*) *punctata* Townes, 1939. Lloydia 1: 208. ♂ ♀.

recta Townes. Ariz. (Huachuca Mts.).
Netelia (*Netelia*) *recta* Townes, 1939. Lloydia 1: 193. ♂ ♀.

rectifascia Townes. Ariz. (Patagonia and Baboquivari Mts.).
Netelia (*Netelia*) *rectifascia* Townes, 1939. Lloydia 1: 216. ♂.

reflexa Townes. Tex. (Devers).
Netelia (*Netelia*) *reflexa* Townes, 1939. Lloydia 1: 198. ♂.

sayi (Cushman). Atlantic to 100° W. in Transit. and U. Austr. Zones; Mexico. Hosts: *Amathes badinodis* (Grote); *Heliothis armigera* (Hbn.).
Paniscus geminatus var. *sayi* Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 41. ♂ ♀.
Biology: Vance, 1927. Ent. Soc. Amer. Ann. 20: 405–415.

spinipes (Cushman). Atlantic to 100° W.; also Mont. and Mexico. U. Austr. and L. Austr. Zones. Host: *Heliothis armigera* (Hbn.).
Paniscus spinipes Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 32. ♂ ♀.
Biology: Vance, 1927. Ent. Soc. Amer. Ann. 20: 405–417.

stigmata Townes. N. Y., N. J.
Netelia (*Netelia*) *stigmata* Townes, 1939. Lloydia 1: 202. ♂ ♀.

strigilobus Townes. Calif. (Los Angeles). Host: *Zale lunata* (Drury).
Netelia (*Netelia*) *strigilobus* Townes, 1939. Lloydia 1: 207. ♂ ♀.
Biology: Hicks, 1933. Pan-Pacific Ent. 9: 49–52 (as ?*semirufus*).

townesi (Uchida). Calif.
Netelia (*Netelia*) *unicolor* Townes, 1939. Lloydia 1: 202. ♂. Preocc.
Paniscus townesi Uchida, 1939. Ins. Mats. 14: 45. N. name.
townsendi (Cushman). N. Mex. (White Mts.).
Paniscus townsendi Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 40. ♀.

trituberculatus (Cushman). Ariz., Calif.
Paniscus trituberculatus Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 26. ♀.

turbans Townes. Ariz., Colo.
Netelia (*Netelia*) *turbans* Townes, 1939. Lloydia 1: 209. ♂.

umbone Townes. Calif. (Carmel).
Netelia (*Netelia*) *umbone* Townes, 1939. Lloydia 1: 207. ♂.

unguicularis (Cushman). Atlantic to Ill. and Ala. U. Austr. and L. Austr. Zones. Moist bottomland woods.

Paniscus unguicularis Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 33. ♂ ♀.

Subgenus PARABATUS Thomson

Parabatus Thomson, 1888. Opusc. Ent., fasc. 12, p. 1194.
Type: ***Ichneumon virgatus*** Fourcroy. Desig. by Viereck, 1914.

deceptor (Morley). Transcont. in Transit. Zone. Hosts: *Schizura concinna* (A and S.); *Polia legitima* (Grote).
Parabatus deceptor Morley, 1913. Rev. Ichn. Brit. Mus., v. 2, p. 129. ♂.
Parabates cristatoides Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 46. ♂ ♀.
?Parabates crassus Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 47. ♀.

latungula (Thomson). Transcont. in Canad. and Transit Zones.; Eurasia.
Parabatus latungula Thomson, 1888. Opusc. Ent., fasc. 12, p. 1196. ♂ ♀.

longipalpus Townes. Ont. to N. Y., west to Mich. and Ill. Transit. and U. Austr. Zones.
Parabates smithi Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 45. ♀. Preocc.
Netelia (Parabatus) longipalpus Townes, 1939. Lloydia 1: 218. N. name.

rogersi Townes. N. Y., Pa., Md., Va., N. C.
Netelia (Parabatus) rogersi Townes, 1939. Lloydia 1: 219. ♂ ♀.

sinus Townes. Md., Va., Ill.; Guatemala. U. Austr. Zone.
Netelia (Parabatus) sinus Townes, 1939. Lloydia 1: 220. ♂.

uncata Townes. D. C., S. C.
Netelia (Parabatus) uncata Townes, 1939. Lloydia 1: 218. ♂ ♀.

Tribe ECLYTINI (=THYMARIDINI)

Members of this tribe are parasitic mostly on small Lepidoptera. *Eclytus ornatus* attacks Tenthredinidae.

Revision of genera: Townes and Townes, 1945. Bol. Ent. Venezolana 4: 41–53.

Genus ECLYTUS Holmgren

Eclytus Holmgren, 1855. Svenska Vetensk. Akad. Handl. 1: 127.
Type: ***Eclytus ornatus*** Holmgren. Desig. by Viereck, 1912.

fontinalis Holmgren. Transcont. in Transit. Zone; Europe.
Eclytus fontinalis Holmgren, 1855. Svenska Vetensk. Akad. Handl. 1: 128. ♂ ♀.
Eclytus yakutatensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 204. ♂.
Himertosoma schmiedeknechti Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 194. ♂.

ornatus Holmgren. Transcont. in Canad. Zone and colder part of Transit. Zone; Europe. Hosts: *Pachynematus orchreatus* (Hgtn.); *Pristiphora erichsonii* (Htg.).
Eclytus ornatus Holmgren, 1855. Svenska Vetensk. Akad. Handl. 1: 127. ♂ ♀.
Eclytus perennis Davis, 1898. Amer. Ent. Soc. Trans. 24: 305. ♂ ♀.
Spanotecnus flavopictus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 204. ♂.

pleuralis (Provancher). Atlantic to 100° W., in Transit. Zone. Hosts: *Archips* sp.; *Argyrotaenia lutosana* (Clem.); *A. pinatubana* (Keart.); *Acrobasis kearfottella* Dyar.
Orthocentrus pleuralis Provancher, 1875. Nat. Canad. 7: 328. ♀.
Calliphrurus? taeniogaster Viereck, 1912. U. S. Natl. Mus. Proc. 43: 585. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 305.

Genus NELIOPISTHUS Thomson

Neliopisthus Thomson, 1883. Opusc. Ent., fasc. 9, p. 907.
Type: ***Phytodietus elegans*** Ruthe. Monob.

Polysphinctomorpha Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 59.
Type: (***Polysphinctomorpha luggeri*** Ashmead)=[***Hemiteles***] ***semirufus*** (Provancher). Orig. desig.
Revision: Cushman, 1935. Wash. Acad. Sci. Jour. 25: 553–555.

densatus (Say). Atlantic to Cont. Divide; also Ariz. Transit. Zone.
Anomalon densatus Say, 1836. Boston Jour. Nat. Hist. 1: 243. ♀.
Neliopisthus similis Cushman, 1919. U. S. Natl. Mus. Proc. 56: 379. ♀.
Taxonomy: Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 155.

niger Cushman. Colo., Wash.
Neliopisthus niger Cushman, 1922. U. S. Natl. Mus. Proc. 60 (21): 12. ♀.
Neliopisthus longicauda Cushman, 1935. Wash. Acad. Sci. Jour. 25: 554. ♀.

piceae Cushman. Maine, Minn., Oreg. Host: *Recurvaria piceaella* Kearf.
Neliopisthus piceae Cushman, 1935. Wash. Acad. Sci. Jour. 25: 555. ♂ ♀.

semirufus (Provancher). Que. to Va., west to Minn. Hosts: Tineid on *Comptonia* sp.; *Psilocorsis* sp.
Hemiteles semirufus Provancher, 1874. Nat. Canad. 6: 332. ♀.
Polysphinctomorpha luggeri Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 59. ♀.
Neliopisthus nigridorsum Cushman, 1919. U. S. Natl. Mus. Proc. 56: 379. ♀.

Genus CAMPOTHREPTUS Foerster

Campothreptus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 201.
Type: ***Mesoleptus nasutus*** Cresson. Included by Davis, 1897.
Zagryphus Cushman, 1919. U. S. Natl. Mus. Proc. 56: 377.
Type: ***Mesoleptus nasutus*** Cresson. Orig. desig.

nasutus (Cresson). Atlantic to 100° W. in U. Austr. and L. Austr. Zones; Mexico.
Mesoleptus? nasutus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 103. ♂ ♀.
Sychnoleter americanus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 196. ♂.
Taxonomy: Cushman, 1919. U. S. Natl. Mus. Proc. 56: 378.—Townes and Townes, 1945. Bol. Ent. Venezolana 4: 45.

Genus HYBOPHANES Foerster

Hybophanes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 166.
Type: ***Tryphon scabriculus*** Gravenhorst. Desig. by Viereck, 1914.
Oedemopsis Tschek, 1868. Zool.-Bot. Gesell. Wien Verh. 18: 276.
Type: (***Oedemopsis rogenhoferi*** Tschek)=[***Tryphon***] ***scabriculus*** (Gravenhorst). Monob.
Zarhynchus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 59. Preocc.
Type: ***Tryphon nasutus*** Cresson. Orig. desig.
Rhynchothyreus Ashmead, 1900. Canad. Ent. 32: 368. N. name for *Zarhynchus*.
Oedematopsis Morley, 1908. British Ichn., v. 3, pp. 258, 268. Emend.

nasutus (Cresson). Transcont. in Transit. and U. Austr. Zones.
Tryphon? nasutus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 107. ♀.
Taxonomy: Cushman, 1919. U. S. Natl. Mus. Proc. 56: 377.

Genus THYMARIS Foerster

Thymaris Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 151.
Type; (***Thymaris pulchricornis*** Brischke) = [***Hemiteles***] ***contaminatus*** Gravenhorst. Included by Brischke, 1880.
Thymarus Thomson, 1883. Opusc. Ent., fasc. 9, p. 908.
Type: (***Thymarus compressus*** Thomson) = [***Hemiteles***] ***contaminatus*** Gravenhorst. Desig. by Townes, 1944.

negligere (Davis). Atlantic to 100° W. in Transit. and U. Austr. Zones.
Eusterinx negligere Davis, 1897. Amer. Ent. Soc. Trans. 24: 246. ♀.
Callidiotes kansensis Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 55. ♀.
Thymaris americanus Cushman, 1919. U. S. Natl. Mus. Proc. 56: 381. ♂ ♀.

Genus ATOPOTROPHOS Cushman

Atopognathus Cushman, 1919. Ent. Soc. Wash. Proc. 21: 116. Preocc.
Type: (*Atopognathus collaris* Cushman)=[*Mesoleptus*] *bucephalus* (Cresson).
Atopotrophos Cushman, 1940. U. S. Natl. Mus. Proc. 88: 365. N. name.

bucephalus (Cresson). Md., D. C., Va., N. C., Ala.; Mexico.
Mesoleptus? bucephalus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 36. ♂.
Atopognathus collaris Cushman, 1919. Ent. Soc. Wash. Proc. 21: 117. ♂ ♀.
Taxonomy: Townes and Townes, 1945. Bol. Ent. Venezolana 4: 50.

Tribe GRYPOCENTRINI

Genus GRYPOCENTRUS Ruthe

Grypocentrus Ruthe, 1855. Stettin. Ent. Ztg. 16: 52.
Type: *Grypocentrus incisulus* Ruthe. Desig. by Viereck, 1912.
Apimeles Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 205.
Type: (*Apimeles lusorius* Davis)=[*Mesostenus*] *flavipes* (Provancher). Included by Davis, 1898.
Cyrtocentrus Provancher, 1883. Nat. Canad. 14: 6.
Type: (*Cyrtocentrus Quebecensis* Provancher)=[*Mesostenus*] *flavipes* (Provancher). Monob.

Members of this genus commonly parasitize tenthredinid larvae of the fenus *Fenusa*.

flavipes (Provancher). Transcont. in Canad. and Transit Zones.
Mesostenus flavipes Provancher, 1882. Nat. Canad. 13: 363. ♂.
Cyrtocentrus Quebecensis Provancher, 1883. Nat. Canad. 14: 6. ♂.
Apimeles lusorius Davis, 1898. Amer. Ent. Soc. Trans. 24: 283. ♀.

Genus IDIOGRAMMA Foerster

Idiogramma Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 163.
Type: *Idiogramma euryops* Foerster. Included by Schmiedeknecht, 1888.
Macrochasmus Thomson, 1888. Opusc. Ent., fasc. 12, p. 1279.
Type: (*Macrochasmus alysiina* Thomson)=*Idiogramma euryops* Foerster. Monob.
Lysiognatha Ashmead, 1895. Ent. Soc. Wash. Proc. 3: 276.
Type: *Lysiognatha comstockii* Ashmead. Monob.
Revision: Cushman, 1937. Wash. Acad. Sci. Jour. 27: 438–444.

The species are parasitic on the larvae of *Xyela* feeding in the staminate cones of *Pinus*. Adults are often abundant on pine trees just before the time the pollen is shed. All three of the species have been taken on *Pinus virginiana*; *I. longicauda* also on *Pinus taeda*.

bridwelli (Cushman). Md., Va. Host: *Xyela* sp.
Lysiognatha bridwelli Cushman, 1937. Wash. Acad. Sci. Jour. 27: 444. ♂ ♀.

comstockii (Ashmead). N. Y., Va., D. C.
Lysiognatha comstockii Ashmead, 1895. Ent. Soc. Wash. Proc. 3: 276. ♀.
Lysiognatha sulcata Cushman, 1937. Wash. Acad. Sci. Jour. 27: 442. ♂ ♀. N. syn.

longicauda (Cushman). Md., Va., Ga., Ala. Host: *Xyela* sp.
Lysiognatha longicauda Cushman, 1937. Wash. Acad. Sci. Jour. 27: 441, 443. ♂ ♀.

Tribe BOËTHINI

Genus BOËTHUS Foerster

Boëthus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 210.
Type: (*Boethus howardi* Davis)=[*Eubadizon*] *schizoceri* (Riley and Howard). Included by Davis, 1897.

Diplomorphus Giraud, 1872. Ent. Soc. France Ann. 1: 409.
Type: ***Diplomorphus thoracicus*** Giraud. Monob.
Aethalodes Kriechbaumer, 1890. Schweiz. Ent. Gesell. Mitt. 8: 207. Preocc.
Type: ***Aethalodes mesomelas*** Kriechbaumer. Desig. by Viereck, 1914.
Key to species: Cushman, 1922. U. S. Natl. Mus. Proc. 60 (21): 13.

Members of this genus are parasitic on the larvae of argid sawflies.

alaingens Davis. Calif. (San Bernadino Co.).
Boethus alaingens Davis, 1898. Amer. Ent. Soc. Trans. 24: 291. ♀.

glabranotus Davis. Mont.
Boethus glabranotus Davis, 1898. Amer. Ent. Soc. Trans. 24: 291. ♀.

nigripennis Cushman. Ky., Ala., N. Y. Host: *Arge salicis* Rohw.
Boethus nigripennis Cushman, 1922. U. S. Natl. Mus. Proc. 60 (21): 12. ♂ ♀.

schizoceri (Riley and Howard). N. J. to Minn., south to La. and Fla. Host: *Stericticphora ebena* (Nort.).
Eubadizon schizoceri Riley and Howard, 1888. U. S. Dept. Agr., Insect Life 1: 44.
Boethus howardi Davis, 1898. Amer. Ent. Soc. Trans. 24: 290. ♂ ♀.
Boethus aenigmaticus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 314. ♂.
Boethus daeckei Viereck, 1909. Ent. Soc. Wash. Proc. 11: 210. ♂.

Tribe TRYPHONINI

Members of this tribe are parasitic on the larvae of Tenthredinidae. The species are mostly of northern distribution.

Revision: Townes and Townes, 1949–50. Ent. Soc. Amer. Ann. 42: 321–447.

Genus POLYBLASTUS Hartig

Revision: Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 327–350.

Subgenus POLYBLASTUS Hartig

Polyblastus Hartig, 1837. Arch. f. Naturgesch. 3: 155.
Type: (***Tryphon varitarsus*** Gravenhorst)=[***Ichneumon***] ***strobilator*** (Thunberg). Desig. by Viereck, 1912.

atrox Townes and Townes. Que. (Norway Bay).
Polyblastus (Polyblastus) atrox Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 335. ♂.

carbonarius (Gravenhorst). Alta., N. H.; Europe.
Tryphon carbonarius Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 141. ♂.

fulvilinealis Hall. Que. to N. C. in Transit. Zone.
Polyblastus fulvilinealis Hall, 1919. Psyche 26: 155. ♂ ♀.

palaemon Schiødte. Alta., Man.; Europe.
Polyblastus Palaemon Schiødte, 1838. Rev. Zool. (Soc. Cuv.) 1: 40. ♀.

pedalis (Cresson). Transcont. in Huds., Canad., Transit., and U. Austr. Zones. Hosts: *Cladius isomerus* Nort.; *Croesus latitarsus* Nort.; *Pareophora spiraeae* (Dyar).
Tryphon pedalis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 273. ♂.
Bassus Bouleti Provancher, 1874. Nat. Canad. 6: 32. ♀.

strobilator (Thunberg). Transcont. in Transit., Canad., and Huds. Zones; Europe. Host: *Dolerus* sp.
Ichneumon strobilator Thunberg, 1822. Acad. Sci. St. Pétersburg Mém. 8: 270.
Tryphon varitarsus Gravenhorst, 1829. Ichn. Europaea, v. 1, p. 688; v. 2, p. 222. ♂ ♀.
Erromenus annulipes Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 212. ♀.

tibialis (Cresson). Transcont. in Transit. and Canad. Zones. Also Huds. Zone at Churchill, Man.
Tryphon tibialis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 280. "♂"=♀.
Tryphon annulipes Cresson, 1868. Amer. Ent. Soc. Trans. 2: 108. ♀.
Prinopoda (!) ***media*** Hall, 1919. Pscyhe 26: 158. ♀.

wahlbergi rubescens Townes and Townes. Atlantic to Alta. in Transit. and U. Austr. Zones. *P. wahlbergi wahlbergi* Holmgren is European.
Polyblastus (Polyblastus) wahlbergi rubescens Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 336. ♂ ♀.

Subgenus COPHENCHUS Townes and Townes

Cophenchus Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 338.
Type: ***Polyblastus (Cophenchus) flexus*** Townes and Townes. Orig. desig.

botrys Townes and Townes. Mass., N. H., Mich., Que., Man.
Polyblastus (Cophenchus) botrys Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 339. ♂ ♀.

flexus Townes and Townes. Que., Alta., B. C., Utah.
Polyblastus (Cophenchus) flexus Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 339. ♀.

Subgenus LABROCTONUS Foerster

Labroctonus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 195.
Type: ***Tryphon articulatus*** Cresson. Included by Davis, 1897.
Nemioblastus Thomson, 1883. Opusc. Ent., fasc. 9, p. 901.
Type: ***Polyblastus (Nemioblastus) albicoxa*** Thomson. Desig. by Viereck, 1914.

alatus Townes and Townes. N. Y. to Va. in Transit. Zone.
Polyblastus (Labroctonus) alatus Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 345. ♂ ♀.

articulatus (Cresson). Alta., Man.
Tryphon articulatus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 110. ♀.

bimacula Townes and Townes. Transcont. in Canad. and Transit. Zones.
Polyblastus (Labroctonus) bimacula Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 343. ♂ ♀.

buccatus Townes and Townes. Wash. and Calif. in Huds. Zone.
Polyblastus (Labroctonus) buccatus Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 349. ♂ ♀.

dorsalis (Provancher). Transcont. in Canad. and Transit. Zones. Host: *Pristiphora sycophanta* Walsh.
Tryphon dorsalis Provancher, 1879. Nat. Canad. 11: 253. ♀.

expletus Townes and Townes. Atlantic to Colo. in Canad. and Transit. Zones. Host: *Nematus (Pteronidea) limbata* Cress.
Polyblastus (Labroctonus) expletus Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 349. ♂ ♀.

galaphilus Townes and Townes. Transcont. in Canad. and Transit. Zones.
Polyblastus (Labroctonus) galaphilus Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 347. ♂ ♀.

gloriosus (Davis). Que., Wash., Oreg., Calif. Transit. Zone.
Phaestus gloriosus Davis, 1898. Amer. Ent. Soc. Trans. 24: 292. ♀.

jugatus Townes and Townes. N. H. (Pinkham Notch).
Polyblastus (Labroctonus) jugatus Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 342. ♂.

peckae Townes and Townes. N. H. (Randolph).
Polyblastus (Labroctonus) peckae Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 348. ♀.

productus Townes and Townes. Wash. (Canad. Zone of Mt. Rainier).

Polyblastus* (*Labroctonus*) *productus Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 345. ♂ ♀.

rutilus Townes and Townes. Calif.
Polyblastus* (*Labroctonus*) *rutilus Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 344. ♂ ♀.

stenocentrus Holmgren. Colo. and Alaska in Alpine Zone; Europe.
Polyblastus stenocentrus Holmgren, 1855. Svenska Vetensk. Akad. Handl. 1: 215. ♂ ♀.

Genus CTENOCHIRA Foerster

Ctenochira Foerster, 1855. Naturh. Ver. Rheinlande Verh. 12: 226.
Type: ***Ctenochira bisinuata*** Foerster. Monob.
Ctenacme Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 196.
Type: ***Polyblastus "scutellatus"*** Thomson (=***scutellaris*** Thomson). Desig. by Morley, 1913.
Scopiorus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 196.
Type: ***Polyblastus marginatus*** Holmgren. Desig. by Viereck, 1914.
Gemophaga Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 211.
Type: ***Gemophaga rufa*** Ashmead. Included by Ashmead, 1902.
Ctenacmus Thomson, 1883. Opusc. Ent., fasc. 9, p. 901.
Type: ***Polyblastus* (*Ctenacmus*) *genalis*** Thomson. Desig. by Viereck, 1914.
Trichocalymmus Thomson, 1883. Opusc. Ent., fasc. 9, p. 903.
Type: ***Tryphon propinquus*** Gravenhorst. Desig. by Viereck, 1914.
Exochoblastus Schmiedeknecht, 1912. Opusc. Ichn., fasc. 30, p. 2401; fasc. 31, p. 2468.
Type: ***Exochoblastus oreophilus*** Schmiedeknecht. Monob.
Scopimenus Roman, 1937. Ent. Monthly Mag. 74: 64.
Type: ***Scopimenus pygobarbus*** Roman. Monob.
Revision: Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 350–373.

adeps Townes and Townes. N. Y. (Ithaca).
Ctenochira adeps Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 356. ♀.

analis (Cresson). Transcont. in Canad. and Transit. Zones.
Tryphon analis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 279. ♂.
Tryphon occidentalis Cresson, 1868. Amer. Ent. Soc. Trans. 2: 109. ♀.

debilis Townes and Townes. Wash., Alta., Mont., and Colo. in Canad. Zone.
Ctenochira debilis Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 354. ♂ ♀.

deplanata Townes and Townes. Mich., Colo.
Ctenochira deplanata Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 372. ♂ ♀.

dilatata dilatata (Provancher). Man. and Que. to N. C.
Catocentrus dilatatus Provancher, 1875. Nat. Canad. 7: 316. ♂.

dilatata niveicola (Ashmead). Alaska, Wash., Oreg., Calif., Wyo.
Scorpiorus (!) ***alaskensis*** Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 214. ♀.
Scorpiorus (!) ***niveicola*** Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 214. ♂ ♀.
Scopiorus plagosus Hall, 1919. Psyche 26: 159. ♀.

extricata (Davis). Alta., Wash., Oreg., Colo.
Scopiorus extricatus Davis, 1897. Amer. Ent. Soc. Trans. 24: 259. ♀.

ferrugata Townes and Townes. Wash. (Mt. Rainier at 4200 ft.).
Ctenochira ferrugata Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 370. ♀.

frigida (Cresson). Man., Mich., and Colo. to Pacific, north to Alaska. Huds. and Canad. Zones. Host: *Nematus* (*Pteronidea*) *mendicus* Walsh.
Bassus frigidus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 111. ♀.

gagates Townes and Townes. S. Dak., Colo., Sask., Alta., Wash., Alaska. Canad. and Huds. Zones.
Ctenochira gagates Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 359. ♂ ♀.

gillettei (Davis). Transcont. in Transit. Zone.
Scopiorus gillettei Davis, 1897. Amer. Ent. Soc. Trans. 24: 258. ♀.
Scopiorus expansa Davis, 1897. Amer. Ent. Soc. Trans. 24: 258. ♂.
Polyblastus scopioroides Hall, 1919. Psyche 26: 156. ♀.

infans Townes and Townes. Colo., Man., Alaska. Arctic-Alpine Zone.
Ctenochira infans Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 366. ♂ ♀.

inflata Townes and Townes. N. Y. (Ithaca).
Ctenochira inflata Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 363 ♀.

melina Townes and Townes. Que., Sask.
Polyblastus annulicornis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 108. "♀"=♂. Preocc.
Ctenochira melina Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 358. N. name.

pectoralis Townes and Townes. Que., Ont., N. C.
Ctenochira pectoralis Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 364. ♂ ♀.

picta Townes and Townes. N. Y., N. C., B. C., Wash. Transit Zone.
Ctenochira picta Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 370. ♀.

pikonematis Townes and Townes. Transcont. in Canad. Zone. Hosts: *Pikonema alaskensis* (Roh.); *P. dimmockii* (Cress.).
Ctenochira pikonematis Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 365. ♂ ♀.

potens Townes and Townes. B. C., Alaska.
Ctenochira potens Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 364. ♀.

quebecensis (Provancher). Que., Mass., Kans., Colo. Host: *Nematus ventralis* Say.
Euceros Quebecensis Provancher, 1874. Nat. Canad. 6: 30. ♀.
Tryphon flavifrons Fyles, 1893. Canad. Ent. 25: 107. ♀.
Scopiorus monticola Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 56. ♀.

rubicunda Townes and Townes. N. B. (Fredericton).
Ctenochira rubicunda Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 369. ♀.

rufa (Ashmead). Transcont. in Canad. and Huds. Zones. Associated with *Salix*.
Trophoctonus insularis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 215. ♂.
Gemophaga rufa Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 223. ♂.

subcrassa (Cresson). Transcont. in Transit. and Canad. Zones.
Tryphon subcrassus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 109. ♂ ♀.

tetrica Townes and Townes. Colo. (Alpine Zone of Rocky Mt. Natl. Park).
Ctenochira tetrica Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 355. ♀.

Genus ERROMENUS Holmgren

Revision: Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 374–395.

Subgenus ERROMENUS Holmgren

Erromenus Holmgren, 1855. Svenska Vetensk. Akad. Handl. 1: 221.
Type: ***Tryphon brunnicans*** Gravenhorst. Desig. by Viereck, 1912.
?Trichocalymma Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 196.
Type: ***Trichocalymma bipunctatum*** Woldstedt. Desig. by Viereck, 1914.
Currania Viereck, 1924. Canad. Ent. 56: 300.
Type: (***Currania mirabilis*** Viereck)=***Erromenus analis*** Brischke. Orig. desig.

analis Brischke. Transcont. in Canad. Zone; Europe. On *Salix*.
Erromenus analis Brischke, 1871. Phys.-Ökon. Gesell. Königsberg Schrift. 11: 95. ♂ ♀.
Currania mirabilis Viereck, 1924. Canad. Ent. 56: 301. ♀.

brevipes Townes and Townes. Wash. (Huds. Zone of Mt. Rainier).
Erromenus (*Erromenus*) *brevipes* Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 377. ♂ ♀.

caelator Townes and Townes. N. Y., Ont.
Erromenus (*Erromenus*) *caelator* Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 388. ♀.

defrictus Townes and Townes. Md. (Takoma Park).
Erromenus (*Erromenus*) *defrictus* Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 383. ♀.

dimidiatus (Cresson). Transcont. in Transit., Canad., and Huds. Zones.
Tryphon dimidiatus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 108. ♂.
Tryphon atricoxus Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 104. ?♀.
Scopiorus hiatus Davis, 1897. Amer. Ent. Soc. Trans. 24: 258. ♂ ♀.

dolichops Townes and Townes. Transcont. in Transit., Canad., and Huds. Zones.
Erromenus (*Erromenus*) *dolichops* Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 391. ♂ ♀.

glabrosus Davis. Man., Wyo., Colo., Oreg., Calif.
Erromenus glabrosus Davis, 1897. Amer. Ent. Soc. Trans. 24: 260. ♂.

labratus Townes and Townes. Calif. in Canad. and Transit. Zones, over scrub *Quercus*.
Erromenus (*Erromenus*) *labratus* Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 390. ♀.

levis Townes and Townes. N. Y. (Taughanic Falls).
Erromenus (*Erromenus*) *levis* Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 378. ♂ ♀.

marginatus Provancher. Transcont. in Transit. and Canad. Zones. Host: "*Nematus*" sp.
Erromenus marginatus Provancher, 1883. Nat. Canad. 14: 10. ♀.

nasalis Townes and Townes. Transcont. in Transit., Canad., and Huds. Zones.
Erromenus (*Erromenus*) *nasalis* Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 389. ♂ ♀.

planus Townes and Townes. Transcont. in Transit. and Canad. Zones.
Erromenus (*Erromenus*) *planus* Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 387. ♂ ♀.

proteus Townes and Townes. Minn., Sask., Alta., Wash., Calif. Canad. Zone.
Erromenus (*Erromenus*) *proteus* Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 384. ♂ ♀.

punctulatus Holmgren. Transcont. in Canad. and Huds. Zones; Europe.
Erronemus punctulatus Holmgren, 1855. Svenska Vetensk. Akad. Handl. 1: 222. ♂.
Tryphon crassus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 107. ♂ ♀.
Tryphon tejonicus Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 372. ♂.
Polyblastus leviculus Davis, 1897. Amer. Ent. Soc. Trans. 24: 263. ♂.

scorteus Townes and Townes. Wash. and Colo. in Canad. and Huds. Zones.
Erromenus (*Erromenus*) *scorteus* Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 379. ♂ ♀.

tonto Townes and Townes. Ariz. (Sierra Ancha 5300–6200 ft.).
Erromenus (*Erromenus*) *tonto* Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 390. ♂ ♀.

ungulatus Townes and Townes. Transcont. in Transit., Canad., and Huds. Zones.
Erromenus (*Erromenus*) *ungulatus* Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 386. ♂ ♀.

variolae Townes and Townes. N. Y., N. J., Va., Kans.

Erromenus* (*Erromenus*) *variolae Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 393. ♂ ♀.

Subgenus ADERAEON Townes and Townes

Aderaeon Townes and Townes, 1949. Ent. Soc. Amer. Ann. 42: 394.
Type: ***Erromenus bedardi*** Provancher. Orig. desig.

bedardi Provancher. Transcont. in Canad. Zone. Hosts: *Pikonema alaskensis* (Roh.); *P. dimmockii* (Cress.).
Erromenus Bedardi Provancher, 1879. Nat. Canad. 11: 266. ♀.

Genus MONOBLASTUS Hartig

Monoblastus Hartig, 1837. Arch. f. Naturgesch. 3: 155.
Type: ***Monoblastus caudatus*** Hartig. Desig. by Viereck, 1914.
Otoblastus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 201.
Type: ***Tryphon luteomarginatus*** Gravenhorst. Included by Thomson, 1883.
Coeloconus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 203.
Type: ***Ichneumon brachyacanthus*** Gmelin. Included by Morley, 1912.
Neleges Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 204.
Type: ***Tryphon proditor*** Gravenhorst. Included by Pfankuch, 1907.
Catocentrus Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 89.
Type: ***Tryphon philanthoides*** Cresson. Monob.
Anelpisthus Brauns, 1898. Ver. Freunde Naturgesch. Meklenburg Arch. 51: 60. Preocc.
Type: (***Anelpisthus bidentatus*** Brauns)=[***Tryphon***] ***proditor*** (Gravenhorst).
Braunsianus Berg, 1898. Mus. Buenos Aires Comunic. 1: 42. N. name for *Anelpisthus*.
Idothrichus Schmiedeknecht, 1907. Hym. Mitteleuropas, p. 619.
Type: ***Phaestus sericeus*** Brischke. Monob.

Revision: Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 397–417.

atroferia Townes and Townes. N. Y., Pa., N. C., Mich. Transit. Zone.
Monoblastus atroferia Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 413. ♂ ♀.

davisi (Townes). N. Y., Ont., Ill., Mich., Iowa.
Tryphon nigrum Davis, 1898. Amer. Ent. Soc. Trans. 24: 281. ♂. Preocc.
Tryphon davisi Townes, 1944. Amer. Ent. Soc. Mem. 11: 155. N. name.

dionnei (Provancher). Gaspé Peninsula to Pa., west to Minn. Canad. and Transit. Zones.
Tryphon Dionnei Provancher, 1879. Nat. Canad. 11: 256. ♀.

eurus Townes and Townes. Md. (Plummers Isl.).
Monoblastus eurus Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 410. ♂.

favonius Townes and Townes. Calif. Transit. Zone.
Monoblastus favonius Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 409. ♂ ♀.

feria feria (Davis). Atlantic to Cont. Divide. Transit. Zone.
Otlophorus innumerabilis var. ***feria*** Davis, 1897. Amer. Ent. Soc. Trans. 24: 276. ♂ ♀.
Epachtes (!) ***basilicus*** Davis, 1895. Amer. Ent. Soc. Trans. 24: 283. ♂ ♀.

feria rossi Townes and Townes. Pacific to Cont. Divide. Transit. Zone.
Monoblastus feria rossi Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 412. ♂ ♀.

innumerabilis (Davis). Wash., Oreg., Calif., Nev.
Otlophorus innumerabilis Davis, 1897. Amer. Ent. Soc. Trans. 24: 278. ♂ ♀.

kaniacensis (Hall). Man., Minn., Wyo., Colo., Utah, Ariz., Mont., Idaho, Oreg., Wash. On *Symphoricarpos*.

Polyblastus kaniacensis Hall, 1919. Psyche 26: 156. ♀.

macer Townes and Townes. N. Y. and Ohio to Va. Herbage of bottomland woods.
Monoblastus macer Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 405. ♂ ♀.

montezuma (Cameron). Transcont. in Transit. Zone and warmer parts of Canad. Zone; Mexico.
Tryphon montezuma Cameron, 1886. Biol. Cent.-Amer., Hym., v. 1, p. 286. ♂.
Otlophorus affinis Ashmead, 1901. Psyche 9: 148. ♂.

phaeopteris Townes and Townes. Tex. (Hidalgo Co.); Mexico.
Monoblastus phaeopteris Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 415. ♂.

philanthoides (Cresson). N. H., N. Y., Ill.
Tryphon philanthoides Cresson, 1868. Amer. Ent. Soc. Trans. 2: 110. ♀.

proximus Townes and Townes. Wash., Oreg., Idaho, Calif.
Monoblastus proximus Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 403. ♂ ♀.

Genus THIBETOIDES Davis

Thibetoides Davis, 1897. Amer. Ent. Soc. Trans. 24: 205.
Type: *Thibetoides flosamoris* Davis. Monob.

flosamoris Davis. Wash., Oreg., Calif. Canad. and Transit. Zones.
Thibetoides flosamoris Davis, 1897. Amer. Ent. Soc. Trans. 24: 205. ♂.
Taxonomy: Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 418.

Genus DYSPETUS Thomson

Dyspetus Thomson, 1883. Opusc. Ent., fasc. 9, p. 899.
Type: (*Tryphon praerogator* of authors)=*Dyspetus fracticeps* Townes and Townes. Monob.

rufus (Provancher). Que.
Exetastes rufus Provancher, 1874. Nat. Canad. 6: 78. ♂ ♀.
Taxonomy: Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 422.

Genus COSMOCONUS Foerster

Cosmoconus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 203.
Type: *Ichneumon elongator* Fabricius. Included by Wolstedt, 1877.
Revision: Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 422–426.

arcticus (Brues). Pacific coastal area from Alaska to Marin Co., Calif.
Polyblastus arcticus Brues, 1919. Canad. Arctic Exped. 1913–18, v. 3 G, p. 22. ♀.

canadensis canadensis (Provancher). Canad. Zone of east. half of the continent, with some overlap into Transit. Zone.
Tryphon canadensis Provancher, 1875. Nat. Canad. 7: 177. ♀.

canadensis vallis Townes and Townes. Atlantic to 100° W. in U. Austr. Zone.
Cosmoconus canadensis vallis Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 425. ♂ ♀.

Genus TRYPHON Fallén

Revision: Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 426–447.

Subgenus TRYPHON Fallén

Tryphon Fallén, 1813. Spec. Nov. Hym. Disp. Meth., p. 16.
Type: *Ichneumon rutilator* Linnaeus. Desig. by Curtis, 1832.
Psilosage Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 203.
Type: *Tryphon ephippium* Holmgren. Included by Morley, 1912.

Otitochilus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 203.
Type: ***Tryphon trochanteratus*** Holmgren. Desig. by Viereck, 1914.

The subgenus *Tryphon* is restricted to the Palearctic Region.

Subgenus NOËMON Foerster

Noëmon Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 207.
Type: ***Noemon palmaris*** Davis. Desig. by Viereck, 1914.

californicus Cresson. Calif.
Tryphon californicus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 1878: 373. ♂ ♀.

coquilletti Townes and Townes. Calif. (Paso Robles and Los Angeles Co.).
Tryphon (Noëmon) coquilletti Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 430. ♀.

hamatus Townes and Townes. Calif.
Tryphon (Noëmon) hamatus Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42:432. ♂ ♀.

lusorius Cresson. Calif.
Tryphon lusorius Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 1878: 373. ♂.

machaerus Townes and Townes. Calif. (Mt. Diablo).
Tryphon (Noëmon) machaerus Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 431. ♂ ♀.

palmaris (Davis). South. Calif.
Noemon palmaris Davis, 1898. Amer. Ent. Soc. Trans. 24: 287. ♂ ♀.

Subgenus SYMBOËTHUS Foerster

Symboëthus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 204.
Type: ***Tryphon exclamationis*** Gravenhorst. Desig. by Viereck, 1914.
Quadrigana Davis, 1897. Amer. Ent. Soc. Trans. 24: 280.
Type: ***Tryphon americanus*** Cresson. Monob.

The species are widespread and often abundant in the Transitional, Canadian, and Hudsonian zones. Adults occur in spring and early summer, usually in moist grassy places along roadside ditches, the borders of and clearings in woods, and grassy meadows, usually where there is also *Equisetum arvense*. *Dolerus* is presumed the host.

alaskensis Ashmead. Alaska to Sask. and Wash.
Polyblastus glacialis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 213. ♀.
Tryphon alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 215. ♀.

americanus Cresson. Atlantic to 100° W. in Transit. Zone.
Tryphon americanus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 276. ♂.
Tryphon affinis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 277. ♀.

communis communis Cresson. Atlantic to Cont. Divide; Alaska. Transit., Canad., and Huds. Zones.
Tryphon communis Cresson, 1868. Amer. Ent. Soc. Trans. 2: 103. ♂ ♀.
Tryphon clypeatus Provancher, 1875. Nat. Canad. 7: 311. ♂.
Tryphon pediculatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 102. ♂.
Tryphon communis var. ***atripes*** Davis, 1898. Amer. Ent. Soc. Trans. 24: 282. ♂ ♀.
Grypocentrus rufiterminalis Hall, 1919. Psyche 26: 157. ♀.

communis foraminatus Townes and Townes. Pacific to Cont. Divide. Transit., Canad., and Huds. Zones.
Tryphon (Symboëthus) communis foraminatus Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 442. ♂ ♀.

humeralis Townes and Townes. Que., Maine, N. H., Vt., Mich., Colo.
Tryphon (Symboëthus) humeralis Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 438. ♂ ♀.

illotus Townes and Townes. Wash. (Pullman).
Tryphon (Symboëthus) illotus Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 443. ♂.

mystax Townes and Townes. Transcont. in Canad. Zone.
Tryphon (Symboëthus) mystax Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 437. ♂ ♀.

rempeli Townes and Townes. Wash., Oreg., Sask.
Tryphon (Symboëthus) rempeli Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 435. ♂ ♀.

seminiger Cresson. Transcont. in Transit., Canad. and Huds. Zones.
Tryphon seminiger Cresson, 1864. Ent. Soc. Phila. Proc. 3: 278. ♀.
Metopius terminalis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 438. ♂.

viator Townes and Townes. Atlantic to Colo. and Alta. Transit. and warmer parts of Canad. Zone.
Tryphon (Symboëthus) viator Townes and Townes, 1950. Ent. Soc. Amer. Ann. 42: 443. ♂ ♀.

Tribe CTENISCINI[15]

Species, so far as is known, parasitic on larvae of Argidae, Tenthredinidae, and Diprionidae. Distribution is mostly northern.

Revisions: Davis, 1897. Amer. Ent. Soc. Trans. 24: 227–240.—Mason, in preparation.

Genus CTENISCUS Haliday

Cteniscus Haliday, 1832. *In* Curtis, British Ent., v. 9, No. 399.
Type: *Cteniscus aurifluus* Haliday. Orig. desig.
Eridolius Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 195. N. syn.
Type: *Eridolius pygmaeus* (Holmgren). Included by Thomson, 1883.

A few specimens have been reared from Nematinae (Tenthredinidae). Many Nearctic species are of boreal distribution and undescribed.

clypeatus Cresson. Transcont. in Canad. Zone, entering Transit. Zone in Ont. Que., N. Y., and Pa.
Cteniscus clypeatus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 113. ♀.

consors Cresson. Transcont. in Canad. and Transit. Zones; Md.
Cteniscus consors Cresson, 1868. Amer. Ent. Soc. Trans. 2: 113. ♀.

flavicoxae Cresson. Mass., Del.
Cteniscus flavicoxae Cresson, 1864. Ent. Soc. Phila. Proc. 3: 283. ♀.

gnathoxanthus (Gravenhorst). Alaska, Que.; Europe, Siberia.
Tryphon gnathoxanthus Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 147. ♀.

marginatus Thomson. Transcont. in Huds. Zone; Europe.
Cteniscus marginatus Thomson, 1883. Opusc. Ent., fasc. 9, p. 892. ♂ ♀.
Cteniscus nigrofemoralis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 211. ♂. N. syn.

orbitalis Cresson. Transit. and U. Austr. Zones from Que. to N. Y. (Long Island) and Pa. Host: Tenthredinid larva.
Cteniscus orbitalis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 293. "♂"=♀.

praeustus (Holmgren). Huds., Canad. and humid Transit. Zones of the western mountains; Europe, Siberia.
Exenterus praeustus Holmgren, 1855. Svenska Vetensk. Akad. Handl. 1: 242. ♂ ♀.

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[15] By William R. M. Mason, Cornell Univ., Ithaca, N. Y.

pygmaeus (Holmgren), n. comb. Transcont. in Huds. and L. Arctic Zones; Europe (Lappland, N. Sweden). Swept from *Salix*.
Exenterus pygmaeus Holmgren, 1855. Svenska Vetensk. Akad. Handl. 1: 245. ♀.
Microplectron alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 212. ♂. N. syn.

Genus ACROTOMUS Holmgren

Acrotomus Holmgren, 1855. Svenska Vetensk. Akad. Handl. 1: 222.
Type: *Tryphon lucidulus* Gravenhorst. Desig. by Viereck, 1912.
Delotomus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 194.
Type: *Tryphon lucidulus* Gravenhorst. Desig. by Viereck, 1914.

ornatus (Walsh), n. comb. Atlantic west to Mich. in Transit. to L. Austr. Zones.
Exenteron (!) *ornatus* Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 105. ♂.
Cteniscus rufus Provancher, 1876. Nat. Canad. 8: 318. ♀. N. syn.
Tryphon rufigaster Provancher, 1886. Addit. Corr. Faune Ent. Canad. Hym., p. 104. ♀.

Genus DIABORUS Foerster

Diaborus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 195.
Type: *Cteniscus* (*Diaborus*) *sedulus* Woldstedt. Desig. by Viereck, 1912.

Most species occur on willow. The only known hosts are Nematinae (Tenthredinidae).

dorsalis (Cresson). Transcont. in Huds., Canad., and Transit. Zones.
Cteniscus dorsalis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 282. "♂"=♀.
Cteniscus mediatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 282. ♂.

glutiniatus Roman. Maine (Mt. Katahdin), Yukon (Chilkat Pass); Siberia, N. Europe.
Diaborus glutiniatus Roman, 1909. Naturw. Unters. Sarekgebirges, v. 4, p. 282. ♂ ♀.

maculiventris Ashmead. Transcont. in Huds. Zone; timberline in New England Mts., Rocky Mts., and Aleutian Isl.
Diaborus maculiventris Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 197. ♂.
Diaborus ignipes Davis, 1897. Amer. Ent. Soc. Trans. 24: 231. ♀. N. syn.
Diaborus sexmaculatus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 212. ♂. N. syn.

nigrocephalus Davis. Conn., Md., Ga.
Diaborus nigrocephalus Davis, 1897. Amer. Ent. Soc. Trans. 24: 232. ♀.

similis Davis. Transcont. in Canad. and Transit. Zones; also Nebr. and Popof Isl., Alaska.
Diaborus similis Davis, 1897. Amer. Ent. Soc. Trans. 24: 231. ♀. (♂ misdet.).
Diaborus nebraskensis Davis, 1897. Amer. Ent. Soc. Trans. 24: 232. ♂. N. syn.
Diaborus citrifrons Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 212. ♂. N. syn.

vitticollis (Cresson). Sask., Que., Mass., N. Y., Pa., and N. C. (Mt. Pisgah at 4800 ft.).
Cteniscus vitticollis Cresson, 1868. Amer. Ent. Soc. Trans. 2: 113. "♂"=♀.

Genus EXENTERUS Hartig

Exenterus Hartig, 1837. Arch. f. Naturgesch. 1: 156.
Type: (*Ichneumon marginatorius* Fabricius)=[*Ichneumon*] *amictorius* (Panzer). Monob.
Actenonyx Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 195.
Type: (*Ichneumon marginatorius* Fabricius)=[*Ichneumon*] *amictorius* (Panzer). Included by Schmiedeknecht, 1911.

Picroscopus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 195. N. syn. Type: ***Tryphon ictericus*** Gravenhorst. Included by Thomson, 1883.

Revisions: Cushman, 1940. U. S. Dept. Agric. Misc. Pub. 354: 1–14.—Cushman, 1943. Canad. Ent. 75: 169–174.

Biology (introduced species): Morris, Cameron, and Jepson, 1937. Bul. Ent. Res. 28: 369 pp.

Parasitic on larvae of Diprionidae.

abruptorius (Thunberg). Europe, China, Japan. Introduced into East. Canada and New England but recovered only in N. J.

Ichneumon abruptorius Thunberg, 1822. Acad. Sci. St. Pétersburg Mém. 8: 279.

Biology: Morris, 1937. Bul. Ent. Res. 28: 525–534.

affinis Rohwer. Canad. and Transit. Zones of Maine, Que., Ont. Hosts: *Neodiprion abietis* (Harr.); *N. americanus banksianae* Roh.; *N. nannulus* Schedl; *N. virginianus* Roh.

Exenterus affinis Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 225. ♀.

amictorius (Panzer). Europe. Introduced and established in Ont., Que., N. B., N. S. Host: *Diprion hercyniae* (Htg.).

Ichneumon marginatorius Fabricius, 1793. Ent. System., v. 2, p. 145. Preocc.

Ichneumon amictorius Panzer, 1801. Faunae Ins. German., h. 80, pl. 14. ♀.

canadensis Provancher. Canad., Transit., and U. Austr. Zones west to Minn. Hosts: *Diprion* (*Gilpinia*) *hercyniae* (Htg.); *Neodiprion americanus banksianae* Roh.; *N. lecontei* (Fitch); *N. sertifer* (Geoff.); *N. swainei* Midd.

Exenterus Canadensis Provancher, 1883. Nat. Canad. 14: 9. ♂ ♀.

Exenterus nigrifrons Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 225. "♀"= ♂.

Exenterus flavissimus Cushman, 1940. U. S. Dept. Agric. Misc. Pub. 354: 12. ♂ ♀.

claripennis Thomson. Europe. Introduced and established in N. B., Que., Ont. Host: *Diprion* (*Gilpinia*) *hercyniae* (Htg.).

Exenterus claripennis Thomson, 1883. Opusc. Ent., fasc. 9, p. 887. ♂ ♀.

diprionis Rohwer. Canad. to L. Austr. Zones, Atlantic west to Wis. and La. Hosts: *Neodiprion virginianus* Roh., *?N. fabricii* (Leach); *N. lecontei* (Fitch); *N. pinetum* (Nort.); *N. swainei* Midd.

Exenterus diprioni Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 222. ♀.

Exenterus diprionis Cushman, 1940. U. S. Dept. Agr. Misc. Pub. 354: 4. Emend.

hullensis Provancher. Transit. Zone of Ont., Que., Mich., N. H.

Exenterus Hullensis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym. p. 104. ♂ ♀.

lophyri Viereck. Neb., Ariz. Host: *Neodiprion* (*Zadiprion*) *grandis* (Roh.).

Exenterus lophyri Viereck, 1911. U. S. Natl. Mus. Proc. 39: 404. ♀.

Biology: Swenk, 1911. Nebr. Agr. Expt. Sta. Ann. Rpt. 24: 26–28.

pini Cushman. Transit. Zone in Calif., Ariz., Colo., Neb.

Exenterus pini Cushman, 1940. U. S. Dept. Agric. Misc. Pub. 354: 13. ♀.

platypes Cushman. Transit. and Canad. Zones in Minn., Ont., Que., N. C. Host: *Neodiprion americanus banksianae* Roh.

Exenterus platypes Cushman, 1943. Canad. Ent. 75: 173. ♀.

tricolor Roman. Europe. Introduced into East. Canada but not since recovered.

Exenterus tricolor Roman, 1913. Ent. Tidskr. 34: 127. ♂ ♀.

tsugae Cushman. Huds. to Transit. Zones; B. C. and Mont. to Calif. Host: *Neodiprion tsugae* Midd.

Exenterus tsugae Cushman, 1940. U. S. Dept. Agric. Misc. Pub. 354: 13. ♀.

Biology: Furniss and Dowden, 1941. Jour. Econ. Ent. 34: 49.

vellicatus Cushman. Europe. Established by introduction in N. B. Also in Newfoundland, though not knowingly introduced. Host: *Diprion* (*Gilpinia*) *hercyniae* (Htg).

Exenterus vellicatus Cushman, 1940. U. S. Dept. Agric. Misc. Pub. 354: 13. ♀.

walleyi Cushman. Canad. and Transit. Zones in Ont. and N. B. Hosts: *Neodiprion abietis* (Harr.); *N. nannulus* Schedl.
Exenterus walleyi Cushman, 1943. Canad. Ent. 75: 171. ♀.

Genus SMICROPLECTRUS Thomson

Microplectron Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 195. Preocc.
Type: ***Exenterus jucundus*** Holmgren. Desig. by Viereck, 1914.
Smicroplectrus Thomson, 1883. Opusc. Ent., fasc. 9, p. 888.
Type: ***Exenterus jucundus*** Holmgren. Desig. by Viereck, 1912.
Anderis Davis, 1897. Amer. Ent. Soc. Trans. 24: 233.
Type: ***Cteniscus albilineatus*** Walsh. Desig. by Viereck, 1914.
Excavarus Davis, 1897. Amer. Ent. Soc. Trans. 24: 233.
Type: ***Cteniscus annulipes*** Cresson. Desig. by Viereck, 1914.
Auderis Davis, 1898. Amer. Ent. Soc. Trans. 24: 348. Emend.
Revision: Walley, 1937. Canad. Ent. 69: 131.

Adults are associated with *Picea*, *Populus*, and *Salix*. Some species have been reared from Nematinae (Tenthredinidae).

albilineatus (Walsh). Transcont. in Huds. to Transit. Zones.
Cteniscus albilineatus Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 107. ♂.

annulipes (Cresson). Transit. to U. Austr. Zones; Atlantic to Alta. and Colo.
Cteniscus annulipes Cresson, 1868. Amer. Ent. Soc. Trans. 2: 112. "♂"=♀.

apicatus (Provancher). Transit. and Canad. Zones in B. C., Colo., Ont., Que., N. Y. Host: *Nematus nigriventris* Hgtn.
Cteniscus apicatus Provancher, 1879. Nat. Canad. 11: 263. "♂"=♀.

californicus (Cresson). Transcont. in Transit. and U. Austr. Zones.
Cteniscus californicus Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 374. ♂.
Smicroplectrus disseptus Walley, 1933. Canad. Ent. 65: 256. ♀. N. syn.

incompletus Walley. Canad. and Transit. Zones; Atlantic to Alta. and Ariz. Host: *Pikonema* sp.
Smicroplectrus incompletus Walley, 1937. Canad. Ent. 69: 134. ♀.

robustus Walley. Canad. and Transit. Zones; Atlantic to Alta. Host: *Nematus* (*Pteronidea*) sp.
Smicroplectrus robustus Walley, 1937. Canad. Ent. 69: 135. ♀.

velox Walley. Canad. and Transit. Zones; Atlantic to B. C. (Robson) and N. Mex. Host: *Pikonema alaskensis* (Roh.), *P. dimmockii* (Cress.).
Smicroplectrus velox Walley, 1937. Canad. Ent. 69: 132. ♀.

Genus EXYSTON Schiødte

Exyston Schiødte, 1839. *In* Guerin, Mag. Zool., Ins., v. 9, p. 12.
Type: ***Ichneumon cinctulus*** Gravenhorst. Monob.
Anecphysis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 195.
Type: (***Anecphysis curvineura*** Davis)=***Exyston nigreo*** Davis. Included by Davis, 1897.
Tricamptus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 195. N. syn.
Type: (***Cteniscus (Tricamptus) pratorum*** Woldstedt)=***Exyston brevipetiolatus*** Thomson. Included by Woldstedt, 1877.

Most species seem associated with grassy places and are probably parasitic on sod-feeding Dolerinae (Tenthredinidae). The only rearing record confirms this supposition.

cinctulus (Gravenhorst). Canad. to U. Austr. Zones; Atlantic to N. D. and Colo.; Europe, Siberia.
Ichneumon cinctulus Gravenhorst, 1820. Accad. Sci. Torino Mem. 24: 359. ♂.

Cteniscus clavatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 284. ♂. N. syn.
Cteniscus abdominalis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 264. ♀.
Mesoleptus maculosus Provancher, 1875. Nat. Canad. 7: 114. ♀.
Exyston abdominalis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 197. ♂.
Rhimphalea erythrogaster Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 296. ♀.

contractus Davis. N. W. T. to Nev. east to Que. and N. Y.
Exyston contracta Davis, 1897. Amer. Ent. Soc. Trans. 24: 238. ♂.

excelsus (Cresson). N. W. T., B. C., Wash., Oreg., Ariz, east to Ill. and Ont. Mainly in Transit. and U. Austr. Zones.
Cteniscus excelsus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 262. ♀.
Exyston marginatum Provancher, 1886. Addit. Corr. Faune Ent. Canada. Hym., p. 99. ♀. N. syn.

flavens Davis. Mass., Ga., Tex.
Exyston flavens Davis, 1897. Amer. Ent. Soc. Trans. 24: 237. ♀.

humeralis Davis. Sask., Mont., east to Newfoundland.
Exyston humeralis Davis, 1897. Amer. Ent. Soc. Trans. 24: 239. ♂.
Exyston articulatus Davis, 1897. Amer. Ent. Soc. Trans. 24: 239. ♂. N. syn.

nigreo Davis. Transcont. in Huds., Canad., and Transit. Zones.
Exyston nigreo Davis, 1897. Amer. Ent. Soc. Trans. 24: 236. ♂.
Anecphysis curvineura Davis, 1897. Amer. Ent. Soc. Trans. 24: 234. ♀.

speciosus Davis. Canad. and Transit. Zones, B. C. to Calif. and Colo.
Exyston speciosus Davis, 1897. Amer. Ent. Soc. Trans. 24: 237. ♂.

variatus Provancher. Transcont. in Transit. to U. Austr. Zones.
Exyston variatus Provancher, 1877. Nat. Canad. 9: 15. ♀.
Exyston nigroscutum Davis, 1897. Amer. Ent. Soc. Trans. 24: 237. ♂.
Exyston boreotis Davis, 1897. Amer. Ent. Soc. Trans. 24: 238. ♂. N. syn.
Exyston abdominalis var. ***rufinus*** Davis, 1897. Amer. Ent. Soc. Trans. 24: 239. ♀.

venustus (Cresson). U. Sonor. Zone, B. C. to S. Calif., east to S. D.
Cteniscus venustus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 263. ♀.
Exyston politus Davis, 1897. Amer. Ent. Soc. Trans. 24: 240. ♀. N. syn.

Subfamily GELINAE (=CRYPTINAE)

Tribe GELINI (=HEMITELINI)

Members of this tribe attack a great variety of hosts. Many are occasionally or habitually secondary parasites.

Genus BATHYTHRIX Foerster

Ischnurgops Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 175.
Type: ***Cryptus claviger*** Taschenberg. Desig. by Viereck, 1914.
Steganops Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 175.
Type: ***Cryptus claviger*** Taschenberg. Desig. by Viereck, 1914.
Bathythrix Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 176.
Type: ***Bathythrix meteori*** Howard. Desig. by Viereck, 1914.
Panargyrops Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 182.
Type: ***Cryptus claviger*** Taschenberg. Desig. by Viereck, 1914.
Chaeretymma Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 187.
Type: (***Cryptus ater*** Brischke)=[***Cryptus***] ***claviger*** (Taschenberg). Desig. by Cushman, 1920.
Gausocentrus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 198.
Type: ***Gausocentrus gyrini*** Ashmead. Included by Ashmead, 1894.
Leptocryptus Thomson, 1873; 1884. Opusc. Ent., fasc. 5, p. 521; fasc. 10, p. 963.
Type: ***Cryptus claviger*** Taschenberg. Desig. by Viereck, 1914.
Chrysocryptus Cameron, 1902. Straits Brit. Roy. Asiatic Soc. Jour. 37: 58.
Type: ***Chrysocryptus aureopilosa*** Cameron. Monob.

Revisions: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 261–264.—Viereck, 1925. Canad. Ent. 57: 77–78.

areolaris (Cushman). Oreg. (Sweet Home). Host: *Neodiprion tsugae* Midd.
Panargyrops areolaris Cushman, 1939. Wash. Acad. Sci. Jour. 29: 397. ♂ ♀.
Biology: Furniss and Dowden, 1941. Jour. Econ. Ent. 34: 49, 51.

claviger (Taschenberg). Transcont. in Canad. and Transit. Zones; Europe. Host: *Ametastegia glabrata* (Fall.).
Cryptus claviger Taschenberg, 1865. Ztschr. Gesam. Naturw. Halle 25: 76. ♂.
Mesostenus sericeus Provancher, 1875. Nat. Canad. 7: 264, 267. ♂.
Cryptus sericeifrons Provancher, 1879. Nat. Canad. 11: 132. ♀.
Bathythrix tibialis Cushman, 1917. U. S. Natl. Mus. Proc. 53: 458. ♂ ♀.
?Panargyrops texanus Cushman, 1920. U. S. Natl. Mus. Proc. 58: 262. ♀. Preocc.
Panargyrops pacificus Cushman, 1920. U. S. Natl. Mus. Proc. 58: 262. ♀.
Thysiotorus* (*Panargyrops*) *tegularis Viereck, 1925. Canad. Ent. 57: 78. ♀.
Thysiotorus* (*Panargyrops*) *conjunctus Viereck, 1925. Canad. Ent. 57: 78. ♂ ♀.

fragilis (Viereck). N. Mex. (Beulah).
Plesiognathus (!) ***fragilis*** Viereck, 1903. Amer. Ent. Soc. Trans. 29: 81. ♂.

gyrini (Ashmead). Iowa (Independence). Host: *Gyrinus* sp.
Gausocentrus gyrini Ashmead, 1894. Canad. Ent. 26: 25. ♂.
Hemiteles gyrinophagus Cushman, 1930. U. S. Natl. Mus. Proc. 76 (25): 5. N. name.
Taxonomy: Butcher, 1933. Ent. Soc. Amer. Ann. 26: 79.

insula (DeGant). N. Y., Ont.
Panargyrops insula DeGant, 1933. U. S. Natl. Mus. Proc. 82: 2. ♂ ♀.

latifrons (Cushman). Wash., Oreg. Transit. Zone. Host: *Neodiprion tsugae* Midd.
Thysiotorus latifrons Cushman, 1939. Wash. Acad. Sci. Jour. 29: 396. ♂ ♀.
Biology: Furniss and Dowden, 1941. Jour. Econ. Ent. 34: 49, 51.

meteori Howard. R. I., N. Y., N. J., D. C., S. C. Host: *Meteorus communis* (Cress.).
Bathythrix meteori Howard, 1897. U. S. Dept. Agr. Div. Ent. Tech. Ser. 5: 31, 53.

peregrina (Cresson). Atlantic to 100° W. in Transit. and U. Austr. Zones.
Mesoleptus? peregrinus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 102. ♂ ♀.
Panargyrops thoracicus Cushman, 1919. U. S. Natl. Mus. Proc. 55: 528. ♀.

pimplae Howard. Atlantic to 100° W. in Transit. and U. Austr. Zones. Hosts: *Gyrinus* sp.; *Gambrus extrematis* (Cress.); *?Iseropus coelebs* (Walsh).
Bathythrix pimplae Howard, 1897. U. S. Dept. Agr. Div. Ent. Tech. Ser. 5: 31, 54.
Biology: Fiske and Thompson, 1909. Jour. Econ. Ent. 2: 459.—Butcher, 1933. Ent. Soc. Amer. Ann. 26: 79–82.
Taxonomy: Butcher, 1933. Ent. Soc. Amer. Ann. 26: 79–82.

subargentea (Cresson). Transcont. in Canad. and Transit. Zones.
Cryptus subargenteus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 302. ♀.
Exolytus sericeifrons Davis, 1898. Amer. Ent. Soc. Trans. 24: 355. ♀.
Thysiotorus* (*Panargyrops*) *seamansi Viereck, 1925. Canad. Ent. 57: 77. ♀.

texana (Ashmead). Tex.
Stilpnus texanus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 397. ♀.

triangularis (Cresson). Atlantic west to Ill. in Transit. and U. Austr. Zones. Hosts: *Apanteles melanoscelus* (Ratz.); *Meteorus versicolor* (Wesm.); *Phobocampe geometrae* (Ashm.).
Mesoleptus triangularis Cresson, 1868. Amer. Ent. Soc. Trans. 2: 101. ♂.
Mesostenus pallipes Provancher, 1875. Nat. Canad. 7: 264, 267. ♀.
Thysiotorus? smithi Cushman, 1920. U. S. Natl. Mus. Proc. 58: 263. ♂ ♀.

Genus AMYDRAULAX Cushman

Amydraulax Cushman, 1922. U. S. Natl. Mus. Proc. 60 (21): 4.
Type: ***Amydraulax pulchra*** Cushman. Orig. desig.

echthroides Townes. Que. to N. C. Transit., U. Austr., and L. Austr. Zones.
Cryptus brevicornis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 67. ♀. Preocc.
Amydraulax echthroides Townes, 1944. Amer. Ent. Soc. Mem. 11: 174. N. name.

pulchra Cushman. Calif. (Giant Forest).
Amydraulax pulchra Cushman, 1922. U. S. Natl. Mus. Proc. 60 (21): 5. ♀.

Genus MASTRUS Foerster

Aenoplex Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 176.
Type: (*Aenoplex betulaecola* Ashmead)=[*Orthocentrus*] *pilifrons* (Provancher). Included by Ashmead, 1896.
Mastrus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 176.
Type: (*Mastrus neodiprioni* Viereck)=[*Phygadeuon*] *argeae* (Viereck). Included by Viereck, 1911.
Isadelphus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 177.
Type: *Hemiteles inimicus* Gravenhorst. Desig. by Viereck, 1914.
Zoophthorus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 180.
Type: (*Hemiteles* (*Zoophthorus*) *nigricaniformis* Viereck)=[*Hemiteles*] *gigas* (Provancher). Included by Viereck, 1917.
Adiastola Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 180.
Type: *Adiastola americana* Howard. Included by Howard, 1897.
Key to species: Cushman, 1917. U. S. Natl. Mus. Proc. 53: 459.

aciculatus (Provancher). Transcont. in Canad. and Transit. Zones. Hosts: *Anarsia lineatella* (Zell.); *Protoboarmia porcelaria* (Guen.); *Itoplectis behrensii* (Cress.).
Hemiteles aciculatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 60. ♂.
Hypocryptus vancouverensis Harrington, 1894. Canad. Ent. 26: 248. ♂.
Phygadeun phryganidiae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 207. ♀.
Taxonomy: Cushman, 1919. U. S. Natl. Mus. Proc. 55: 524.

albiscapus (Ashmead). Tex.
Hemiteles albiscapus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 403. ♂.

americanus (Howard). D. C. Host: ?*Iseropus coelebs* (Walsh).
Adiastola americana Howard, 1897. U. S. Dept. Agr. Div. Ent. Tech. Ser. 5: 54. ♂ ♀.
Hemiteles columbiae Viereck, 1910. N. J. Mus. Ann. Rpt. 1909: 631. N. name.

argeae (Viereck). Transcont. in Canad. and Transit. Zones. Hosts: *Lambdina fiscellaria fiscellaria* (Hulst); *Arge* sp.; *Diprion* (*Gilpinia*) *hercyniae* (Htg.); *Neodiprion tsugae* Midd.; *Neodiprion* (*Zadiprion*) *grandis* (Roh.).
Phygadeuon (*Aenoplex*) *argeae* Viereck, 1911. U. S. Natl. Mus. Proc. 39: 405. ♀.
Phygadeuon (*Mastrus*) *neodiprioni* Viereck, 1911. U. S. Natl. Mus. Proc. 40: 195. ♀.
Biology: Reeks, 1938. Ent. Soc. Ontario Ann. Rpt. 69: 27.—Furniss and Dowden, 1941. Jour. Econ. Ent. 34: 49, 51.

autumnalis (Provancher). Que., R. I.
Atractodes autumnalis Provancher, 1882. Nat. Canad. 13: 367. ♂ ♀.

carpocapsae (Cushman). Transcont. in Transit. and U. Austr. Zones. Hosts: *Carpocapsa pomonella* (L.); *Grapholitha molesta* (Busck;) *Laspeyresia caryana* (Fitch).
Aenoplex carpocapsae Cushman, 1915. U. S. Natl. Mus. Proc. 48: 509. ♀.
Taxonomy: Cushman, 1917. U. S. Natl. Mus. Proc. 53: 461. ♂ ♀.
Biology: Flanders, 1926. Pan-Pacific Ent. 3: 44–45.—McClure, 1933. Ent. News 44: 48–49.—McClure, 1933. Ent. Soc. Amer. Ann. 26: 345–347.—McClure, 1937. Nature Notes 4: 38–40.

caudatus (Provancher). Que., Ont., N. Y.
Echthrus caudatus Provancher, 1875. Nat. Canad. 7: 313. ♀.

Aenoplex longicauda Walley, 1934. Canad. Ent. 66: 240. ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 121.

cressoni (Riley). Mo. Host: *Gnorimoschema gallaesolidaginis* (Riley).
Hemiteles? cressoni Riley, 1869. Ins. Mo. Ann. Rpt. 1: 177. ♂.

extensor (Cushman). Calif. (Palo Alto).
Isadelphus extensor Cushman, 1919. U. S. Natl. Mus. Proc. 55: 527. ♀.

gigas (Provancher). Que., Ont., Mass., Conn., N. Y., N. J., Alta.
Hemiteles gigas Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 59. ♂.
Platylabus giganticus Dalla Torre, 1902. Cat. Hym., v. 3, p. 783. N. name.
Phygadeuon (Bachia?) tumidiformis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 336. ♂.
Hemiteles (Zoophthorus) nigricaniformis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 340. ♂.

hydrophilus (Ashmead). N. S., Maine, N. Y., B. C. Host: *Epinotia nanana* (Treit.).
Hemiteles hydrophilus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 401. ♀.

pilifrons (Provancher). Transcont. in Transit. and U. Austr. Zones. Hosts: *Carpocapsa pomonella* (L.); *Grapholitha molesta* (Busck); *Acronicta betulae* (Riley).
Orthocentrus pilifrons Provancher, 1879. Nat. Canad. 11: 279 "♀"=♂.
Aenoplex betulaecola Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 208. ♀.
Aenoplex plesiotypus Cushman, 1915. U. S. Natl. Mus. Proc. 48: 510. ♀.
Taxonomy: Cushman, 1917. U. S. Natl. Mus. Proc. 53: 460.

polychrosidis (Cushman). R. I., N. Y., Pa. Host: *Polychrosis viteana* (Clem.).
Aenoplex polychrosidis Cushman, 1919. U. S. Natl. Mus. Proc. 55: 524. ♂ ♀.

smithii (Packard). Transcont. in Transit. Zone. Hosts: *Ametastegia glabrata* (Fall.); *Macremphytus tarsatus* (Say); *Gambrus extrematis* (Cress.).
Cryptus Smithii Packard, 1865. Boston Soc. Nat. Hist. Proc. 9: 346. ♂ ♀.
Echthrus rubipes Provancher, 1883. Nat. Canad. 14: 15. ♀.
Phaeogenes crassitelus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 41. ♀.
Hemiteles mucronatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 56. ♂.
Hemiteles compactus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 398. ♀. N. syn.
Aenoplex nigrosoma Cushman, 1917. U. S. Natl. Mus. Proc. 53: 460. ♂ ♀.
Biology: Marsh, 1937. Ecology 18: 110.

subspinosus (Provancher). Que., N. Y., R. I.
Phygadeuon subspinosus Provancher, 1882. Nat. Canad. 13: 336. ♂.

virginiensis (Ashmead). Va.
Hemiteles virginiensis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 404. ♀.

Genus APOTEMNUS Cushman

Apotemnus Cushman, 1940. U. S. Natl. Mus. Proc. 88: 359.
Type: ***Apotemnus truncatus*** Cushman. Orig. desig.

truncatus Cushman. Oreg., Calif.
Apotemnus truncatus Cushman, 1940. U. S. Natl. Mus. Proc. 88: 360. ♀.

Genus OTACUSTES Foerster

Otacustes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 174.
Type: (***Otacustes atriceps*** Ashmead).=***Otacustes crassus chrysopae*** Ashmead. Included by Ashmead, 1894.
Brachycephalus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 179. Preocc.
Type: ***Hemiteles aestivalis*** Gravenhorst. Desig. by Townes, 1944.
Brachycranium Ashmead, 1900. Canad. Ent. 32: 368. N. name for *Brachycephalus*.
Chrysopoctonus Cushman, 1919. U. S. Natl. Mus. Proc. 55: 518.

Type: (***Otacustes atriceps*** Ashmead)=***Otacustes crassus chrysopae*** Ashmead. Orig. desig.

Key: Cushman, 1924. U. S. Natl. Mus. Proc. 64 (4): 1.

Members of this genus parasitize the cocoons of Chrysopidae and Hemerobiidae.

bicolor (Cushman). Fla. (Little River). Host: *Chrysopa lateralis* (Guér.).
Chrysopoctonus bicolor Cushman, 1924. U. S. Natl. Mus. Proc. 64 (4): 1. ♂ ♀.

crassus chrysopae Ashmead. N. C., S. C., Fla., Miss. L. Austr. Zone. Host: *Chrysopa oculata* Say.
Otacustes chrysopae Ashmead, 1894. U. S. Dept. Agr. Insect Life 7: 243. ♂.
Otacustes atriceps Ashmead, 1894. U. S. Dept. Agr. Insect Life 7: 244. ♀.

crassus crassus (Provancher). Atlantic to Cont. Divide in Transit. and U. Austr. Zones. Hosts: *Hemerobius* sp.; *Chrysopa plorabunda* Fitch; *C. harrisii* Fitch; *C. nigricornis* Burm.; *C. rufilabris* Burm.
Hemiteles crassus Provancher, 1882. Nat. Canad. 13: 361. ♂.
Hemiteles rileyi Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 402. ♂.
Hemiteles hemerobii Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 404. ♂.
Hemiteles euryptychiae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 210. ♀.
Hemiteles (Otacustes) cressoniformis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 339, 340. ♀.

Taxonomy: Cushman, 1919. U. S. Natl. Mus. Proc. 55: 520.

crassus patruelis (Cushman). B. C., Wash., Calif. Host: *Chrysopa plorabunda* Fitch.
Chrysopoctonus patruelis Cushman, 1919. U. S. Natl. Mus. Proc. 55: 520. ♂ ♀.

Genus ETHELURGUS Foerster

Ethelurgus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 180.
Type: (***Hemiteles (Ethelurgus) lonicerae*** Viereck)=[***Hemiteles***] ***syrphicola*** (Ashmead). Included by Viereck, 1917.

Zamicrotoridea Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 340.
Type: (***Hemiteles (Zamicrotoridea) orbiformis*** Viereck)=[***Hemiteles***] ***syrphicola*** (Ashmead). Monob.

belfragi (Ashmead). Tex.
Hemiteles belfragi Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 899. ♀.

syrphicola (Ashmead). Atlantic west to Ill. in Transit. and U. Austr. Zones. Hosts: *Allograpta obliqua* (Say); *Syrphus rectus* O. S.
Hemiteles syrphicola Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 405. ♂.
Hemiteles (Ethelurgus) lonicerae Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 340. ♂.
Hemiteles (Zamicrotoridea) orbiformis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 340. ♀.

Genus STIBOSCOPUS Foerster

Stiboscopus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 182.
Type: ***Stiboscopus thoracicus*** Ashmead. Desig. by Viereck, 1914.

brooksi Brooks. W. Va. Host: *Craponius inaequalis* (Say).
Stiboscopus brooksi Brooks, 1918. U. S. Dept. Agr. Bul. 730: 14. ♀.

Biology: Brooks, 1906. W. Va. Agr. Expt. Sta. Bul. 100: 240.—Brooks, 1918. U. S. Dept. Agr. Bul. 730: 14.

Genus ACROLYTA Foerster

Acrolyta Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 174.
Type: (***Acrolyta empretiae*** Ashmead)=[***Ischnocerus***] ***nigricapitata*** (Cook and Davis). Desig. by Viereck, 1914.

Rhadinocera Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 177.
Type: (***Hemiteles (Rhadinocera) algonquinus***) Viereck=[***Ischnocerus***] ***nigricapitata*** (Cook and Davis). Included by Viereck, 1917.

longicornis (Provancher). Que., N. H., N. Y., Wash., Oreg.
Hemiteles longicornis Provancher, 1882. Nat. Canad. 13: 361. ♀.

nigricapitata (Cook and Davis). Atlantic to Cont. Divide in Transit. Zone. Hosts: Recorded from *Sibine stimulea* (Clem.); *Cirphis unipuncta* (Haw.); *Apanteles melanoscelus* (Ratz.).
Ischnocerus nigricapitatus Cook and Davis, 1891. Mich. Agr. Expt. Sta. Bul. 73: 11. ♀.
Acrolyta empretiae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 209. ♀.
Hemiteles laticinctus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 210 ♂.
Hemiteles (Rhadinocera) algonquinus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 340. ♂.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 15.

Genus ISDROMAS Foerster

Isdromas Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 180.
Type: (*Acrolyta aletiae* Ashmead(=[*Hemiteles*] *lycaenae* (Howard). Included by Ashmead, 1900.
Daictimorpha Viereck, 1912. U. S. Natl. Mus. Proc. 42: 636.
Type: *Daictimorpha peruviana* Viereck. Orig. desig.

alticola (Ashmead). Colo., Wash.
Hemiteles alticola Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 22. ♀.

lycaenae (Howard). Atlantic to 100° W. in Transit., U. Austr., and L. Austr. Zones. Hosts: *Depressaria cinereocostella* Clem.; *Bedellia somnulentella* (Zell.); *Bucculatrix* sp. on *Quercus* sp.; *Homadaula albizziae* Clarke; *Gracilaria packardella* Chamb.; *Coleophora malivorella* Riley; *Lycaenopsis pseudargiolus* Bdvl. and Lec.; *Apanteles aletiae* Riley; *Meteorus* sp.; *Campoletis perdistinctus* (Vier.).
Hemiteles lycaenae Howard, 1889. *In* Scudder, Butterflies of Eastern U.S. and Canada, v. 3, p. 1880. ♀.
Hemiteles bucculatricis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 401. ♀.
Hemiteles gracilariae Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 401. ♀.
Orthopelma bedelliae Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 415. ♂.
Acrolyta aletiae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 209. ♂ ♀.
Sychnoporthus (!) *tuckeri* Viereck, 1905. Kans. Acad. Sci. Trans. 19: 315. ♀.

mesochori (Ashmead). Pa., D. C., N. C., S. C., Ark. Host: *Apanteles congregatus* (Say).
Acrolyta mesochori Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 208. ♀.

piceiventris (Harrington). B. C. (Victoria).
Hemiteles piceiventris Harrington, 1894. Canad. Ent. 26: 213. ♀.

washingtonensis Cushman. Maine, N. H., N. Y., Mich.
Hemiteles (Isdromas) washingtonensis Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 14. ♀.

Genus IDEMUM Foerster

Idemum Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 179.
Type: *Hemiteles (Idemum) crassiformis* Viereck. Included by Viereck, 1917.

crassiformis (Viereck). Conn. (Colebrook).
Hemiteles (Idemum) crassiformis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 340. ♂.

Genus ALEGINA Foerster

Alegina Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 176.
Type: (*Algina* (!) *alaskensis* Ashmead)=[*Stiboscopus*] *solitaria* (Ashmead). Included by Ashmead, 1902.
Philonygmus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 177.
Type: (*Philonygus* (!) *alaskensis* Ashmead)=[*Stiboscopus*] *solitaria* (Ashmead). Desig. by Viereck, 1914.
Barydotira Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 178.
Type: *Barydotira hammari* Viereck. Included by Viereck, 1912.

Terpiphora Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 185.
Type: (***Alegina alaskensis*** Ashmead)=[***Stiboscopus***] ***solitaria*** (Ashmead). Included by Roman, 1909.
Calliphrurus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 210.
Type: ***Calliphrurus granulosus*** Davis. Included by Davis, 1898.

annulata (Ashmead). Calif. (Los Angeles). Host: Tortricid.
Hemiteles annulatus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 402. ♂.

apantelis (Cushman). N. H., Mass., N. Y., N. C. Host: *Apanteles melanoscelus* (Ratz.).
Hemiteles apantelis Cushman, 1927. Jour. Agr. Res. 34: 453. ♂ ♀.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 15.

columbiana (Ashmead). D. C.
Hemiteles columbianus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 402. ♂.

glacialis (Ashmead). Alaska (Lowe Inlet).
Philonygus (!) ***glacialis*** (Ashmead), 1902. Wash. Acad. Sci. Proc. 4: 189. ♂.

granulosa (Davis). Ill.
Calliphrurus granulosus Davis, 1898. Amer. Ent. Soc. Trans. 24: 290. ♂.

hammari (Viereck). Pa. (North East).
Barydotira hammari Viereck, 1912. U. S. Natl. Mus. Proc. 43: 584. ♀.

pinifoliae (Cushman). Mass. (Lunenburg). Host: *Exoteleia pinifoliella*. (Chamb.).
Hemiteles pinifoliae Cushman, 1933. U. S. Natl. Mus. Proc. 82 (14): 5. ♂ ♀.

sessilis (Provancher). Que., N. Y., S. C.
Hemiteles sessilis Provancher, 1874. Nat. Canad. 6: 334. ♀.

solitaria (Ashmead). Alaska (Popof Isl.).
Stiboscopus solitarius Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 172. ♂.
Algina (!) ***alaskensis*** Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 188. ♀.
Philonygus (!) ***alaskensis*** Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 189. ♂.
Ilapinastes incertus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 190. ♂.

testaceipes (Cushman). N. H., N. Y., Pa.
Lymeon? testaceipes Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 17. ♀.

Genus CYRTOBASIS Cushman

Cyrtobasis Cushman, 1919. Ent. Soc. Wash. Proc. 21: 114, 115.
Type: (***Cyrtobasis rogae*** Cushman)=[***Polysphincta***] ***bicarinata*** (Riley). Orig. desig.

bicarinata (Riley). Ill., Mo., Kans., Colo. Host: *Rogas* sp.
Polysphincta bicarinata Riley, 1871. Ann. Rpt. Insects Mo. 3: 71. ♂.
Cyrtobasis rogae Cushman, 1919. Ent. Soc. Wash. Proc. 21: 115. ♀.

Genus DIAGLYPTIDEA Viereck

Diaglyptidea Viereck, 1913. U. S. Natl. Mus. Proc. 46: 371.
Type: ***Diaglyptidea roepkei*** Viereck. Orig. desig.

lavoiei (Provancher). Que., Maine, N. Y.
Phygadeuon Lavoiei Provancher, 1882. Nat. Canad. 13: 333, 353. ♀.
Hemiteles pallipennis Provancher, 1882. Nat. Canad. 13: 360. ♂ ♀.

Genus PHOBETES Foerster

Allocota Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 173. Preocc.
Type: ***Allocota confederatae*** Ashmead. Included by Ashmead, 1896.
Syneches Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 173. Preocc.
Type: (***Hemiteles? thyridopterigis*** Riley)=[***Hemiteles***] ***thyridopteryx*** (Riley). Included by Ashmead, 1900.
Diaglypta Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 176.
Type: ***Diaglypta radiata*** Ashmead. Included by Ashmead, 1895.

Phobetes Foerster, 1868. Naturh. Ver. Rheinlande 25: 198.
Type: (***Phobetes albinopennis*** Davis)=[***Hemiteles***] ***thyridopteryx*** (Riley). Included by Davis, 1898.
Hymenosyneches Viereck, 1912. U. S. Natl. Mus. Proc. 42: 149. N. name for *Syneches*.

Members of this genus prefer Psychidae as hosts.

confederatae (Ashmead). Mo., Fla., La. Hosts: *Eurukuttarus confederatus* Grote; *Platoeceticus nigritus* B. and McD.
Allocota confederatae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 208. ♀.

conspicuus (Cresson). Tex.
Hemiteles conspicuus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 161. ♀.
Taxonomy: Walley, 1941. Canad. Ent. 73: 165.

sheppardi (Walley). Que., Ont. Host: *Hyaloscotes* sp.
Allocota sheppardi Walley, 1941. Canad. Ent. 73: 165. ♀.

thyridopteryx (Riley). Transcont. in U. Austr., L. Austr., and Tropical Zones; Mexico. Hosts: *Thyridopteryx ephemeraeformis* (Haw.); *Grapholitha molesta* (Busck); *Hemerocampa leucostigma* (A. and S.); *Iseropus coelebs* (Walsh); *Itoplectis conquisitor* (Say). Parasite: Chalcidid.
Hemiteles? thyridopteryx Riley, 1869. Ins. Mo. Ann. Rpt. 1: 150. ♂ ♀.
Hemiteles? thyridopterigis Riley, 1881. U. S. Ent. Comm. Bul. 6: 65. Emend.
Phobetes albinopennis Davis, 1898. Amer. Ent. Soc. Trans. 24: 311. ♂.
Taxonomy: Howard, 1902. The Insect Book, pl. 8, fig. 37.
Biology: Packard, 1890. U. S. Dept. Agr. Ent. Comm. Rpt. 5: 261.—Howard and Chittenden, 1908. U. S. Dept. Agr. Cir. 6: 97.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 141.—Balduf, 1937. Ent. Soc. Wash. Proc. 39: 177.

Genus HAPLASPIS Townes

Astomaspis of authors, not of the genotype.
Haplaspis Townes, 1944. Amer. Ent. Soc. Mem. 11: 190.
Type: ***Hemiteles mandibularis*** Provancher. Orig. desig.

maesticolor (Roman). Greenland.
Astomaspis maesticolor Roman, 1933. Skrifter om Svalbard og Ishavet 53: 8. ♀.

mandibularis (Provancher). Transcont. in Transit. and U. Austr. Zones. Reported in American literature as *Hemiteles fulvipes*, *Astomaspis fulvipes*, and *A. nanus* (misdet). Hosts: *Apanteles melanoscelus* (Ratz.); *Microplitis gortynae* Riley.
Hemiteles mandibularis Provancher, 1875. Nat. Canad. 7: 315. ♀.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 14.—Cushman, 1928. Cornell Univ. Agr. Expt. Sta. Mem. 101: 929.
Taxonomy: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 14.

Genus ANUROPTROPUS Cushman

Anurotropus Cushman, 1924. U. S. Natl. Mus. Proc. 64 (4): 4.
Type: ***Anurotropus minutus*** Cushman. Orig. desig.

minutus Cushman. Mich., Ill., Conn.
Anurotropus minutus Cushman, 1924. U. S. Natl. Mus. Proc. 64 (4): 5. ♂ ♀.

Genus GELIS Thunberg

Gelis Thunberg, 1827. Soc. Sci. Upsala Nov. Acta 9: 199.
Type: ***Gelis acarorum*** (Linnaeus). Desig. by Viereck, 1914.
Pezomachus Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 867.
Type: ***Mutilla acarorum*** Linnaeus. Desig. by Curtis, 1835.
Pezolochus Foerster, 1850. Arch. f. Naturgesch. 16 (1): 71.
Type: ***Pezolochus rufipes*** Foerster. Monob.
Hemimachus Ratzeburg, 1852. Ichn. d. Forstins., v. 3, p. 157.

Type: (*Hemimachus fasciatus* Ratzeburg)=[*Mutilla*] *melanocephalus* (Schrank). Desig. by Viereck, 1914.

Chirotica Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 173.
Type: ***Chirotica inermis*** Viereck. Included by Viereck, 1903.

Aschistus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 177.
Type: (***Hemimachus variabilis*** Ratzeburg)=[***Ichneumon***] ***cursitans*** (Fabricius). Desig. by Viereck, 1914.

Ilapinastes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 179.
Type: ***Hemiteles*** (***Ilapinastes***) ***davidsonii*** Ashmead. Included by Ashmead, 1896.

Micromeson Strickland, 1912. Ent. Soc. Amer. Ann. 5: 114, 137.
Type: ***Pezomachus*** (***Micromeson***) ***annulatus*** Strickland. Desig. by Viereck, 1914.

Myrmicomorpha Viereck, 1913. U. S. Natl. Mus. Proc. 44: 566.
Type: ***Pezomachus*** (***Myrmicomorpha***) ***perniciosa*** Viereck. Orig. desig.

Leptogelis Ceballos, 1925. Eos 1: 155.
Type: ***Gelis*** (***Leptogelis***) ***ariasi*** Ceballos. Desig. by Townes, 1944.

Revision: Strickland, 1912. Ent. Soc. Amer. Ann. 5: 113–140.

Members of this genus attack various small cocoons, including those of Ichneumonidae and Braconidae, and many parasitize the egg cocoons of spiders.

aciculatus (Strickland). Tex. (Austin).
Pezomachus foersteri Brues, 1910. Wis. Nat. Hist. Soc. Bul. 8: 69. ♀. Preocc.
Pezomachus aciculatus Strickland, 1912. Ent. Soc. Amer. Ann. 5: 136. N. name.

alogus (Viereck). Kans. (Lawrence).
Pezomachus alogus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 321. ♂.

alternatus (Cresson). Ill.
Pezomachus alternatus Cresson, 1872. Canad. Ent. 4: 64. ♀.

annulatus (Strickland). Pa., Md., Tex. Host: Spider eggs.
Pezomachus (***Micromeson***) ***annulatum*** Strickland, 1912. Ent. Soc. Amer. Ann. 5: 137. ♀.

apantelis Cushman. Mass. Hosts: *Apanteles melanoscelus* (Ratz.), *A. solitarius* (Ratz.).
Gelis apantelis Cushman, 1927. Jour. Agr. Res. 34: 454. ♂ ♀.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 16.

atratus (Ashmead). Alta., Colo., Utah. Hosts: *Apanteles* sp., *Hyposoter pilosulus* (Prov.).
Pezolochus atratus Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 22. ♀.
Pezomachus utahensis Strickland, 1912. Ent. Soc. Amer. Ann. 5: 118. ♀.

bicoloratus (Cresson). Tex. (Bosque Co.).
Mesoleptus bicoloratus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 166. ♂.

birkmani (Brues). Tex. (Lee Co.).
Pezomachus Birkmani Brues, 1903. Amer. Ent. Soc. Trans. 29: 121. ♀.

brevistylus (Strickland). Pa., N. Y.
Pezomachus brevistylus Strickland, 1912. Ent. Soc. Amer. Ann. 5: 119. ♀.

bruesii (Strickland). Mass., Pa. Host: Eggs of Gnaphosidae.
Pezomachus obesus Brues, 1910. Wis. Nat. Hist. Soc. Bul. 8: 71. ♀. Preocc.
Pezomachus bruesii Strickland, 1912. Ent. Soc. Amer. Ann. 5: 136. N. name.

californicus (Ashmead). Calif. (Los Angeles).
Pezomachus californicus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 421. ♀.

canadensis (Cresson). Ont., Que.
Pezomachus canadensis Cresson, 1872. Canad. Ent. 4: 62. ♀.
Pezomachus quebecensis Provancher, 1875. Nat. Canad. 7: 330. ♀.

cockerelli (Brues). Colo. (Florissant).
Pezomachus cockerelli Brues, 1910. Wis. Nat. Hist. Soc. Bul. 8: 68. ♀.

coloradensis (Strickland). Colo.
Pezomachus coloradensis Strickland, 1912. Ent. Soc. Amer. Ann. 5: 122. ♀.

compactus (Cresson). Ill.
Pezomachus compactus Cresson, 1872. Canad. Ent. 6: 63. ♀.

crassulus (Brues). Tex. (Austin).
Pezomachus crassulus Brues, 1903. Amer. Ent. Soc. Trans. 29: 123. ♀.

davidsonii (Ashmead). Calif. (Bear Valley at 6000 ft.).
Hemiteles (Ilapinastes) davidsonii Ashmead, 1896. Ent. News 7: 320. ♀.

debilis (Provancher). Ont. (Ottawa).
Hemiteles debilis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 59. ♂.

delicatus (Cresson). Tex. (Bosque Co.).
Mesoleptus delicatus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 166. ♂.

delumbis (Brues). Wash. (San Juan Co.).
Pezomachus delumbis Brues, 1910. Wis. Nat. Hist. Soc. Bul. 8: 75. ♀.

dispar (Strickland). Pa., Md. Host: Spider eggs.
Pezomachus dispar Strickland, 1912. Ent. Soc. Amer. Ann. 5: 125. ♂ ♀.

drassi (Riley). Transcont. in Transit. and U. Austr. Zones.
Hemiteles drassi Riley, 1892. Ent. Soc. Wash. Proc. 2: 296. ♂.
Pezomachus homalommoides Viereck, 1905. Kans. Acad. Sci. Trans. 19: 294. ♂.
Pezomachus testaceicoxus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 322. ♂.

fenestralis (Brues). N. H. (New Brunswick).
Pezomachus fenestralis Brues, 1910. Wis. Nat. Hist. Soc. Bul. 8: 71. ♂.

ferruginosus (Strickland). B. C., Wash.
Pezomachus insolens Brues, 1910. Wis. Nat. Hist. Soc. Bul. 8: 74. ♀. Preocc.
Pezomachus ferruginosus Strickland, 1912. Ent. Soc. Amer. Ann. 5: 136. N. name.
Biology: Furniss and Dowden, 1941. Jour. Econ. Ent. 34: 49, 51.

foveatus (Brues). Mass. (Framingham).
Pezomachus foveatus Brues, 1910. Wis. Nat. Hist. Soc. Bul. 8: 73. ♂.

gelechiae (Ashmead). Calif. (Alameda). Host: *"Gelechia"* sp. on tuber of *Solanum tuberosum.*
Exolytus gelechiae Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 397. ♂.

gracillimus (Dalla Torre). R. I., N. Y., Pa., Tex.
Pezomachus gracilis Cresson, 1872. Canad. Ent. 4: 63. ♀. Preocc.
Pezomachus gracillimus Dalla Torre, 1902. Cat. Hym., v. 3, p. 624. N. name.
Pezomachus angularis Brues, 1903. Amer. Ent. Soc. Trans. 29: 122. ♀.
Pezomachus cressonii Strickland, 1912. Ent. Soc. Amer. Ann. 5: 136. N. name for *P. gracilis.* Preocc.

habilis (Brues). Mass. (Woods Hole).
Pezomachus habilis Brues, 1910. Wis. Nat. Hist. Soc. Bul. 8: 72. ♀.

inermis (Viereck). N. Mex. (Beulah).
Chirotica inermis Viereck, 1903. Amer. Ent. Soc. Trans. 29: 82. ♂.

insolitus (Howard). D. C. Host: *Hemerocampa leucostigma* (A. and S.).
Pezomachus insolitus Howard, 1897. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 5: 33, 54. ♂.

inutilis Cushman. Mass. Host: *Apanteles melanoscelus* (Ratz.).
Gelis inutilis Cushman, 1927. Jour. Agr. Res. 34: 455. ♂ ♀.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 16.

keenii (Harrington). B. C. (Queen Charlotte Isl.).
Pezomachus Keenii Harrington, 1894. Canad. Ent. 26: 214. ♀.

kukakensis (Ashmead). Alaska (Kukak Bay).
Theroscopus kukakensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 191. ♀.

longipes (Strickland). Calif. (Stanford Univ.).
Pezomachus longipes Strickland, 1912. Ent. Soc. Amer. Ann. 5: 123. ♀.

longistylus (Strickland). No locality.
Pezomachus longistylus Strickland, 1912. Ent. Soc. Amer. Ann. 5: 120. ♀.

lymensis (Strickland). Conn. (Lyme). Host: Gnaphosid eggs.
Pezomachus (Micromeson) lymense Strickland, 1912. Ent. Soc. Amer. Ann. 5: 138. ♀.

macer (Cresson). Mass., N. Y., Pa., Md., Ohio, Tex. Host: *Epeira foliata* (Fourc.) "nest."
Pezomachus macer Cresson, 1872. Canad. Ent. 4: 64. ♂.
Pezomachus flavocinctus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 421. ♀

maculatus (Strickland). Calif. (San Diego).
Pezomachus maculatus Strickland, 1912. Ent. Soc. Amer. Ann. 5: 121. ♀.

manni (Strickland). Calif. (Pacific Grove).
Pezomachus manni Strickland, 1912. Ent. Soc. Amer. Ann. 5: 132. ♂.

meabilis (Cresson). Atlantic to 100° W. in U. Austr. Zone. Host: Eggs of *Agelenopsis naevia* (Walck.).
Pezomachus meabilis Cresson, 1872. Canad. Ent. 4: 62. ♀.
Pezomachus dimidiatus Cresson, 1872. Canad. Ent. 4: 63. ♀.
Pezomachus similis Strickland, 1912. Ent. Soc. Amer. Ann. 5: 127. ♂ ♀.
Pezomachus nodosus Strickland, 1912. Ent. Soc. Amer. Ann. 5: 128. ♀.

micariae (Howard). Mass., D. C. Host: Eggs of *Micaria* sp.
Pezomachus micariae Howard, 1892. Ent. Soc. Wash. Proc. 2: 294. ♂ ♀.
Hemiteles micarivora Riley, 1892. Ent. Soc. Wash. Proc. 2: 295. ♂.

minimus (Walsh). Ill., Tex. Host: *Apanteles militaris* (Walsh).
Pezomachus minimus Walsh, 1861. Ill. State Agr. Soc. Trans. 4: 463, 468. ♂ ♀.
Taxonomy: Riley, 1870. Ins. Mo. Ann. Rpt. 2: 52. ♂ ♀.
Biology: Walsh, 1861. Ill. State Agr. Soc. Trans. 4: 463, 468.—Riley, 1870. Ins. of Mo. Ann. Rpt. 2: 52.

nigerrimus (Dalla Torre). Calif. (Los Angeles).
Pezomachus niger Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 362. ♀. Preocc.
Pezomachus nigerrimus Dalla Torre, 1902. Cat. Hym., v. 3, p. 630. N. name.

nigriventris (Brues). Tex. (Austin).
Pezomachus texanus var. ***nigriventris*** Brues, 1903. Amer. Ent. Soc. Trans. 29: 122. ♀.

nigrofuscus (Strickland). Pa. (Philadelphia).
Pezomachus nigrofuscus Strickland, 1912. Ent. Soc. Amer. Ann. 5: 133. ♂.

nocuus Cushman. Mass. (Shrewsbury). Host: *Apanteles melanoscelus* (Ratz.).
Gelis nocuus Cushman, 1927. Jour. Agr. Res. 34: 455. ♂ ♀.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 16.

obesus (Ashmead). Alaska (St. Paul Isl.); Sweden.
Theroscopus rufipes Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 191. ♂ ♀. Preocc.
Pezomachus obesus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 193. ♀.
Pezomachus auripes Strickland, 1912. Ent. Soc. Amer. Ann. 5: 134. ♂.
Pezomachus insularis Strickland, 1912. Ent. Soc. Amer. Ann. 5: 136. N. name for *T. rufipes*.
Taxonomy: Roman, 1909. Naturw. Unters. Sarekgebirges Swedish-Lappland, v. 4, p. 230.

obscurus (Cresson). Atlantic to 100° W. in Transit. and U. Austr. Zones. Hosts: *Bucculatrix canadensisella* Chamb.; *Coleophora salmani* Heinr.; *Heterarthrus nemoratus* (Fall.); *Apanteles lacteicolor* Vier.; *A. melanoscelus* (Ratz.); *A. solitarius* (Ratz.).
Pezomachus obscurus Cresson, 1872. Canad. Ent. 4: 62. ♀.
Pezolochus bucculatricis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 240. ♂ ♀.

Theroscopus americanus Ashmead, 1896. Amer. Ent. Soc. Proc. 23: 211. ♂.
Hemiteles ashmeadii Dalla Torre, 1902. Cat. Hym., v. 3, p. 643. N. name for *T. americanus*.
Pezomachus maculicollis Brues, 1903. Amer. Ent. Soc. Trans. 29: 121. ♀.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 16.—Friend, 1927. Conn. Agr. Expt. Sta. Bul. 288: 449, 450.
Taxonomy: Cushman, 1927. Jour. Agr. Res. 34: 456. ♂ ♀.—Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 16.

ottawaensis (Harrington). Ont. (Ottawa).
Pezomachus ottawaensis Harrington, 1896. Canad. Ent. 28: 77. ♀.
?Hemiteles ottawaensis Harrington, 1896. Canad. Ent. 28: 78. ♂.

pallidus (Ashmead). Tex.
Hemiteles pallidus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 406. ♂.

pennsylvanicus (Strickland). Pa. (N. Cumberland).
Pezomachus pennsylvanicus Strickland, 1912. Ent. Soc. Amer. Ann. 5: 126. ♀.

perniciosus (Viereck). Tex. Hosts: *Apanteles militaris* (Walsh); *Meteorus laphygmae* Vier.; *Rogas laphygmae* Vier.
Pezomachus (Myrmicomorpha) perniciosa Viereck, 1913. U. S. Natl. Mus. Proc. 44: 566. ♀.

pettitii (Cresson). Ont., Que., R. I.
Pezomachus Pettitii Cresson, 1872. Canad. Ent. 4: 61. ♀.
Pezomachus sulcatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 77. ♀.
Taxonomy: Harrington, 1896. Canad. Ent. 28: 75. ♂ ♀.

popofensis (Ashmead). Alaska. (Popof Isl.).
Theroscopus popofensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 192. ♂.

prosthesimae (Riley). Mass. (Salem). Host: Eggs of *Zelotes subterraneus* (Koch).
Hemiteles prosthesimae Riley, 1892. Ent. Soc. Wash. Proc. 2: 294. ♂.

pumilus (Foerster). Alaska; Europe.
Pezomachus pumilus Foerster, 1850. Arch. f. Naturgesch. 16 (1): 131. ♀.
Pezomachus alaskensis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 421. ♀.
Pezomachus nigrellus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 192. ♂ ♀.
Pezomachus minutus Strickland, 1912. Ent. Soc. Amer. Ann. 5: 119. ♀.
Taxonomy: Roman, 1909. Naturw. Unters. Sarekgebirges Swedish-Lappland, v. 4, p. 232.

robustus (Strickland). Ariz. (Tuscon).
Pezomachus robustus Strickland, 1912. Ent. Soc. Amer. Ann. 5: 120. ♀.

rotundiceps (Cresson). Tex. (Bosque Co.).
Mesoleptus? rotundiceps Cresson, 1872. Amer. Ent. Soc. Trans. 4: 167. ♂.

spiraculus (Strickland). N. Y., N. C. Host: *Microplitis gortynae* Riley.
Pezomachus spiraculus Strickland, 1912. Ent. Soc. Amer. Ann. 5: 124. ♀.
Gelis microplitidis Gahan, 1922. U. S. Natl. Mus. Proc. 61: 5. ♂ ♀.

stanfordensis (Strickland). Calif. (Stanford).
Pezomachus stanfordensis Strickland, 1912. Ent. Soc. Amer. Ann. 5: 123. ♀.

stigmaterus (Cresson). Tex. (Bosque Co.).
Mesoleptus? stigmaterus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 167. ♂.

stigmatus (Ashmead). Colo. (West Cliff).
Hemiteles stigmatus Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 21. ♂.

stricklandi Townes. Calif. (Los Angeles).
Cremnodes californicus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 420. ♀. Preocc.
Pezomachus ashmeadii Strickland, 1912. Ent. Soc. Amer. Ann. 5: 135. N. name. Preocc.
Gelis stricklandi Townes, 1944. Amer. Ent. Soc. Mem. 11: 202. N. name

tantillus (Cresson). R. I., Pa., Ill.
Pezomachus gentilis Cresson, 1872. Canad. Ent. 4: 61. ♂ ♀. Preocc.

Pezomachus tantillus Cresson, 1872. Canad. Ent. 4: 62. ♀.
Pezomachus cressonii Dalla Torre, 1902. Cat. Hym., v. 3, p. 621. N. name for *P. gentilis*.

tenellus (Say). Transcont. in Transit., U. Austr., and L. Austr. Zones; Hawaii. Hosts: Reported from *Chrysopa harrisii* Fitch; *C. nigricornis* Burm.; *C. rufilabris* Burm.; *Bucculatrix* sp. on *Quercus agrifolia*; *Coleophora malivorella* Riley; *C. pruniella* Clem.; *C. salmani* Heinr.; *Acleris variana* (Fern.); *Grapholitha molesta* (Busck); *Mineola indiginella* (Zell.); *Hemerocampa leucostigma* (A. and S.); *Anisota senatoria* (A. and S.); *Coloradia pandora* Blake; *Euphydryas chalcedona* (Dbldy. and Hew.); *Diprion similis* (Htg.); *Neodiprion abietis* (Harr.); *Apanteles lacteicolor* Vier.; *A. melanoscelus* (Ratz.); *A. solitarius* (Ratz.); *Meteorus acronyctae* Mues.; *M. datanae* Mues.; *M. hyphantriae* Riley; *M. versicolor* (Wesm.); *Bracon pygmaeus* (Prov.); *Microplitis gortynae* Riley; *Casinaria orgyiae* (How.); *Enicospilus americanus* (Christ); *Gambrus extrematis* (Cress.); *Hyposoter fugitivus* (Say); *H. pilosulus* (Prov.).
Cryptus tenellus Say, 1836. Boston Jour. Nat. Hist. 1: 233. ♀.
Hemiteles nativorus Walsh, 1869. Canad. Ent. 2: 11. ♀.
Hemiteles nativorus var. ***fuscatus*** Walsh, 1869. Canad. Ent. 2: 12. ♀.
Hemiteles utilis Norton, 1869. Amer. Ent. Soc. Trans. 2: 326. ♀.
Hemiteles depressus Provancher, 1874. Nat. Canad. 6: 334. ♀.
Hemiteles melitaeae Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 399. ♀.
Hemiteles coleophorae Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 400. ♀
Hemiteles variegatus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 400. ♀.
Otacustes orgyiae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 209. ♀.
Otacustes periliti Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 210. ♀.
Otacustes nigro-ornatus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 244. ♀.
Taxonomy: Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 163.
Biology: Dustan, 1923. Acadian Ent. Soc. Proc. 8: 73–78.—Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 12–14.—Proper, 1934. Jour. Agr. Res. 48: 361, 362, 365, 366, 367, 375.—Doner, 1934. Ent. Soc. Amer. Ann. 27: 441, 442.—Doner, 1936. Ent. Soc. Amer. Ann. 29: 228.—Furniss and Dowden, 1941. Jour. Econ. Ent. 34: 49, 51.
Morphology: Dustan, 1923. Acadian Ent. Soc. Proc. 8: 73–78.

terebrator (Ratzeburg). Europe; Greenland.
Pezomachus terebrator Ratzeburg, 1848. Ichn. d. Forstins., v. 2, p. 126. ♀.
Taxonomy: Roman, 1916. Arkiv. for Zool. 10 (22): 8. ♂.

texanus (Cresson). Tex.
Pezomachus texanus Cresson, 1872. Canad. Ent. 4: 64. ♀.

thripites (Taylor). Unrecognizable. No locality.
Pezomachus thripites Taylor, 1860. Amer. Agr. 19: 300. ♀.

uniformis (Dalla Torre). Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: Spider eggs.
Pezomachus unicolor Cresson, 1872. Canad. Ent. 4: 64. ♀. Preocc.
Pezomachus uniformis Dalla Torre, 1902. Cat. Hym., v. 3, p. 635. N. name.

urbanus (Brues). N. Y. Host: *Apanteles melanoscelus* (Ratz.).
Pezomachus urbanus Brues, 1910. Wis. Nat. Hist. Soc. Bul. 8: 70. ♂.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 16.

wheeleri (Brues). Ill. (Rockford).
Pezomachus Wheeleri Brues, 1903. Amer. Ent. Soc. Trans. 29: 123. ♀.

yakutatensis (Ashmead). Alaska (Yakutat).
Atractodes yakutatensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 169. ♂.

Genus ARACHNOLETER Cushman

Arachnoleter Cushman, 1924. U. S. Natl. Mus. Proc. 64 (4): 2.
Type: ***Arachnoleter swezeyi*** Cushman. Orig. desig.

An undescribed species occurs in the Transitional Zone of the Eastern States.

Genus MYERSIA Viereck

Myersia Viereck, 1912. U. S. Natl. Mus. Proc. 43: 575.
Type: *Myersia laminata* Viereck. Orig. desig.

bimaculata (Ashmead). Ind. (Lafayette).
Orthopelma bimaculatum Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 416. ♂.

grandis Cushman. B. C. (Kaslo).
Myersia grandis Cushman, 1921. Ent. Soc. Wash. Proc. 23: 110. ♀.

laminata Viereck. Maine and Que. to Fla., west to Ala.
Myersia laminata Viereck, 1912. U. S. Natl. Mus. Proc. 43: 576. ♀.
Myersia pallida Cushman, 1919. U. S. Natl. Mus. Proc. 55: 522. ♀.
Myersia johnsoni Cushman, 1921. Ent. Soc. Wash. Proc. 23: 110. ♀.
Myersia harringtoni Viereck, 1925. Canad. Ent. 57: 73. ♀.
Taxonomy: Cushman, 1921. Ent. Soc. Wash. Proc. 23: 110. ♂ ♀.

nigra Viereck. B. C. (Keremeos).
Myersia nigra Viereck, 1925. Canad. Ent. 57: 73. ♂.

Genus THAUMATOTYPIDEA Viereck

Thaumatotypidea Viereck, 1912. U. S. Natl. Mus. Proc. 43: 577.
Type: *Cremnodes tuberculatus* Ashmead. Orig. desig.
Key to species: Strickland, 1912. Ent. Soc. Amer. Ann. 5: 115.

canadensis (Harrington). B. C. (Queen Charlotte Isl.).
Cremnodes canadensis Harrington, 1894. Canad. Ent. 26: 213. ♀.

koebelei Cushman. Wash., Oreg.
Thaumatotypidea koebelei Cushman, 1921. Ent. Soc. Wash. Proc. 23: 112. ♂.

spinulata (Strickland). Conn. (New Haven).
Thaumatotypus spinulatus Strickland, 1912. Ent. Soc. Amer. Ann. 5: 116. ♀.

tuberculata (Ashmead). Alaska, Calif.
Cremnodes tuberculatus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 211. ♀.
Cremnodes alaskensis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 211. ♀.

Genus HEMITELES Gravenhorst

Hemiteles Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 780.
Type: (*Hemiteles tristator* Gravenhorst)=*Hemiteles cingulator* Gravenhorst. Desig. by Westwood, 1839.
Ocymorus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 180.
Type: *Hemiteles cingulator* Gravenhorst. Desig. by Townes, 1944.

bicornutus Ashmead. Mo. (St. Louis).
Hemiteles bicornutus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 403. ♂.

cheboyganensis Butcher. Mich. (Burt Lake). Host: *Gyrinus* sp.
Hemiteles cheboyganensis Butcher, 1933. Ent. Soc. Amer. Ann. 26: 77, 79–82.
Biology: Butcher, 1933. Ent. Soc. Amer. Ann. 26: 77, 79–82.

humeralis Provancher. Transcont. in Transit. Zone. Host: *Pissodes strobi* (Peck).
Hemiteles humeralis Provancher, 1874. Nat. Canad. 6: 333. ♀.
Stilpnus appendiculatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 44. ♂.

hungerfordi Cushman. Mich. (Burt Lake). Host: *Gyrinus* sp.
Hemiteles hungerfordi Cushman, 1930. U. S. Natl. Mus. Proc. 76 (25): 4. ♂ ♀.
Biology and Taxonomy: Butcher, 1933. Ent. Soc. Amer. Ann. 26: 79–82.

mellicornis Ashmead. R. I., Conn., N. Y., N. J., D. C., N. C.
Hemiteles mellicornis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 404. ♀.

nigricans Provancher. Que.
Hemiteles nigricans Provancher, 1882. Nat. Canad. 13: 360. ♂.

Genus GNYPETOMORPHA Foerster

Gnypetomorpha Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 173.
Type: *Hemiteles apertus* Thomson. Desig. by Roman, 1924.
Trisacra Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 174.
Type: *Hemiteles apertus* Thomson. Desig. by Townes, 1944.
Microplex Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 175.
Type: *Aclastus rufipes* Ashmead. Included by Roman, 1909.
Aclastus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 175.
Type: *Aclastus rufipes* Ashmead. Included by Ashmead, 1902.

flagellata (Davis). Colo., Alta.
Proclitus flagellatus Davis, 1897. Amer. Ent. Soc. Trans. 24: 246. ♂.

gracilis (Thomson). Greenland; Europe.
Hemiteles gracilis Thomson, 1884. Opusc. Ent., fasc. 10, p. 989. ♂ ♀.
Taxonomy: Roman, 1916. Arkiv för Zool. 10 (22): 7. ♀.

karlukensis (Ashmead). Alaska (Karluk).
Acrolyta karlukensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 186. ♀.

nigrita (Ashmead). Alaska.
Stibeutes nigrita Ashmead, 1899. Fur Seals and Fur Seal Islands, v. 4, p. 338. ♀.
Spinolia minuta Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 186. ♀.

rufipes (Ashmead). Alaska (St. Paul Isl.).
Stiboscopus alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 171. ♀.
Acrolyta aciculata Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 186. ♂.
Aclastus rufipes Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 187. ♀.

Genus HEDYLUS Foerster

Hedylus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 183.
Type: *Hedylus crassicornis* Ashmead. Included by Ashmead, 1899.

crassicornis Ashmead. Alaska, N. H. (Mt. Madison).
Hedylus crassicornis Ashmead, 1899. Fur Seals and Fur Seal Islands, v. 4, p. 339. ♀.

Genus STERNOCRYPTUS Roman

Sternocryptus Roman, 1925. Arkiv för Zool. 17A (4): 12.
Type: *Cryptus bitinctus* Gravenhorst. Orig. desig.

bitinctus (Gravenhorst). Maine; Europe.
Cryptus bitinctus Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 576. ♀.

limatus (Cresson). Calif.
Phygadeuon limatus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 358. ♀.

occidentalis (Harrington). B. C. (Victoria).
Hemiteles occidentalis Harrington, 1894. Canad. Ent. 26: 213. ♀.

subspinosus (Provancher). Que., N. Y., Alta.
Hemiteles subspinosus Provancher, 1874. Nat. Canad. 6: 333. ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 123.

Genus ENDASYS Foerster

Subgenus ENDASYS Foerster

Endasys Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 184.
Type: *Stylocryptus analis* Thomson. Desig. by Viereck, 1914.
Bachia Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 186. Preocc.
Type: *Phygadeuon (Bachia) testaceipes* Brischke. Included by Brischke, 1888.
Stylocryptus Thomson, 1873. Opusc. Ent., fasc. 5, p. 520.
Type: *Phygadeuon brevis* Gravenhorst. Monob.
Amphibulus Kriechbaumer, 1893. Ent. Nachr. 19: 122.
Type: *Amphibulus gracilis* Kriechbaumer. Monob.
Bachiana Strand, 1928. Arch. f. Naturgesch. 92A (8): 52. N. name for *Bachia*.

auriculiferus (Viereck). Conn., N. Y.
Phygadeuon (Bachia?) auriculiferus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 336. ♂.

bicolor (Lundbeck). Greenland.
Phygadeuon bicolor Lundbeck, 1897 (1896). Nat. For København Vidensk. Medd., p. 227. ♀.
Taxonomy: Roman, 1916. Arkiv för Zool. 10 (22): 4, 5.

maculatus (Provancher). Que., N. Y., N. J., N. C.
Phygadeuon maculatus Provancher, 1875. Nat. Canad. 7: 178, 182. ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 67. ♀.—Provancher, 1882. Nat. Canad. 13: 333, 353. ♂.

montanus (Cresson). Colo.
Phygadeuon montanus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 309. ♀.
Phygadeuon monticola Dalla Torre, 1902. Cat. Hym., v. 3, p. 689. N. name.

mucronatus (Provancher). Que., R. I., N. Y., N. J., W. Va. Host: *Arge macleayi* (Leach).
Phygadeuon mucronatus Provancher, 1879. Nat. Canad. 11: 73. ♀.
Taxonomy: Provancher, 1882. Nat. Canad. 13: 334, 335, 353. ♂.

paludicola (Brues). Colo. (Florissant).
Oxytorus paludicola Brues, 1908. Wis. Nat. Hist. Soc. Bul. 6: 50. ♂.

pubescens (Provancher). Maine and Que. to N. C., west to Alta.
Phygadeuon pubescens Provancher, 1874. Nat. Canad. 6: 282. ♂.
Phygadeuon dubius Provancher, 1874. Nat. Canad. 6: 283. ♀.
Alomya pulchra Provancher, 1875. Nat. Canad. 7: 120. ♂.
Phygadeuon pallicoxus Provancher, 1879. Nat. Canad. 11: 75. ♂.
Phygadeuon pallidicoxus Dalla Torre, 1902. Cat. Hym., v. 3, p. 690. Emend.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 72, 75.

rotundiceps (Provancher). Que.
Phygadeuon rotundiceps Provancher, 1877. Nat. Canad. 9: 12. ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 74.

subclavatus (Say). Transcont. in Transit. and U. Austr. Zones. Hosts: *Diprion hercyniae* (Htg.); *Neodiprion tsugae* Midd.; *Zadiprion grandis* Roh.
Cryptus subclavatus Say, 1836. Boston Jour. Nat. Hist. 1: 237. ♀.
Phygadeuon vulgaris Cresson, 1864. Ent. Soc. Phila. Proc. 3: 310. ♀.
Ichneumon inflatus Provancher, 1875. Nat. Canad. 7: 24, 83. ♂.
Phygadeuon (Bathymetis) patulus Viereck, 1911. U. S. Natl. Mus. Proc. 40: 193. ♂.
Phygadeuon (Bachia?) brittoni Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 336. ♂.
Taxonomy: Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 162.
Biology: Reeks, 1938. Ent. Soc. Ontario Ann. Rpt. 69: 27.—Furniss and Dowden, 1941. Jour. Econ. Ent. 34: 49, 51.

texanus (Cresson). Tex. (Comal Co.).
Phygadeuon texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 160. ♂.

Subgenus GLYPHICNEMIS Foerster

Glyphicnemis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 181.
Type: *Phygadeuon vagabundus* Gravenhorst. Desig. by Ashmead, 1900.
Gnathocryptus Thomson, 1873. Opusc. Ent., fasc. 5, p. 520.
Type: *Phygadeuon vagabundus* Gravenhorst. Orig. desig.
Semiodes Harrington, 1894. Canad. Ent. 26: 247.
Type: (*Semiodes seminiger* Harrington)=[*Phygadeuon*] *mandibularis californicus* (Cresson). Monob.

mandibularis californicus (Cresson). B. C., Wash., Oreg., Calif.
Phygadeuon californicus Cresson, 1878. Acad. Nat. Sci. Phila. Proc., 358. ♂.
Semiodes seminiger Harrington, 1894. Canad. Ent. 26: 247. ♂.

mandibularis mandibularis (Cresson). Atlantic to Cont. Divide in Transit. Zone.
Phygadeuon mandibularis Cresson, 1864 Ent. Soc. Phila. Proc. 3: 311. ♀.
Ischnus ruficornis Provancher, 1875. Nat. Canad. 7: 110. ♂.

Phygadeuon ruficornis Provancher, 1875. Nat. Canad. 7: 179, 182. ♂.
Phygadeuon crassipes Provancher, 1877. Nat. Canad. 9: 11. ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 74, 75.

Genus ERIPLANUS Foerster

Chamerpes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 172.
Type: ***Hemiteles hemipterus*** Gravenhorst. Desig. by Viereck, 1914.
Eriplanus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 180.
Type: (***Hemiteles (Eriplanus) metacomet*** Viereck)=[***Ichneumon***] ***micator*** (Gravenhorst). Included by Viereck, 1917.
Phyrtus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 181.
Type: ***Hemiteles hemipterus*** Gravenhorst. Desig. by Ashmead, 1900.
Aenoplegimorpha Viereck, 1912. U. S. Natl. Mus. Proc. 42: 147.
Type: (***Aenoplegimorpha phytonomi*** Viereck)=[***Ichneumon***] ***micator*** (Gravenhorst). Orig. desig.

autumnalis (Provancher). Que.
Phygadeuon autumnalis Provancher, 1882. Nat. Canad. 13: 336, 357. ♂.

biannulatus (Gravenhorst). Ill., Minn.; Europe. Host: *Limnephilus indivisus* Wlkr.
Hemiteles biannulatus Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 846. ♀.
Biology: Mickel and Milliron, 1939. Ent. Soc. Amer. Ann. 42: 578-580.
Taxonomy: Mickel and Milliron, 1939. Ent. Soc. Amer. Ann. 42: 578-580.

cushmani (Butcher). Mich. (Burt Lake). Host: *Gyrinus* sp.
Hemiteles cushmani Butcher, 1933. Ent. Soc. Amer. Ann. 26: 76, 79-82. ♂ ♀.
Biology: Butcher, 1933. Ent. Soc. Amer. Ann. 26: 76, 79-82.

intermedius (Cresson). Tex. (Bosque Co.).
Phygadeuon intermedius Cresson, 1874. Amer. Ent. Soc. Trans. 4:160. ♀.

micator (Gravenhorst). Atlantic west to Sask. and Utah. Mostly in Transit. Zone; Europe. Host: *Hypera postica* (Gyll.).
Ichneumon micator Gravenhorst, 1807. Vergl. Uebers. Zool. System., p. 260. ♀.
Hemiteles ruficoxus Provancher, 1874. Nat. Canad. 6: 331. ♂ ♀.
Phygadeuon cornutus Provancher, 1882. Nat. Canad. 13: 334, 356. ♀.
Phaeogenes recticornis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 42. ♂ ♀.
Aenoplegimorpha phytonomi Viereck, 1912. U. S. Natl. Mus. Proc. 42: 147. ♂.
Hemiteles (Eriplanus) metacomet Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 340. ♀.
Biology: Webster, 1912. U. S. Dept. Agr., Bur. Ent. Bul. 112: 34.

nigriceps (Ashmead). Calif. (Martinez).
Hemiteles nigriceps Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 400. ♀.

pumilus (Cresson). N. H., R. I., N. Y., N. J., Del.
Cryptus pumilus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 301. ♀.

rubricornis (Ashmead). Va.
Hemiteles rubricornis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 405. ♀.

scapiphorus (Provancher). Que., Mass., N. Y.
Atractodes scapiphorus Provancher, 1874. Nat. Canad. 6: 151. ♂.

Genus PHYGADEUON Gravenhorst

Phygadeuon Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 635.
Type: ***Phygadeuon flavimanus*** Gravenhorst. Desig. by Westwood, 1839.
Habromma Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 176.
Type: (***Habromma nigrum*** Ashmead)=[***Isochresta***] ***unicinctus*** (Ashmead). Included by Ashmead, 1902.
Isochresta Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 181.

Type: ***Isochresta unicinctus*** Ashmead. Included by Ashmead, 1902.

Homelys Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 182. Preocc.
Type: ***Phygadeuon lapponicus*** Thomson. Included by Roman, 1909.

Plesignathus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 183.
Type: ***Phygadeuon cephalotes*** Gravenhorst. Desig. by Ashmead, 1900.

Zaphleges Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 184.
Type: ***Phygadeuon leucostigmus*** Gravenhorst. Desig. by Ashmead, 1900.

Ceratophygadeuon Viereck, 1924. Canad. Ent. 56: 110.
Type: ***Ceratophygadeuon taeniatus*** Viereck. Monob.

Members of this and the following genera of the tribe are parasites of muscoid Diptera.

aciculatus Provancher. Que., N. H., N. Y., Alta.
Phygadeuon aciculatus Provancher, 1882. Nat. Canad. 12: 336, 356. ♂.
Taxonomy: Davis, 1894. Acad. Nat. Sci. Phila. Proc. 46: 186.

albirictus Cresson. Calif.
Phygadeuon albirictus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 358. ♂.

americanus (Cushman). N. H., N. Y.
Plesignathus americanus Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 23. ♀.

brevacus Townes. Que., N. Y., Mich., Minn., Sask.
Platylabus aciculatus (as ***acilatus***, p. 37) Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 36, 37. ♀. Preocc.
Phygadeuon brevacus Townes, 1944. Amer. Ent. Soc. Mem. 11: 220. N. name.

canadensis(Provancher). Que., B. C.
Stilpnus Canadensis Provancher, 1875. Nat. Canad. 7: 112. ♂.
Phygadeuon parallelus Provancher, 1882. Nat. Canad. 13: 335, 355. ♂.

capitalis Provancher. Que., Ont., N. Y.
Phygadeuon capitalis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 57. ♂.
Taxonomy: Davis, 1895. Canad. Ent. 27: 287.

caudatus (Provancher). Que., Alaska.
Cryptus caudatus Provancher, 1875. Nat. Canad. 7: 314. ♀.
Bathymetis bicolor Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 182. ♂ ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 73.

cephalicus Provancher. Que., N. C.
Phygadeuon cephalicus Provancher, 1882. Nat. Canad. 13: 335, 354. ♂.

cincticornis (Provancher). Que. (Hull).
Platylabus cincticornis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 38. ♀.

coloradensis (Ashmead). Colo. (Custer Co.).
Nematomicrus coloradensis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 395. ♀.

cylindraceus Ruthe. Greenland; Europe. Host: ?*Fucellia* sp.
Phygadeuon cylindraceus Ruthe, 1859. Stettin. Ent. Ztg. 20: 367. ♂ ♀.
Biology: Nielsen, 1907. Meddel. om Grønland 39: 385.
Taxonomy: Roman, 1916. Arkiv. för Zool. 10 (22): 5. ♂ ♀.

epochrae Viereck. Mont. (Bozeman). Host: *Epochra canadensis* Loew.
Phygadeuon (Plesignathus) epochrae Viereck, 1913. U. S. Natl. Mus. Proc. 44: 567. ♀.

exiguus (Cresson). Colo.
Ichneumon exiguus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 182. ♀.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 204.

hudsonicus (Cresson). Hudson Bay Territory.

Stilpnus hudsonicus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 95. ♂.

laticinctus Ashmead. Colo. (West Cliff).
Phygadeuon laticinctus Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 21. ♀.

lechevallieri Provancher. Que.
Phygadeuon Lechevallieri Provancher, 1882. Nat. Canad. 13: 334, 356. ♀.

lucens Provancher. Que., Wash.
Phygadeuon lucens Provancher, 1874. Nat. Canad. 6: 281. ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 72.

manitouensis (Viereck). N. Y., Colo. Wash.
Hemiteles (Diaglypta?) manitouensis Viereck, 1905. Kans. Acad. Sci. Trans. 19: 290. ♂.

melanocerus Viereck. R. I., Conn., N. Y.
Phygadeuon (Plesignathus) melanocerus Viereck, 1:17 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 336. ♂.

mignaulti Provancher. Que.
Phygadeuon Mignaulti Provancher, 1882. Nat. Canad. 13: 334, 355. ♀.

mitralis (Provancher). Que. (Bécancour).
Platylabus mitralis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 37. ♀.

montivagus (Ashmead). Colo. (West Cliff).
Phaeogenes montivagus Ashmead, 1890. U. S. Natl. Mus. Proc. 13: 394. ♂.

niger (Ashmead). Alaska.
Bachia niger Ashmead, 1899. Fur Seals and Fur Seal Islands, v. 4, p. 340. ♀.
Bathymetis nigricornis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 177. ♂ ♀
Bathymetis imitator Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 177. ♂ ♀.
Bathymetis simulans Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 178. ♀.
Bathymetis rubrocincta Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 178. ♂ ♀
Bathymetis simillima Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 179. ♂ ♀.
Bathymetis confusa Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 180. ♂ ♀.
Bathymetis ungae Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 180. ♂.
Bathymetis quadriceps Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 181. ♂.
Bathymetis simulator Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 181. ♂.
Plesiognathus (!) rubrocinctus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 184. ♂.
Stiboscopus mandibularis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 172. ♂. Preocc.
Taxonomy: Cushman, 1922. U. S. Natl. Mus. Proc. 60 (21): 3.

nortoni Viereck. Conn., N. Y.
Phygadeuon (Plesignathus) nortoni Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 336. ♂.

ovalis Provancher. Que., N. Y.
Phygadeuon ovalis Provancher, 1875. Nat. Canad. 7: 180, 183. ♂ ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 12.

perditus (Provancher). Ont., N. Y., Sask.
Cryptus perditus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 73. ♂.

pusillus (Cresson). Mass., N. Y., Md., Ill. Marshy meadows.
Cryptus pusillus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 302. ♀.

quintilis Viereck. Conn. (New Haven).
Phygadeuon (Plesignathus) quintilis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 336. ♀.

rufipes (Ashmead). Alaska (Kodiak).
Aenoplex rufipes Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 188. ♂.

sanctipauli (Ashmead). Alaska (St. Paul Isl.).
Stiboscopus sanctipauli Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 171. ♀.

scabrosus (Provancher). Que.
Hemiteles scabrosus Provancher, 1874. Nat. Canad. 6: 332. ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 121.

slossonae Cushman. N. H. (top of Mt. Washington).
Phygadeuon slossonae Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 21. ♀.

solidus Lundbeck. Greenland.
Phygadeuon solidus Lundbeck, 1897 (1896). Nat. For. Københaven Vidensk. Medd., p. 225. ♀.
Taxonomy: Roman, 1916. Arkiv. för Zool. 10 (22): 2.

subfuscus Cresson. Transcont. in Transit. Zone. Host: Recorded from *Paradexodes epilachnae* Ald.
Phygadeuon subfuscus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 311. ♀.
Platylabus crassicornis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 37. ♀.
Taxonomy: Provancher, 1874. Nat. Canad. 6: 281. ♂ ♀.
Biology: Landis and Howard, 1940. U. S. Dept. Agr. Tech. Bul. 721: 7-9.

taeniatus (Viereck). Que., Ont., Sask.; Sweden.
Ceratophygadeuon taeniatus Viereck, 1924. Canad. Ent. 56: 111. ♀.
Taxonomy: Roman, 1938. Ent. Tidskr. 59: 35. ♀.

timidus Cresson. Tex. (Bosque Co.).
Phygadeuon timidus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 161. ♂.

townsendi (Ashmead). Mich.
Hemiteles townsendi Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 405. ♂.

unicinctus (Ashmead). Alaska (St. Paul Isl.).
Habromma nigrum Ashmead, 1902. Wash. Acad. Sci. Proc. 24: 188. ♂. Preocc.
Isochresta unicincta Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 190. ♂.

vernalis (Brues). Mass. (Framingham).
Microcryptus (Theroscopus) vernalis Brues, 1910. Wis. Nat. Hist. Soc. Bul. 8: 77. ♀.

victoriensis Townes. B. C. (Victoria).
Centeterus canadensis Harrington, Canad. Ent. 20: 210. ♀. Preocc.
Phygadeuon victoriensis Townes, 1944. Amer. Ent. Soc. Mem. 11: 226. N. name.

yuasai Bradley. N. Y. (Ithaca).
Phygadeuon (Stibeutes) yuasai Bradley, 1918. Brooklyn Ent. Soc. Bul. 13: 99. ♀.

zapotecus Cresson. Pa., Tenn., S. C.; Mexico.
Phygadeuon zapotecus Cresson, 1873. Acad. Nat. Sci. Phila. Proc. 25: 140. ♂.

Genus ISELIX Foerster

Iselix Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 182.
Type: *Phygadeuon nitidus* Gravenhorst. Desig. by Viereck, 1914.
Ischnocryptus Kriechbaumer, 1892. Ent. Nachr. 18: 351.
Type: *Phygadeuon nitidus* Gravenhorst. Desig. by Viereck, 1914.

There are several undescribed Neartic members of this genus.

Genus CAENOMERIS Foerster

Caenomeris Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 174.
Type: *Xestophya nigripes* Ashmead. Desig. by Townes, 1944.

nigripes (Ashmead). Alaska.
Xestophya polita Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 162. ♂ ♀.
Xestophya nigripes Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 163. ♂.

Genus STILPNUS Gravenhorst

Stilpnus Gravenhorst, 1829. Ichn. Europaea, v. 1, p. 664.
Type: *Stilpnus gagates* Gravenhorst. Desig. by Curtis, 1832.
Polyrhembia Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 189.
Type: *Hemiteles tenebricosus* Gravenhorst. Desig. by Foerster, 1876.

americanus Cresson. N. J., Que., Alta.
Stilpnus americanus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 95. ♂ ♀.
Megastylus politus Provancher, 1875. Nat. Canad. 7: 331. ♂.
Hemiteles orbicularis Provancher, 1879. Nat. Canad. 11: 123. ♂.

anthomyidiperda Viereck. Tenn. (Clarksville). Host: Anthomyiid on *Nicotiana tabacum.*
Stilpnus anthomyidiperda Viereck, 1912. U. S. Natl. Mus. Proc. 42: 644. ♀.

laevis Provancher. Que.
Stilpnus laevis Provancher, 1882. Nat. Canad. 13: 332. ♀.

tenebricosus (Gravenhorst). Greenland; Europe.
Hemiteles tenebricosus Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 785. ♂.
Taxonomy: Roman, 1916. Arkiv för Zool. 10 (22): 8. ♂ ♀.

Genus MESOLEPTUS Gravenhorst

Mesoleptus Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 3.
Type: *Ichneumon laevigatus* Gravenhorst. Desig. by Curtis, 1937.
Exolytus Holmgren, 1858. Öfvers. Svenska Vetensk.-Akad. Förh. 15: 328
Type: *Ichneumon laevigatus* Gravenhorst. Monob.

borealis (Davis). Hudson Bay Territory.
Exolytus borealis Davis, 1898. Amer. Ent. Soc. Trans. 24: 355. ♂.

davisii (Dalla Torre). Colo.
Exolytus petiolaris Davis, 1898. Amer. Ent. Soc. Trans. 24: 355. ♂. Preocc.
Exolytus davisii Dalla Torre, 1902. Cat. Hym., v. 3, p. 727. N. name.

declivus (Provancher). Que., Ont., N. Y., Oreg. Host: *Sepedon fuscipennis* Loew.
Hemiteles declivus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 60. ♂ ♀.
Atractodes sepedontis Ashmead, 1901. N. Y. State Mus. Bul. 47: 588. ♀.

glaucus (Davis). Mich.
Exolytus glaucus Davis, 1898. Amer. Ent. Soc. Trans. 24: 354. ♂ ♀.

ignotus Cresson. N. Y., Ohio, W. Va.
Mesoleptus? ignotus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 103. ♀.
Exolytus melanoscelis DeGant, 1933. U. S. Natl. Mus. Proc. 83: 3. ♀.

incompletus (Provancher). Que., Ont., Conn., N. Y., N. J.
Pyracmon incompletum Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 90. ♀.
Exolytus ithacae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 206. ♀.

Genus ATRACTODES Gravenhorst

Atractodes Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 739.
Type: *Atractodes bicolor* Gravenhorst. Desig. by Westwood, 1839.
Seleucus Holmgren, 1860. Svenska Vetensk. Akad. Handl. 2: 111.
Type: *Seleucus cuneiformis* Holmgren. Monob.
Asyncrita Foerster, 1876. Naturh. Ver. Rheinlande Verh. 33: 29.
Type: *Atractodes foveolatus* Gravenhorst. Desig. by Viereck, 1914.

aciculatus (Davis). N. H., N. Y.
Exolytus aciculatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 354. ♂ ♀.

alamagnus (Davis). Colo.
Exolytus alamagnus Davis, 1898. Amer. Ent. Soc. Trans. 24: 355. ♂.

alaskensis (Ashmead). Alaska, Wash., Oreg.
Exolytus alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 167. ♀.

ambiguus Ruthe. Alaska, N. W. T.; Iceland.
Atractodes ambiguus Ruthe, 1859. Stettin. Ent. Ztg. 20: 377. ♀.
Exolytus ungae Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 167. ♂ ♀.
Exolytus insularis Asmead, 1902. Wash. Acad. Sci. Proc. 4: 168. ♀.

americanus (Ashmead). N. Y., Kans., N. C. Late fall, at carrion.
Ischnus americanus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 394. ♀.

ashmeadi Cushman. N. H. (Mt. Washington, Mt. Madison).
Atractodes ashmeadi Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 6. ♀.

aterrimus Holmgren. Greenland; Novaja–Semlja.
Atractodes aterrimus Holmgren, 1872. Öfvers. Svenska Vetensk. Akad. Förh. 29 (6): 98. ♂.
Taxonomy: Lundbeck, 1897. Nat. For. København Vidensk. Medd. 1896: 238.—Roman, 1916. Arkiv för Zool. 10 (22): 9.—Hendriksen and Lundbeck, 1918. Meddel. om Grønland 22: 540.—Roman, 1930. Ann. Mag. Nat. Hist. (10) 5: 283.—Roman, 1934. Ann. Mag. Nat. Hist. (10) 14: 607. ♂ ♀.

bicolor arcticus Holmgren. Greenland; north. Europe. (*A. bicolor bicolor* Gravenhorst is European).
Atractodes arcticus Holmgren, 1872. Öfvers. Svenska Vetensk. Akad. Förh. 29 (6): 99. ♂.
Taxonomy: Lundbeck, 1897. Nat. For. København Vidensk. Medd. 1896: 239.—Roman, 1916. Arkiv för Zool. 10 (22): 8.— Hendriksen and Lundbeck, 1918. Meddel. om Grønland 22: 540.—Roman, 1934. Ann. Mag. Nat. Hist. (10) 14: 607.

brevissimus (Dalla Torre). N. H., R. I., N. Y., Mich., Wash.
Exolytus brevis Davis, 1898. Amer. Ent. Soc. Trans. 24: 355. ♀. Preocc.
Exolytus brevissimus Dalla Torre, 1902. Cat. Hym., v. 3, p. 727. N. name.

compressus (Cresson). Colo.
Stilpnus? compressus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 260. ♂.

cultus (Davis). Colo.
Exolytus cultus Davis, 1898. Amer. Ent. Soc. Trans. 24: 355. ♀.

dakotaensis (Davis). S. Dak.
Exolytus dakotaensis Davis, 1898. Amer. Ent. Soc. Trans. 24: 354. ♂.

fatuus Townes. N. Mex. (Beulah.).
Phygadeuon polita Viereck, 1903. Amer. Ent. Soc. Trans. 29: 82. ♂. Preocc.
Atractodes fatuus Townes, 1944. Amer. Ent. Soc. Mem. 11: 231. N. name.

gillettei (Ashmead). Colo. (Ft. Collins).
Seleucus gillettei Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 206. ♂.

grandis Cushman. N. H. (top of Mt. Washington).
Atractodes grandis Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 7. ♀.

kincaidi (Ashmead). Alaska.
Exolytus sanctipauli Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 166. ♀.
Exolytus kincaidi Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 167. ♀.

laphroscopoides (Viereck). Ariz. (Oak Creek Canyon at 6000 ft.).
Hemiteles (Diaglypta?) laphroscopoides Viereck, 1905. Kans. Acad. Sci. Trans. 19: 294. ♂.

niger (Ashmead). Alaska.
Exolytus niger Ashmead, 1899. Fur Seals and Fur Seal Islands, v. 4, p. 338. ♀.
Exolytus popofensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 166. ♂ ♀.

nigricoxus Provancher. Que., Mass.
Atractodes nigricoxus Provancher, 1882. Nat. Canad. 13: 368. ♂.
Atractodes nigricoxatus Dalla Torre, 1902. Cat. Hym., v. 3, p. 722. Emend.

pacificus Townes. B. C. (Victoria).
Angitia Americana Harrington, 1894. Canad. Ent. 26: 246. ♀. Preocc.
Atractodes pacificus Townes, 1944. Amer. Ent. Soc. Mem. 11: 232. N. name.

perplexus (Ashmead). Alaska (St. Paul Isl.).
Exolytus perplexus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 165. ♂.

politus (Provancher). Que.
Campoplex politus Provancher, 1874. Nat. Canad. 6: 144. ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 208.—Provancher, 1882. Nat. Canad. 13: 368.

rufiventris (Ashmead). Mich. (Agr. Col.).

Seleucus rufiventris Ashmead, 1898. Amer. Ent. Soc. Trans. 24: 207. ♀.

seldoviae (Ashmead). Alaska (Seldovia).
Exolytus seldoviae Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 168. ♂.

serpedontus Cushman. N. H. (top of Mt. Washington).
Atractodes serpedontus Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 7. ♀.

ungensis (Ashmead). Alaska, Sask.
Exolytus ungensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 169. ♀.
Exolytus rubrocinctus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 169. ♂.

Tribe APTESINI

Members of this tribe are mostly of northern distribution. Most of them are parasitic on sawflies. The genus *Polytribax* seems restricted to Lepidoptera.

Genus CUBOCEPHALUS Ratzeburg

Cubocephalus Ratzeburg, 1848. Ichn. d. Forstins., v. 2, p. 121.
Type: (*Cryptus fortipes* Gravenhorst) = [*Ichneumon*] *distinctor* (Thunberg). Monob.
Ecporthetor Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 184.
Type: (*Phygadeuon fortipes* Gravenhorst) = [*Ichneumon*] *distinctor* (Thunberg). Desig. by Ashmead, 1900.
Pammachus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 185.
Type: *Stenocryptus nigriventris* Thomson. Desig. by Viereck, 1914.
Microcryptus Thompson, 1873. Opusc. Ent., fasc. 5, p. 520.
Type: *Cryptus erythrinus* Gravenhorst. Monob.
Cratocryptus Thompson, 1873. Opusc. Ent., fasc. 5, p. 520, 521.
Type: *Cryptus furcator* Gravenhorst. Desig. by Viereck, 1914.
Stenocryptus Thompson, 1873. Opusc. Ent. fasc. 5, p. 520.
Type: *Stenocryptus nigriventris* Thompson. Orig. desig.

alacris (Cresson). Atlantic to 100° W. Transit. and U. Austr. Zones.
Cryptus alacris Cresson, 1864. Ent. Soc. Phila. Proc. 3: 306. ♀.
Mesostenus nigricornis Provancher, 1875. Nat. Canad. 7: 264, 267. ♂.
Cryptus eburneifrons Provancher, 1879 (May). Nat. Canad. 11: 133. ♂.
Mesostenus collinus Provancher, 1879. (June). Nat. Canad. 11: 111. ♂.
Cryptus mellipes Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 68. ♀.
Cryptus Lavogleri Dalla Torre, 1902. Cat. Hym., v. 3, p. 566. N. name for *M. nigricornis*.

annectus Townes. Que. (St. Gertrude).
Cryptus spissicornis Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 361. ♀. Preocc.
Cubocephalus annectus Townes, 1944. Amer. Ent. Soc. Mem. 11: 234. N. name.

annulatus (Cresson). Que., N. H., Mass., N. Y., Pa., N. J., Ohio, Mich. Transit. Zone.
Phygadeuon annulatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 308. ♀.
Cryptus latus Provancher, 1874. Nat. Canad. 6: 178, 204. ♀. N. syn.
Mesostenus nitidus Provancher, 1874. Nat. Canad. 6: 301. ♂. N. syn.
Cryptus ruficoxus Provancher, 1875. Nat. Canad. 7: 176, 178. ♂.
Mesostenus ruficoxus Provancher, 1875. Nat. Canad. 7: 266, 268. ♂.
Cryptus occidentalis Provancher, 1875. Nat. Canad. 7: 314. ♀.
Phygadeuon inhabilis Provancher, 1877. Nat. Canad. 9: 11. ♀.
Phygadeuon nitidulus Provancher, 1879. Nat. Canad. 11: 70. N. name for *M. nitidus*.
Mesostenus provancheri Dalla Torre, 1902. Cat. Hym., v. 3, p. 546. N. name for *M. ruficoxus*.

atricornis Townes. Que.
Phaeogenes nigricornis Provancher, 1882. Nat. Canad. 13: 330. ♂. Preocc.
Cubocephalus atricornis Townes, 1944. Amer. Ent. Soc. Mem. 11: 235. N. name.

baldaufii (Dalla Torre). Que., N. H., N. Y., Ohio, Mich.
Cryptus scutellatus Provancher, 1877. Nat. Canad. 9: 12. ♂. Preocc.
Cryptus baldaufii Dalla Torre, 1902. Cat. Hym., v. 3, p. 563. N. name.

canadensis (Provancher). Transcont. in Transit. Zone. Host: *Ametastegia glabrata* (Fall.).
Leptobatus Canadensis Provancher, 1875. Nat. Canad. 7: 145. ♀.
Cryptus pentagonalis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 66. ♂ ♀.
Phygadeuon ater Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 20. ♀. N. Syn.
Chaeretymma Ashmeadii Harrington, 1894. Canad. Ent. 26: 212. ♀.
Chaeretymma minuta Cushman, 1917. U. S. Natl. Mus. Proc. 53: 465. ♂ ♀. N. syn.

cincticornis (Cresson). Ill.
Phygadeuon cincticornis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 309. ♀.

circumcinctus circumcinctus (Provancher). Atlantic to Cont. Divide. Transit. Zone.
Cryptus circumcinctus Provancher, 1879. Nat. Canad. 11: 132. ♂.

circumcinctus flavipes (Harrington), n. status. B. C. to Calif. Transit. Zone. Host: *Ametastegia glabrata* (Fall.).
Cryptus flavipes Harrington, 1894. Canad. Ent. 26: 212. ♀.

collaris (Provancher). Que. (St. Gertrude).
Cryptus collaris Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 71. ♂.

erythropus velox (Cresson), n. status. Transcont. in Transit. Zone. *C. erythropus erythropus* Gravenhorst occurs in Europe. Host: *Ametastegia glabrata* (Fall.).
Cryptus velox Cresson, 1864. Ent. Soc. Phila. Proc. 3: 293. ♀.
Cryptus osculatus Provancher, 1874. Nat. Canad. 6: 178. ♂. N. syn.

erythropygus (Provancher). Ont. (Ottawa).
Cryptus erythropygus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 69. ♀.

eximius (Cresson). Maine to N. C., west to Mich. Transit. Zone. Host: Reared with *Macremphytus*.
Mesoleptus eximius Cresson, 1868. Amer. Ent. Soc. Trans. 2: 100. ♂.

ignotus (Provancher), n. comb. Transcont. in Transit. and Canad. Zones.
Cryptus ignotus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 73. ♂.
Cryptus mellicoxus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 75. ♂. N. syn.

impressus (Provancher). Que.
Ischnus impressus Provancher, 1875. Nat. Canad. 7: 112. ♂.

incognitus (Provancher). Que., N. Y., Mich.
Cryptus incognitus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 70. ♂.

laticeps (Cresson). Que., Vt., Conn., Pa., Va., Ohio, Tex. Host: Reared with *Macremphytus*.
Cryptus laticeps Cresson, 1872. Amer. Ent. Soc. Trans. 4: 157. ♂.

maurus (Cresson). B. C. (Victoria).
Echthrus? maurus Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 381. ♀.

pallidus (Cresson). Atlantic to 100° W. Canad. to L. Austr. Zones.
Cryptus pallidus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 307. ♀.

rectus (Provancher). Que., Maine, N. Y.
Cryptus rectus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 75. ♂.

rufifrons (Walsh). ?Ill.
Cryptus rufifrons Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 75. ♀.

schmuckii (Dalla Torre). Ont., N. H., N. Y., Pa., Ohio, Mich. Transit. Zone.

Cryptus longicaudis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 68. ♀. Preocc.
Cryptus schmuckii Dalla Torre, 1902. Cat. Hym., v. 3, p. 588. N. name.

signatus (Provancher). Que.
Cryptus signatus Provancher, 1874. Nat. Canad. 6: 179. ♀.
Cryptus Quebecensis Provancher, 1874. Nat. Canad. 6: 179. ♀.

spissicornis (Provancher). Que.
Cryptus spissicornis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 68. ♂ ♀.

vultus (Cresson). N. Y., Del.
Mesoleptus vultus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 268. ♂.

Genus APTESIS Foerster

Aptesis Foerster, 1850. Arch. f. Naturgesch. 16 (1): 71, 82.
Type: (***Ichneumon sudeticus*** Gravenhorst) = [***Ichneumon***] ***nigrocinctus*** (Gravenhorst). Desig. by Viereck, 1914.
Pezoporus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 181. Preocc.
Type: ***Pezoporus nigrocinctus*** (Gravenhorst). Desig. by Ashmead, 1900.

arridens (Gravenhorst), n. comb. B. C. (Wellington); Europe.
Phygadeuon arridens Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 654.

basizonia (Gravenhorst). Que., N. J. Introduced from Europe. Hosts: *Diprion* (*Gilpinia*) *hercyniae* (Htg.); *Neodiprion sertifer* (Geoff.).
Phygadeuon basizonius Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 748. ♀.
Biology: Finlayson and Reeks, 1936. Canad. Ent. 68: 165, 166.

indistincta (Provancher). N. B., Que., and Wis. south to Md. and W. Va.; also Colo. Transit. and U. Austr. Zones. Hosts: *Diprion hercyniae* (Htg.); *Neodiprion lecontei* (Fitch); *N. abietis* (Harr.); *Nematus ribesii* (Scop.); *Pikonema alaskensis* (Roh.); *Pristiphora erichsonii* (Htg.).
Cryptus micropterus Say, 1836. Boston Jour. Nat. Hist. 1: 238. ♀. Preocc.
Phaeogenes indistinctus Provancher, 1886. Addit. Corr. Faune Ent. Canad. Hym., p. 43. ♂.
Cryptus segregatus Provancher, 1886. Addit. Corr. Faune Ent. Canad. Hym., p. 73. ♂.
Aptesis pterigia Bradley, 1918. Brooklyn Ent. Soc. Bul. 13: 100. ♀. N. name for *C. micropterus*.

iridescens (Cresson). Del.
Ischnus iridescens Cresson, 1864. Ent. Soc. Phila. Proc. 3: 193. ♂.

rubrocincta rubrocincta (Provancher). Que., Maine, N. Y., Mich. Transit. Zone.
Phygadeuon rubrocinctus Provancher, 1874. Nat. Canad. 6: 280. ♀.
Phaeogenes aterrimus Provancher, 1882. Nat. Canad. 13: 330. ♂. N. syn.

rubrocincta n. subsp. Sask., Wash., Oreg. Transit. Zone.

segnis (Provancher). Que.
Phygadeuon segnis Provancher, 1877. Nat. Canad. 9: 11. ♀.

tenthredinarum (Rohwer). N. Y., Sask., Alta. Host: *Profenusa canadensis* Marl.
Pezoporus (***Schenkia***) ***tenthredinarum*** Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 216. ♂ ♀.
Biology: Parrott and Fulton, 1915. N. Y. Agr. Expt. Sta. Bul. 411: 552, 572.

Genus MEGAPLECTES Foerster

Megaplectes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 186.
Type: ***Ichneumon monticola*** Gravenhorst. Included by Schmiedeknecht, 1890.
Iocryptus Thompson, 1873. Opusc. Ent., fasc. 5, p. 470, 472.
Type: (***Phygadeuon regius*** Taschenberg) = [***Ichneumon***] ***monticola*** (Gravenhorst). Monob.

monticola blakei (Cresson). Transcont. in Canad. & Transit. Zones; Alaska. *M. monticola monticola* Gravenhorst is European.
Ichneumon Blakei Cresson, 1864. Ent. Soc. Phila. Proc. 3: 139. ♂.
Cryptus insignis Provancher, 1874. Nat. Canad. 6: 178. ♀.
Hoplismenus stygicus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 34. ♂.

Genus OPIDNUS Foerster

Opidnus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 185.
Type: *Aptesis tsugae* Cushman. By present desig.

albicoxus (Provancher), n. comb. Transcont. in Transit. Zone.
Cryptus brevicornis Provancher, 1875. Nat. Canad. 7: 176, 177. ♂. Preocc.
Mesostenus albicoxus Provancher, 1875. Nat. Canad. 7: 266, 267. ♂.

dorsator (Ashmead), n. comb. Alaska (St. Paul Isl.).
Centeterus dorsator Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 161. ♂.

ferrugineus (Ashmead), n. comb. Alaska (Popof Isl.).
Stiboscopus ferrugineus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 173. ♀.

nigriceps (Provancher), n. comb. Que. (Cap Rouge).
Phygadeuon nigriceps Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 52. ♀.

nivarius (Brues), n. comb. Alaska (Collison Point).
Aptesis nivarius Brues, 1919. Canad. Arctic Exped. 1913-18, v. 3G, p. 21. ♀.

orbitalis (Provancher), n. comb. Que., N. H., N. Y., Sask. Canad. Zone.
Phygadeuon orbitalis Provancher, 1882. Nat. Canad. 13: 335, 354. ♂.

schoberi (Dalla Torre), n. comb. Calif. (Placer Co.).
Cryptus ferrugineus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 412. ♀. Preocc.
Cryptus Schoberi Dalla Torre, 1902. Cat. Hym., v. 3, p. 583. N. name.

tegularis (Provancher), n. comb. Maine and Que. to Pa. and Mich. Canad. and Transit. Zones.
Phygadeuon tegularis Provancher, 1874. Nat. Canad. 6: 282. ♀.
Ichneumon decoratus Provancher, 1875. Nat. Canad. 7: 25, 83. ♂. N. syn.
Phygadeuon (Scinascopus?) orbitaliformis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 336. ♂.

trifasciata (Ashmead), n. comb. Alaska.
Microcryptus trifasciatus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 184. ♂.

tsugae (Cushman), n. comb. Alaska to Oreg. Canad. and Huds. Zones. Host: *Neodiprion tsugae* Midd.
Aptesis (Pezoporus) tsugae Cushman, 1939. Wash. Acad. Sci. Jour. 29: 394. ♂ ♀.
Biology: Furniss and Dowden, 1941. Jour. Econ. Ent. 34: 49, 51.

Genus SCHENKIA Foerster

Schenkia Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 184.
Type: *Cryptus graminicola* Gravenhorst. Desig. by Ashmead, 1900.
Ecpaglus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 185.
Type: (*Phygadeuon brevicornis* Gravenhorst) = [*Phygadeuon*] *graminicola* (Gravenhorst). Desig. by Ashmead, 1900.
Schenckia Dalla Torre, 1901. Wien. Ent. Ztg. 20: 51. Emend.

brevicauda brevicauda (Ashmead), n. comb. Maine to Md., west to Mo. Transit. Zone.
Cryptus brevicauda Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 412. ♀.

brevicauda n. subsp. Wash., Oreg. Transit., Canad., and Huds. Zones.

graminicola graminicola (Gravenhorst). Atlantic to Cont. Divide. Transit. and Canad. Zones. Europe.
Phygadeuon graminicola Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 673. ♀.
Ischnus placidus Provancher, 1875. Nat. Canad. 7: 110. ♂. N. syn.
Phygadeuon rectus Provancher, 1875. Nat. Canad. 7: 178, 182. ♀.
Phaeogenes tuberculifer Provancher, 1882. Nat. Canad. 13: 331. ♀.
Cryptus pubescens Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 72. ♂. Preocc.
Cryptus hechfellneri Dalla Torre, 1902. Cat. Hym., v. 3, p. 574. N. name for *C. pubescens*.

graminicola n. subsp. Wash., Oreg. Transit. Zone.

Genus GIRAUDIA Foerster

Giraudia Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 184.
Type: (***Cryptus congruens*** Gravenhorst) = [***Ichneumon***] ***gyratoria*** (Thunberg). Desig. by Ashmead, 1900.
Calocryptus Thomson, 1873. Opusc. Ent., fasc. 5, p. 519.
Type: (***Cryptus congruens*** Gravenhorst) = [***Ichneumon***] ***gyratoria*** (Thunberg). Monob.
Pseudocryptus Kriechbaumer, 1893. Ent. Nachr. 19: 120.
Type: ***Cryptus grisescens*** Gravenhorst. Monob.

plana (Provancher). Que., N. Y., R. I., Md., D. C. Host: *Tomostethus multicinctus* Roh.
Phygadeuon planus Provancher, 1874. Nat. Canad. 6: 283. ♀.
Phygadeuon robustus Provancher, 1879. Nat. Canad. 11: 75. ♀.
Aptesis ferruginea Cushman, 1935. Wash. Acad. Sci. Jour. 25: 550. ♂ ♀.

rufa (Provancher). Que., N. Y.
Cryptus rufus Provancher, 1874. Nat. Canad. 6: 177, 202. ♂.

Genus POLYTRIBAX Foerster

Polytribax Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 183.
Type: ***Polytribax pallescens*** Viereck. Included by Viereck, 1911.

contiguus (Cresson). Que., Me., and Mich. south to Ill. and Va. Transit. Zone.
Ischnus contiguus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 190. ♂.
Phygadeuon major Cresson, 1864. Ent. Soc. Phila. Proc. 3: 308. ♀.

crotchii (Cresson). Transcont. in Transit. Zone; Alaska.
Phygadeuon Crotchii Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 357. ♀.

fulvescens (Cresson). B. C., Calif.
Phygadeuon fulvescens Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 359. ♀.

pallescens (Viereck). Que. to N. C., west to Kans.; also Ariz. Transit. and U. Austr. Zones. Hosts: *? Hyphantria* sp.; *Proteides clarus* (Cram.).
Phygadeuon (Polytribax) pallescens Viereck, 1911. U. S. Natl. Mus. Proc. 39: 406. ♂ ♀.

Genus RHEMBOBIUS Foerster

Rhembobius Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 184.
Type: (***Phygadeuon quadrispinosus*** (!) Gravenhorst) = [***Phygadeuon***] ***quadrispinus*** (Gravenhorst). Desig. by Ashmead, 1900.
Acanthocryptus Thomson, 1873. Opusc. Ent., fasc. 5, pp. 520, 521.
Type: ***Cryptus quadrispinus*** (Gravenhorst). Orig. desig.

abdominalis abdominalis (Provancher). Atlantic west to Colo. and Sask. Transit. Zone.
Phygadeuon abdominalis Provancher, 1874. Nat. Canad. 6: 280. ♂ ♀.
Phygadeuon 4-carinatus Provancher, 1875. Nat. Canad. 7: 180, 183. ♂.
Taxonomy: Cushman, 1930. U. S. Natl. Mus. Proc. 76 (25): 3.

abdominalis pacificus (Harrington). Sask., Colo., Wash., Calif.; Hawaii. Hosts: *Citibaena strigata* (Fall.); *Merodon equestris* (F.).
Platylabus pacificus Harrington, 1894. Canad. Ent. 26: 210. ♀.
Taxonomy: Cushman, 1930. U. S. Natl. Mus. Proc. 76 (25): 3.

Genus DEMOPHELES Foerster

Demopheles Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 186.
Type: ***Phygadeuon caliginosus*** Gravenhorst. Included by Dalla Torre, 1902.
Mecocryptus Thomson, 1873. Opusc. Ent., fasc. 5, pp. 520, 521.
Type: ***Phygadeuon caliginosus*** Gravenhorst. Orig. desig.

maturus (Provancher). Que., N. Y., Pa., Md., N. C.
Phygadeuon maturus Provancher, 1879. Nat. Canad. 11: 68. ♀.

Tribe SPHECOPHAGINI

Members of this tribe are parasitic in the nests of *Vespula* and *Polistes* (Vespidae).

Genus SPHECOPHAGA Westwood

Sphecophaga Westwood, 1840. Introd. Mod. Classif. Ins. v. 2, Gen. Synop. p. 57.
Type: ***Anomalon vesparum*** Curtis. Monob.
Chyronomon Desvignes, 1856. Cat. Brit. Ichn., p. 47.
Type: ***Anomalon vesparum*** Curtis. Monob.
Cacotropa Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 208.
Type: (***Catotropa sericea*** Thomson) = [***Anomalon***] ***vesparum*** (Curtis). Included by Thomson, 1888.

burra (Cresson). Ont., N. Y., Pa. Hosts: *Vespula arenaria* (F.); *V. maculata* (L.); *V. maculifrons* Roh. Parasite: *Dimmockia incongrua* (Ashm.).
Euceros burrus Cresson, 1869. Canad. Ent. 1: 104. ♀.
Sphecophagus? praedator Zabriskie, 1894. N. Y. Ent. Soc. Jour. 2: 84. ♂ ♀.
Biology: Zabriskie, 1894. N. Y. Ent. Soc. Jour. 2: 81, 86.
—Bequaert, 1932. Ent. Amer. 12: 92.—Schmieder, 1939. Ent. News, 50: 91–97.

Tribe MESOSTENINI (=CRYPTINI)

Members of this tribe are parasitic mostly on pupae and prepupae, or on larvae concealed in tunnels or leaf rolls. Hosts include Lepidoptera, Symphyta, Aculeata, and spider eggs.

Revisions: Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 1–58 (genera with areolet small).—Pratt, 1945. Amer. Midland Nat. 34: 553–560 (larvae and adults).
Biology: Pratt, 1945. Amer. Midland Nat. 34: 550–553.

Genus CHRISTOLIA Brullé

Christolia Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 246.
Type: ***Christolia punctata*** Brullé. Monob.
Crypturopsis Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 45.
Type: ***Crypturus texanus*** Ashmead. Orig. desig.
Lamprocryptidea Viereck, 1913. U. S. Natl. Mus. Proc. 46: 376.
Type: ***Lamprocryptidea magnifica*** Viereck. Orig. desig.
Haplomus Szépligeti, 1916. Mus. Nat. Hungarici Ann. 14: 283. Preocc.
Type: ***Haplomus pulcher*** Szépligeti. Desig. by Townes, 1944.
Aplomiana Strand, 1917. Internatl. Ent. Ztschr. 10: 137. N. name for *Haplomus*.
Revision: Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 22-29.

Members of this genus are parasitic on Limacodidae.

armata (Provancher). Ont.
Mesostenus armatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 76. ♀.

audax (Cresson). N. Y. to Ala. U. Austr. Zone. Mesophytic woods.
Mesostenus audax Cresson, 1878. Canad. Ent. 10:207. ♀.

candida (Cresson), n. comb. R. I., N. J., Md., Va., Fla., Kans.
Mesostenus candidus Cresson, 1878. Canad. Ent. 10: 206. ♂.
Crypturus albomaculatus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 414. ♂.

dumetorum Townes. Conn. to Ga., also Ohio. U. Austr. Zone.
Crypturopsis abdominalis Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 4, 28. ♀. Preocc.
Christolia dumetorum Townes, 1944. Amer. Ent. Soc. Mem. 11: 271. N. name.

fortis (Cresson). N. Y., Md., Kans.
Mesostenus fortis Cresson, 1878. Canad. Ent. 10: 206. ♀.

saundersi (Cresson). "Canada West."
Mesostenus saundersi Cresson, 1878. Canad. Ent. 10: 208. ♀.

texana (Ashmead). Mich., Ohio, S. C., Ga., Fla., Ala., La., Tex. U. Austr. and L. Austr. Zones. Host: *Alarodia slossoniae* (Pack.).
Crypturus texanus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 413. ♂.
Crypturus Dyari Ashmead, 1897. Canad. Ent. 29: 113. ♂ ♀.

Genus TRACHYSPHYRUS Haliday

Cryptus Fabricius, 1804. Systema Piezatorum, p. 70. Preocc.
Type: *Cryptus viduatorius* Fabricius. Desig. by Curtis, 1837.
Trachysphyrus Haliday, 1836. Linn. Soc. London Trans. 17: 317.
Type: *Trachysphyrus imperialis* Haliday. Monob.
Meringopus Foerster, 1868. Naturh. Ver. Rheinlande. Verh. 25: 186.
Type: *Cryptus* (*Meringopus*) *palmipes* Kokujev. Included by Kokujev, 1905.
Itamoplex Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 188.
Type: (*Cryptus americanus* Cresson) = [*Ischnus*] *albitarsis* (Cresson). Desig. by Viereck, 1914.
Goniocryptus Thomson, 1873. Opusc. Ent., fasc. 5, pp. 471, 490.
Type: *Ichneumon titillator* Linnaeus. Desig. by Viereck, 1914.
Hedycryptus Cameron, 1903. Ztschr. System. Hym. Dipt. 3: 298.
Type: *Hedycryptus filicornis* Cameron. Monob.
Cyanocryptus Cameron, 1903. Entomologist 36: 121.
Type: *Cyanocryptus metallicus* Cameron. Monob.
Steriphocryptus Cameron, 1903. Entomologist 36: 233.
Type: *Steriphocryptus luteus* Cameron. Monob.
Lamprocryptus Cameron, 1910. Amer. Ent. Soc. Trans. 35: 435-436. Preocc.
Type: *Cryptus kinbergi* Holmgren. Orig. desig.

This genus in the Holarctic Region has commonly gone under the name *Cryptus*. In the southern portion of South America is a large group of species similar to the Holarctic *Cryptus* but which, because of a peculiar metallic black or blue coloration, has gone under the generic name *Trachysphyrus*. A more natural grouping is to merge the two genera as one, and since the name *Cryptus* Fabricius 1804 is preoccupied, *Trachysphyrus* Haliday is the correct name for the resulting genus.

The name *Cryptus* is an invention of Jurine, who applied it to the sawflies that commonly go under the name *Arge* or *Hylotoma*. Jurine had an extensive work on the generic classification of the Hymenoptera that was long in manuscript form, and while it was in manuscript several workers learned of his new genera and used or discussed them. In 1801 Panzer as an anonymous naturalist (Intelligenzblatt der Litteratur-Zeitung, Erlangen. 1: 153-165) published a paper designed to call attention to

Jurine's unpublished work, for which he expressed great admiration. Included in this notice is an outline of Jurine's classification, in which the genera are listed and many of the new ones validated by characterization or by the inclusion of species. Panzer had received the outline from Jurine in correspondence. Here *Cryptus* appears as a genus of sawflies coextensive with the part of Fabricius' genus *Tenthredo* having the flagellum unsegmented (Argidae of modern classifications). In 1804 Panzer (Faunae Insecta Germaniae, h. 88, pl. 17) used the name *Cryptus* again, in the same sense, with *segmentarius* described and figured as a specific representative of the genus. Jurine's great work on the classification of the Hymenoptera was published in 1807. In this *Cryptus* is used in the same sense as in the preview of 1801 and in Panzer 1804, as applying to argid sawflies. In the meanwhile, however, Fabricius' classification of the Hymenoptera (Systema Piezatorum) had appeared in 1804. There is no evidence to show whether this publication preceded or followed Panzer's 1804 publication of *Cryptus*. Fabricius had learned of Jurine's work and pirated some of the new genera, in some cases using them without regard to Jurine's application. In the case of *Cryptus* he applied the name to a group of ichneumonids rather than to argids, and with his greater fame and prestige influenced most later authors to use the name in this sense.

To bolster the Fabrician usage of *Cryptus* and of certain other generic names of Hymenoptera, the International Commission on Zoological Nomenclature declared in 1939 (Opinion No. 135) that Panzer's first publication of Jurine's genera in 1801 should be regarded as unpublished. It is the authors' opinion that scientific nomenclature should rest on bibliographic and taxonomic facts rather than on the wishes of any organized or unorganized group. *Cryptus* should date from Jurine *in* Panzer, 1801, and should replace *Arge* Schrank, 1802, their genotypes being congeneric. Persons who wish to concur with the opinion of the International Commission on Zoological Nomenclature might date *Cryptus* from Panzer, 1804, or from Fabricius, 1804. Present information does not indicate which of these last two publications is prior, and disregarding the first appearance of the name *Cryptus* in literature would apply the name to either argids or ichneumonids according to which author is shown to be earlier, or according to some arbitrary decision.

This subject is also discussed by Morice and Durrant (1915, Ent. Soc. London Trans. 1915: 339-436) and by Bradley (1919, Ent. Soc. London Trans. 1919: 50-75). Dates of publication of Panzer's *Faunae Insecta Germaniae* are discussed by Sherborn (1923, Ann. Mag. Nat. Hist. (9) 11: 566-568) and the date of publication of Fabricius' *Systema Piezatorum* by Richards (1935, Ent. Soc. London Trans. 83: 144) and by Hedicke (1941, Deut. Ent. Gesell. Mitt. 10: 82-83).

albitarsis albitarsis (Cresson), n. comb. Atlantic to 100° W. Canad., Transit., and U. Austr. Zones. Hosts: *Sanninoidea exitiosa* (Say); *Grapholitha molesta* (Busck); *Psorosina hammondi* (Riley).

Ichneumon vinctus Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 70. ♂. Preocc.

Ischnus albitarsis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 194. ♂.

Cryptus americanus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 297. ♀.

Cryptus nigricalceatus Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 77. ♂.

Cryptus nigricornis Provancher, 1874. Nat. Canad. 6: 177, 201. ♂. Preocc.

Mesostenus tarsatus Provancher, 1875. Nat. Canad. 7: 265, 267. ♂. Preocc.

Nematopodius coxatus Provancher, 1875. Nat. Canad. 7: 269. ♂.

Hoplismenus impar Provancher, 1879. Nat. Canad. 11: 3. "♂" = ♀.

Spilocryptus canarsiae Ashmead, 1897. Ent. Soc. Wash. Proc. 4: 124. ♂.

Cryptus purneri Dalla Torre, 1902. Cat. Hym., v. 3, p. 585. N. name for *C. nigricornis*.

albitarsis coloradensis (Ashmead), n. comb. Pacific to 100° W., incl. Alaska. Canad., Transit., and U. Austr. Zones.
Cryptus coloradensis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 408. ♀.
Cryptus consobrinus Viereck, 1906. Amer. Ent. Soc. Trans. 32: 225. ♀.

altonii (Dalla Torre), n. comb. Transcont. in Canad. and Huds. Zones. Host: *Malacosoma disstria* (Hbn.).
Cryptus proximus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 290. ♀. Preocc.
Cryptus altonii Dalla Torre, 1902. Cat. Hym., v. 3, p. 560. N. name.

arcticus (Schiødte), n. comb. Greenland, Labrador, Alaska, B. C., Colo. Arctic Zone.
Cryptus arcticus Schiødte, 1857. *In* Rink, Naturhistoriske Bidrag til en Beskrivelse af Grønland, p. 57. ♂ ♀.

areolatus (Pratt), n. comb. Calif. (Mammoth).
Cryptus areolatus Pratt, 1945. Amer. Midland Nat. 34: 629. ♀.

aridus (Pratt), n. comb. Nev., Idaho.
Cryptus aridus Pratt, 1945. Amer. Midland Nat. 34: 618. ♀.

associatus (Pratt), n. comb. B. C., Mont., Man., S. Dak.
Cryptus associatus Pratt, 1945. Amer. Midland Nat. 34: 633. ♂ ♀.

asymmetricus (Pratt), n. comb. B. C., Alta., Wash., Idaho, Mont., Oreg., Wyo., Calif., Nev., Utah, Colo., Ariz.
Cryptus asymmetricus Pratt, 1945. Amer. Midland Nat. 34: 587. ♂ ♀.

atritibialis (Pratt), n. comb. Mont., Wyo., N. Mex.
Cryptus atritibialis Pratt, 1945. Amer. Midland Nat. 34: 636. ♂ ♀.

bilobatus (Pratt), n. comb. Oreg., north. Calif.
Cryptus bilobatus Pratt, 1945. Amer. Midland Nat. 34: 592. ♀.

crassifemur (Pratt), n. comb. B. C., Wash., Oreg., Calif.
Cryptus crassifemur Pratt, 1945. Amer. Midland Nat. 34: 582. ♂ ♀.

crassipes (Pratt), n. comb. Calif. (Carrville).
Cryptus crassipes Pratt, 1945. Amer. Midland Nat. 34: 585. ♀.

crassisculptus (Pratt), n. comb. Ariz., N. Mex. Transit. and Canad. Zones.
Cryptus crassisculptus Pratt, 1945. Amer. Midland Nat. 34: 573. ♂ ♀.

crassulus (Pratt), n. comb. Que.
Cryptus crassulus Pratt, 1945. Amer. Midland Nat. 34: 586. ♀.

curticaudus (Pratt), n. comb. Minn., Mont., Colo.
Cryptus curticaudus Pratt, 1945. Amer. Midland Nat. 34: 628. ♀.

dirus (Cresson), n. comb. B. C. and Mont. to Calif. and N. Mex. Host: *Aegeria tibialis* (Harr.).
Cryptus dirus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 359. ♀.
Cryptus violaceipennis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 408. ♂ ♀. Preocc.
Cryptus nitschei Dalla Torre, 1902. Cat. Hym., v. 3, p. 581. N. name.

dorsicarinatus (Pratt), n. comb. B. C., Wash., Idaho, Calif., Utah, Ariz.
Cryptus dorsicarinatus Pratt, 1945. Amer. Midland Nat. 34: 612. ♂ ♀.

flagellatus (Pratt), n. comb. Ariz., N. Mex. Canad. Zone.
Cryptus flagellatus Pratt, 1945. Amer. Midland Nat. 34: 574. ♀.

genatus (Pratt), n. comb. B. C., Alta., Sask., Mont., Nev., Calif., Colo., N. Mex. Hosts: *Malacosoma disstria* Hbn.; *M. fragile* (Stretch).
Cryptus genatus Pratt, 1945. Amer. Midland Nat. 34: 570. ♂ ♀.

inornatus (Pratt), n. comb. Alta., Mont.
Cryptus inornatus Pratt, 1945. Amer. Midland Nat. 34: 612. ♂ ♀.

iroquois (Viereck), n. comb. Que., Ont., Mass., N. Y., Pa.
Agrothereutes (Itamoplex) iroquois Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 333. ♀.

laborator fabricii (Schiødte), n. comb. Greenland. *C. laborator laborator* (Thunberg) is European.
Cryptus Fabricii Schiødte, 1857. *In* Rink, Naturhistoriske Bidrag til en Beskrivelse af Grønland, p. 62. ♂ ♀.
Taxonomy: Schiødte, 1859. Berlin. Ent. Ztschr. 3: 147.—Aurivillius, 1890. Svenska Vetensk. Akad. Förh. Bihang 15: 31.—Roman, 1930. Ann. Mag. Nat. Hist. (10) 5: 283.

latigenalis (Pratt), n. comb. Colo.
Cryptus latigenalis Pratt, 1945. Amer. Midland Nat. 34: 611. ♀.

leucopus (Ashmead), n. comb. B. C., Utah, Colo.
Cryptus leucopus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 409. ♂.

luctuosus (Cresson), n. comb. Transcont. in Canad. and Transit. Zones. Hosts: *Trichiosoma taylori* Prov.; *?Zaraea inflata* Nort.
Cryptus luctuosus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 290. ♀.
Agrothereutes (Itamoplex) ebenus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 333. ♀.
Cryptus caligatus Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13) 2. ♀.

mimicus (Pratt), n. comb. B. C., Alta., Mont., Oreg., Utah, Colo.
Cryptus mimicus Pratt, 1945. Amer. Midland Nat. 34: 607. ♂ ♀.

minimus (Pratt), n. comb. Alta., N. Dak., Mont., Idaho, Wash., Oreg., Wyo., Colo.
Cryptus minimus Pratt, 1945. Amer. Midland Nat. 34: 619. ♀.

mirabilis (Pratt), n. comb. Calif. (Crestline in San Bernadino Co.).
Cryptus mirabilis Pratt, 1945. Amer. Midland Nat. 34: 589. ♀.

mutatus (Pratt), n. comb. B. C., Wash., Oreg., Calif., Idaho, Nev., Wyo., Colo.
Cryptus mutatus Pratt, 1945. Amer. Midland Nat. 34: 634. ♂ ♀.

ocellaris (Pratt), n. comb. Nev. (Reno).
Cryptus ocellaris Pratt, 1945. Amer. Midland Nat. 34: 617. ♀.

pacificus (Cresson), n. comb. B. C., Wash., Oreg., Calif.
Cryptus pacificus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 361. ♂.
Cryptus punicus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 364. ♀.
Cryptus californicus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 411. ♀.

perplexus (Cresson), n. comb. B. C., Wash., Oreg., Calif., Idaho, Nev.
Cryptus proximus var. ***perplexus*** Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 359. ♀.

persimilis (Cresson), n. comb. Transcont. in Transit. and U. Austr. Zones.
Cryptus persimilis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 298. ♀.
Cryptus picticoxus Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 82. ♂.
Cryptus mundus Provancher, 1874. Nat. Canad. 6: 177, 203. ♂.
Cryptus citrinimaculatus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 320. ♂.

recurvatus (Pratt), n. comb. Ariz. (San Francisco); Mexico.
Cryptus recurvatus Pratt, 1945. Amer. Midland Nat. 34: 616. ♀.

relativus (Cresson), n. comb. B. C. and Alta. to Calif. and N. Mex. Host: *Aegeria tibialis* (Harr.).
Cryptus relativus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 359. ♀.
Cryptus pictifrons Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 360. ♂.

robustus (Cresson), n. comb. Alaska and Yukon Terr. south to Calif. and N. Mex., east to Cont. Divide, usually at high altitudes.
Cryptus robustus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 289. ♀.
Cryptus crassicornis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 292. ♂.

rufopedibus (Pratt), n. comb. Wash., Nev.
Cryptus rufopedibus Pratt, 1945. Amer. Midland Nat. 34: 597. ♀.

rufovinctus (Pratt), n. comb. Wash., Oreg., Calif., Idaho, Nev., Utah. Hosts: *Sanninoidea exitiosa graefi* (Hy. Edw.); *Ramosia chrysidipennis* (Bdvl.); *Etiella zinckenella* (Treit.).
Cryptus rufovinctus Pratt, 1945. Amer. Midland Nat. 34: 620. ♂ ♀.

rugosiscutum (Pratt), n. comb. Calif.

Cryptus rugosiscutum Pratt, 1945. Amer. Midland Nat. 34: 572. ♀.

rugulosus (Pratt), n. comb. Alta. (Banff).
Cryptus rugulosus Pratt, 1945. Amer. Midland Nat. 34: 615. ♀.

ruralis (Pratt), n. comb. Alta., Colo.
Cryptus ruralis Pratt, 1945. Amer. Midland Nat. 34: 637. ♀.

serraticaudus (Pratt), n. comb. B. C., Wash., Oreg., Calif., Utah.
Cryptus serraticaudus Pratt, 1945. Amer. Midland Nat. 34: 594. ♂ ♀.

strigosus (Pratt), n. comb. Calif., Nev., Wash.
Cryptus strigosus Pratt, 1945. Amer. Midland Nat. 34: 583. ♂ ♀.

symmetricus (Pratt), n. comb. Alta., B. C., Wash., Utah.
Cryptus symmetricus Pratt, 1945. Amer. Midland Nat. 34: 590. ♂ ♀.

tejonensis (Cresson), n. comb. B. C., Calif.
Cryptus tejonensis Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 360. ♀.
Cryptus vancouverensis Harrington, 1894. Canad. Ent. 26: 211. ♀.

temporalis (Pratt), n. comb. B. C. and Alta. south to Ariz. and N. Mex.
Cryptus temporalis Pratt, 1945. Amer. Midland Nat. 34: 609. ♂ ♀.

Genus COMPSOCRYPTUS Ashmead

Cryptoideus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 42.
Type: ***Cryptus purpuripennis*** Cresson. Orig. desig.
Compsocryptus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 43.
Type: ***Cryptus calipterus*** Say. Orig. desig.
Callicryptus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 43.
Type: (***Cryptus "fasciatus"*** (!) Brullé) = ***Cryptus fasciipennis*** Brullé. Orig. desig.
Stictocryptus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 243. Preocc.
Type: (***Cryptus fasciatipennis*** (!) Brullé) = ***Cryptus fasciipennis*** Brullé. Orig. desig.

Members of this genus are common in the semidesert regions of the southwestern United States.

buccatus (Cresson). Tex. (Bosque Co.).
Cryptus buccatus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 159. ♂ ♀.

calipterus calipterus (Say). Colo., N. Mex., Ariz., south. Calif., Mexico. Semidesert.
Cryptus calipterus Say, 1863. Boston Jour. Nat. Hist. 1: 234. ♀.
Campsocryptus (!) ***brevicornis*** Cameron, 1903. Invertebrata Pacifica 1: 127. ♀.
Cryptus (Mansa?) politicalypterus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 293. ♂.
Taxonomy: Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 160.

calipterus new subspecies. Kans., Tex. Semidesert.

cestus (Say). Ind.
Cryptus cestus Say, 1836. Boston Jour. Nat. Hist. 1: 234. ♀.
Taxonomy: Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 160.

crotchii (Cresson). Calif. (San Diego).
Cryptus Crotchii Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 362. ♂ ♀.

fasciipennis (Brullé). Fla. (Marathon and Matacumbe Key); Cuba.
Cryptus fasciipennis Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 191. ♂ ♀.

fletcheri (Provancher). B. C. (Vancouver Isl.).
Cryptus Fletcheri Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 361. ♀.

purpuripennis (Cresson). Wash., Oreg., Calif., Idaho, Utah.
Cryptus purpuripennis Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 364. ♀.

resolutus (Cresson). Wash., Oreg., Calif., Alta., Idaho, Utah, Colo.
Cryptus resolutus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 363. ♂.

Cryptus Edwardii Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 363. ♀. N. syn.

retentor (Brullé). Gulf and Atlantic States as far north as Staten Island, N. Y. Hosts: *Lagoa pyxidifera* (A. and S.); *Megalopyge opercularis* (A. and S.).
Cryptus retentor Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 192. ♀.
Cryptus comalensis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 159. ♀.
Cryptus nigripennis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 411. ♀.

sororius (Cresson). Tex. (Bosque Co.).
Cryptus sororius Cresson, 1872. Amer. Ent. Soc. Trans. 4: 159. ♂.

turbatus (Cresson). Calif.
Cryptus turbatus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 363. ♀.

Genus PYCNOCRYPTUS Thomson

Pycnocryptus Thomson, 1873. Opusc. Ent., fasc. 5, pp. 471, 500.
Type: (***Ichneumon peregrinator*** Gravenhorst) = [***Ichneumon***] ***director*** (Thunberg). Monob.

director (Thunberg). Atlantic to Sask., in Canad. and Transit. Zones; Europe.
Ichneumon director Thunberg, 1822. Acad. Sci. St. Petersburg Mém. 8: 270. ♂.

Genus MESOSTENUS Gravenhorst

Mesostenus Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 750.
Type: ***Mesostenus transfuga*** Gravenhorst. Desig. by Westwood, 1840.
Stenaraeus Thomson, 1896. Opusc. Ent., fasc. 21, pp. 2378, 2380.
Type: ***Mesostenus transfuga*** Gravenhorst. Desig. by Viereck, 1914.
Derocentrus Cushman, 1919. Ent. Soc. Wash. Proc. 21: 113. N. syn.
Type: (***Coleocentrus texanus*** Ashmead) = ***Mesostenus longicaudis*** Cresson. Orig. desig.
Revision: Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 40–50.

angustus Townes. Atlantic to 100° W. U. Austr. Zone. Thickets and weed patches.
Mesostenus leucopus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 406. ♂. Preocc.
Mesostenus angustus Townes, 1944. Amer. Ent. Soc. Mem. 11: 284. N. name.

eisenii Ashmead. Md., Ga., Tex.; Mexico.
Mesostenus eisenii Ashmead, 1894. Calif. Acad. Sci. Proc. (2) 4: 129. ♀.

gracilis Cresson. Transcont. in L. Austr. and U. Austr. Zones; Mexico; Bermuda Isl. Drier habitats. Hosts: *Ephestia elutella* (Hbn.); *E. figulilella* Greg.; *E. kuhniella* Zell.; *Euzophera-semifuneralis* (Wlkr.); *Laetilia coccidivora* (Comst.); *Ozamia fuscomaculella clarefacta* Dyar; *Zophodia convolutella* (Hbn.).
Mesostenus gracilis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 315. ♂.
Nematopodius orbitalis Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 21. ♀.

longicaudis Cresson. Atlantic to Cont. Divide; Calif. U. Austr. and L. Austr. Zones. Host: *Loxostege sticticalis* (L.).
Mesostenus longicaudis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 164. ♀.
Mesostenus macilentus Cresson, 1878. Canad. Ent. 10: 210. ♂.
Mesostenus gracilipes Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 365. ♀.
Coleocentrus texanus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 444. ♀.
Mesostenus macrurus Dalla Torre, 1901. Cat. Hym., v. 3, p. 544. N. name for *M. longicaudis*.
Nematopodius exclamans Viereck, 1905. Kans. Acad. Sci. Trans. 19: 318. ♀.
Taxonomy: Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 45, 48.

melanurus Cushman. Alta. (Calgary).
Mesostenus melanurus Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 47. ♀.

promptus Cresson. Transcont. in Transit. Zone.
Mesostenus promptus Cresson, 1878. Canad. Ent. 10: 209. ♂.
Mesostenus americanus Cresson, 1878. Canad. Ent. 10: 209. ♀.
Exetastes brevipennis Provancher, 1883. Faune Ent. Canada Hym., p. 386. ♂ ♀.

reliquus Cresson. La. (Cameron); Mexico.
Mesostenus (Polycyrtus) reliquus Cresson, 1873. Acad. Nat. Sci. Phila. Proc. 25: 146. ♂.

thoracicus Cresson. Maine to Ga., west to Wis., Colo., and N. Mex.; also Wash. Mesophytic and dry woods. Hosts: *Acrobasis caryivorella* Rag.; *Ambesa walsinghami* Rag.; *Euzophera semifuneralis* (Wlkr.); *Laetilia coccidivora* (Comst.); *Monoptilota pergratialis* (Hulst); *Phlyctaenia extricalis* (Guen.); *Pyrausta futilalis* (Led.).
Mesostenus thoracicus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 314, ♂ ♀.
Mesostenus erythrogaster Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 406. ♂.

Genus POLYCYRTUS Spinola

Subgenus POLYCYRTUS Spinola

Polycyrtus Spinola, 1840. Soc. Ent. France Ann. 9: 154.
Type: ***Polycyrtus histrio*** Spinola. Desig. by Viereck, 1914.
Polycyrtimorpha Viereck, 1913. U. S. Natl. Mus. Proc. 46: 383.
Type: ***Polycyrtimorpha amoena*** Viereck. Orig. desig.
Revision: Cushman, 1931. U. S. Natl. Mus. Proc. 78 (14): 1–62 (Neotropic and Nearctic spp.).

neglectus Cushman. Mass. and N. Y. south to Fla., Tenn. and Tex. Tropical zone to the warmer parts of Transit. Zone. Moist woods.
Polycyrtus neglectus Cushman, 1926. U. S. Natl. Mus. Proc. 67 (23): 5. ♂ ♀.
Taxonomy: Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 2, 4, 5, 51.—Cushman, 1931. U. S. Natl. Mus. Proc. 78 (14): 6, 44, 58.

Genus CRYPTANURA Brullé

Cryptanura Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 242.
Type: ***Cryptanura nigripes*** Brullé. Desig. by Viereck, 1914.
Polyaenus Cresson, 1873. Acad. Nat. Sci. Phila. Proc. 25: 149.
Type: ***Polyaenus ectypus*** Cresson. Desig. by Viereck, 1914.
Polyaenidea Viereck, 1913. U. S. Natl. Mus. Proc. 46: 381.
Type: ***Polyaenidea pretiosa*** Viereck. Orig. desig.
Revision: Cushman, 1945. U. S. Natl. Mus. Proc. 96: 139–176 (Neotropic and Nearctic spp.).

septentrionalis Cushman. Ohio, Mo.
Cryptanura septentrionalis Cushman, 1945. U. S. Natl. Mus. Proc. 96: 156. ♀.

spinaria (Brullé). Gulf and Atlantic States as far north as R. I. Thickets.
Mesostenus spinarius Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 227. ♀.
Mesostenus albopictus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 312. ♂. Preocc.
Mesostenus delawarensis Dalla Torre, 1901. Cat. Hym., v. 3, p. 540. N. name.
Taxonomy: Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 2, 4, 5, 38.—Cushman, 1945. U. S. Natl. Mus. Proc. 96: 161.

Genus HIDRYTA Foerster

Hidryta Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 187.
Type: ***Brachycryptus erythrocerus*** Thomson. Desig. by Viereck, 1914.
Brachycryptus Thomson, 1873. Opusc. Ent., fasc. 5, pp. 471, 487.
Type: ***Brachycryptus erythrocerus*** Thomson. Desig. by Viereck, 1914.

frater (Cresson). Maine, N. Y., Pa., Md., D. C., Iowa, Colo. Transit. and U. Austr. Zones.
Cryptus frater Cresson, 1864. Ent. Soc. Phila. Proc. 3: 303. ♀.

nigricoxus (Provancher), n. comb. Que., Mass., R. I., N. Y., Va., Ohio.
Cryptus nigricoxus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 361. ♂.
Brachycryptus niger Cushman, 1926. U. S. Natl. Mus. Proc. 67 (23): 7. ♂.

Genus TRYCHOSIS Foerster

Trychosis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 187.
Type: *Cryptus neglectus* Tschek. Desig. by Viereck, 1914.
Goniocryptus of authors, not of the genotype.
Phaedrophadnus Cameron, 1906. Bombay Nat. Hist. Soc. Jour. 17: 285.
Type: *Phaedrophadnus striatus* Cameron. Monob.
Ethaemorpha Viereck, 1913. U. S. Natl. Mus. Proc. 44: 565.
Type: *Cryptus similis* Cresson. Orig. desig.
Orthocryptus Viereck, 1913. U. S. Natl. Mus. Proc. 44: 567.
Type: (*Cryptus monticola* Ashmead) = [*Cryptus*] *sanderi* (Dalla Torre). Orig. desig.

albicaligatus (Walsh). ?Ill.
Cryptus albicaligatus Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 82. ♂.

albisoleatus (Walsh). ?Ill.
Cryptus? albisoleatus Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 80. ♂.

albitarsis (Cresson). Del.
Cryptus albitarsis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 300. ♂.

exulans (Cresson). Tex. (Comal Co.).
Cryptus exulans Cresson, 1872. Amer. Ent. Soc. Trans. 4: 157. ♂.

fusiformis (Provancher). Ont. (Ottawa).
Phygadeuon fusiformis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym. p. 51. ♀.

montivagus (Provancher). Transcont. in Transit. Zone.
Cryptus montivagus Provancher, 1877. Nat. Canad. 9: 12. ♀.

sanderi (Dalla Torre). Colo. (Veta Pass).
Cryptus monticola Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 410. ♀. Preocc.
Cryptus sanderi Dalla Torre, 1902. Cat. Hym., v. 3, p. 587. N. name.

semiruber Townes. Que.
Phygadeuon annulatus Provancher, 1875. Nat. Canad. 7: 179, 182. ♀. Preocc.
Trychosis semiruber Townes, 1944. Amer. Ent. Soc. Mem. 11: 254. N. name.

similis (Cresson). Del.
Cryptus similis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 299. ♀.

subgracilis (Cresson). Atlantic to Cont. Divide in U. Austr. and L. Austr. Zones.
Cryptus subgracilis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 303. ♀.
Cryptus rufoannulatus Provancher, 1874. Nat. Canad. 6: 177, 202. ♂ ♀.

Genus IDIOLISPA Foerster

Idiolispa Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 188.
Type: *Bassus analis* Gravenhorst. Included by Brischke, 1881.
Liocryptus Thomson, 1873. Opusc. Ent., fasc. 5, pp. 471, 489.
Type: *Bassus analis* Gravenhorst. Monob.

analis (Gravenhorst). Ont., Pa., Sask., Alta.; Europe. Transit. Zone.
Bassus analis Gravenhorst, 1807. Vergl. Übers. Zool. System., p. 266.

limata (Cresson). Atlantic to 100° W. U. Austr. Zone.
Cryptus limatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 298. ♀.
Ischnus lentus Provancher, 1875. Nat. Canad. 7: 110. ♂.

Genus APSILOPS Foerster

Apsilops Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 182.
Type: ***Cryptus hirtifrons*** Ashmead. Included by Ashmead, 1896.
Dapanus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 183.
Type: ***Ichneumon cinctorius*** Fabricius. Desig. by Ashmead, 1900.
Sobas Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 187. Preocc.
Type: ***Ichneumon cinctorius*** Fabricius. Included by Schmiedeknecht, 1890.
Trichocryptus Thomson, 1873. Opusc. Ent., fasc. 5, p. 520.
Type: ***Ichneumon cinctorius*** Fabricius. Monob.
Neostricklandia Viereck, 1925. Canad. Ent. 57: 75. N. syn.
Type: ***Neostricklandia sericata*** Viereck. Orig. desig.
Trichestema Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13): 9.
Type: (***Trichestema helcostizoides*** Cushman) = [***Neostricklandia***] ***sericata*** (Viereck). Orig. desig.

bicolor (Cushman). Transcont. in Transit. and U. Austr. Zones.
Host: *Schoenobius melinellus* Clem.
Trichocryptus bicolor Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13): 8. ♀.
Trichocryptus atlanticus Cushman, 1930. U. S. Natl. Mus. Proc. 76 (25): 3. ♀.

hirtifrons (Ashmead). Atlantic to 100° W. L. Austr., U. Austr., and Transit. Zones. Edges of ponds and on lily pads. Host: *Nymphula obliteralis* (Wlkr.).
Cryptus hirtifrons Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 411. ♂.
Taxonomy: Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13): 7.

sericata (Viereck), n. comb. Mass., Que., Mich., S. Dak., Man., Sask., Alta. Canad. Zone. Hosts: *Chilo forbesellus* Fern.; *Occidentalia comptulatalis.* (Hulst).
Neostricklandia sericata Viereck, 1925. Canad. Ent. 57: 75. ♀.
Trichestema helcostizoides Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13): 9. ♀.
Biology: Frohne, 1939. Amer. Micros. Soc. Trans. 58: 234, 325, 347.

Genus GAMBRUS Foerster

Aritranis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 187.
Type: ***Cryptus explorator*** Tschek. Desig. by Viereck, 1914.
Kaltenbachia Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 187.
Type: (***Cryptus ornatus*** Gravenhorst) = [***Ichneumon***] ***incubitor*** (Linnaeus). Desig. by Viereck, 1914.
Gambrus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 188.
Type: ***Gambrus maculatus*** Brischke. Included by Brischke, 1888.
Hygrocryptus Thomson, 1873. Opusc. Ent., fasc. 5, pp. 472, 513.
Type: ***Cryptus carnifex*** Gravenhorst. Desig. by Viereck, 1914.
Allocryptus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 333.
Type: (***Agrothereutes*** (***Allocryptus***) ***hyslopi*** Viereck) = [***Cryptus***] ***ultimus*** (Cresson). Monob.

affabilis (Provancher). Que. to Va., west to Ohio. Transit. and U. Austr. Zones. Hosts: *Cephus pygmaeus* (L.); *C. tabidus* (F.).
Cryptus affabilis Provancher, 1877. Nat. Canad. 9: 13. ♀.

apicatus (Provancher). Maine, Que., N. Y., Sask. Canad. Zone.
Cryptus apicatus Provancher, 1874. Nat. Canad. 6: 178, 204. ♀.
Cryptus cinctus Provancher, 1875. Nat. Canad. 7: 175, 177. ♂.

bituminosus (Cushman). Mass., N. Y., and Ind. to Ga. and La. Hosts: *Sphenophorus pertinax* (Oliv.); *Diatraea* sp.; *Pyrausta ainsliei* Heinr.; *P. nubilalis* (Hbn.); *P. penitalis* (Grote).
Cryptoideus bituminosus Cushman, 1924. U. S. Natl. Mus. Proc. 64 (4): 6. ♀.

canadensis (Provancher). Transcont. in Transit. and Canad. Zones, west of 100° W. known only from Idaho, Wash., and B. C. Host: *Malacosoma americanum* (F.).

*?**Cryptus Belangeri*** Provancher, 1874. Nat. Canad. 6: 177, 201. ♀.

Nematopodius Canadensis Provancher, 1875. Nat. Canad. 7: 268. ♂.

exareolatus (Viereck), n. comb. Colo., N. Mex., Ariz., Utah, Calif., Wash. Hosts: *Malacosoma fragile* (Stretch); *Hemerocampa vetusta* (Bdvl.).

Spilocryptus exareolatus Viereck, 1903. Amer. Ent. Soc. Trans. 29: 80. ♂.

Cryptus (Gambrus) burkei Viereck, 1909. Ent. News 20: 291. ♂ ♀. N. syn.

extrematis (Cresson). Transcont. in Transit. and U. Austr. Zones. Hosts: *Platysamia cecropia* (L.); *P. columba* (Sm.); *P. gloveri* (Strk.). Parasites: *Gelis tenellus* (Say); *Mastrus smithii* (Pack.); *Coccygomimus aequalis* (Prov.); *Theronia atalantae* (Poda); *Cirrospilus inimicus* Gahan; *Dibrachys cavus* (Wlkr.); *Monodontomerus subobsoletus* Gahan.

Cryptus extrematis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 404. ♀.

Cryptus samiae Packard, 1865. Boston Soc. Nat. Hist. Proc. 9: 345. ♂ ♀.

Echthrus Provancheri Provancher, 1885. Canad. Ent. 17: 116. ♂ ♀.

Spilocryptus cecropiae Habermehl, 1919. Ztschr. f. Wiss. Insektenbiol. 14: 239. ♀.

Biology: Riley, 1872. Ins. Mo. Ann. Rpt. 4: 110–111.—Harrington, 1891. Ent. Soc. Ontario Ann. Rpt. 21: 67.—Smith, 1908. Jour. Econ. Ent. 1: 294–297.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 141.—Marsh, 1937. Ecology 18: 107–111.—Marsh, 1937. Ent. Soc. Amer. Ann. 30: 40–42.—Marsh, 1938. N. Y. Ent. Soc. Jour. 46: 27.

Morphology: Riederer, 1890. N. Y. Micros. Soc. Jour. 6: 99–101.

nuncius (Say). N. H. and Ont. south to Ala. and La. Transit., U. Austr., and L. Austr. Zones. Host: *Callosamia promethea* (Drury).

Cryptus nuncius Say, 1836. Boston Jour. Nat. Hist. 1: 237. ♀.

Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 141.

polyphemi Townes. Transcont. in U. Austr. and Transit. Zones. Host: *Telea polyphemus* (Cram.).

Cryptus sordidus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 67. ♀. Preocc.

Gambrus polyphemi Townes, 1945. Amer. Ent. Soc. Mem. 11: 809. N. name.

tunicularubra (Fyles). Que. (?Levis). Host: *Gnorimoschema gallaeasteriella* (Kell.).

Trychosis tunicula-rubra Fyles, 1896. Canad. Ent. 28: 148–150. ♂ ♀.

Biology: Fyles, 1896. Canad. Ent. 28: 148–150.

ultimus (Cresson). Transcont. in U. Austr. and L. Austr. Zones; Hawaii. Hosts: *Eurukuttarus confederatus* (Grote); *Coleophora* sp.; *Ancylis comptana* (Froel); *Grapholitha molesta* (Busck); *Polychrosis viteana* (Clem.); *Pachyzancla bipunctalis* (F.); *Phlyctaenia tertialis* (Guen.); *Pyrausta nubilalis* (Hbn.); *Malacosoma fragile* (Stretch).

Cryptus ultimus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 305. ♀.

Cryptus incertus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 306. ♀. Preocc.

Phygadeuon longicornis Provancher, 1886. Addit. Corr. Faune Ent. Canada. Hym., p. 52. ♀.

Hemiteles annulicornis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 403. ♀.

Agrothereutes (Allocryptus) hyslopi Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 333. ♀.

Spilocryptus exannulatus Cushman, 1919. U. S. Natl. Mus. Proc. 55: 529. ♂ ♀.

Hoplocryptus incertulus Cushman, 1925. Wash. Acad. Sci. Jour. 15: 390. N. name for *C. incertus*.

Biology: Fink, 1932. Jour. Agr. Res. 44: 555, 556.—Haden, 1935. Univ. Del. Agr. Expt. Sta. Bul. 194: 33–35.

Genus HOPLOCRYPTUS Thomson

Hoplocryptus Thomson, 1873. Opusc. Ent., fasc. 5, pp. 471, 508.

Type: ***Hoplocryptus binotatulus*** Thomson. Desig. by Viereck, 1914.

albicollaris (Cresson), n. comb. Tex.
Cryptus albicollaris Cresson, 1872. Amer. Ent. Soc. Trans. 4: 158. ♀.

gracilis (Provancher), n. comb. Atlantic to Cont. Divide in Transit. Zone. Host: *Ceratina dupla* Say.
Cryptus ornatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 63. ♀. Preocc. N. syn.
Cryptus scutellatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 69. ♀. Lapsus for *C. ornatus; C. scutellatus* is preocc.
Cryptus gracilis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 74. ♂.
Cryptus zoesmairi Dalla Torre, 1902. Cat. Hym., v. 3, p. 595. N. name for *C. scutellatus*.
Agrothereutes (Habrocryptus) graenicheri Viereck, 1904. Ent. News. 15: 333. ♀.
Biology: Graenicher, 1905. Ent. News. 16: 43–49.

imitator (Provancher). Transcont. in Transit. Zone.
Cryptus imitator Provancher, 1877. Nat. Canad. 9: 13. ♀.

notatus (Provancher), n. comb. Transcont. in Transit. and U. Austr. Zones. Hosts: *Allantus cinctus* (L.); *Ametastegia glabrata* (Fall.).
Cryptus notatus Provancher, 1874. Nat. Canad. 6: 177, 202. ♂.
Cryptus elongatus Provancher, 1882. Nat. Canad. 13: 362. ♂.
Oronotus albomaculatus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 205. ♂.
Caenocryptus newcomeri Cushman, 1917. U. S. Natl. Mus. Proc. 53: 463. ♂ ♀. N. syn.

Genus AGROTHEREUTES Foerster

Agrothereutes Foerster, 1850. Arch. f. Naturgesch. 16 (1): 71.
Type: (***Pezomachus abbreviator*** Gravenhorst) = [***Ichneumon***] ***abbreviator*** (Fabricius). Desig. by Viereck, 1914.
Spilocryptus Thomson, 1873. Opusc. Ent., fasc. 5, pp. 472, 501.
Type: (***Spilocryptus zygaenarum*** Thomson) = [***Cryptus***] ***solitarius*** (Tschek). Desig. by Viereck, 1914.

cimbcivorus (Cushman). Transcont. in Transit. Zone. Host: *Cimbex americana* Leach.
Spilocrpytus (!) ***cimbcivorus*** Cushman, 1925. U. S. Natl. Mus. Proc. 64 (4): 8. ♂ ♀.

iridescens (Cresson). Atlantic to Iowa and La.; also Colo., Transit., U. Austr., and L. Austr. Zones. Host: *Polychrosis viteana* (Clem.).
Cryptus iridescens Cresson, 1864. Ent. Soc. Phila. Proc. 3: 296. ♂.
Cryptus soror Cresson, 1864. Ent. Soc. Phila. Proc. 3: 296. ♂. Preocc.
Cryptus albonotatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 75. ♂.
Spilocryptus propodeum Cushman, 1920. U. S. Natl. Mus. Proc. 58: 253. ♂.

lophyri (Norton). Maine to Fla. and Ala. Also Mich. and Man. Hosts: *Diprion similis* (Htg.); *Neodiprion abietis* (Harr.); *N. lecontei* (Fitch).
Cryptus Lophyri Norton, 1869. Amer. Ent. Soc. Trans. 2: 326. ♂ ♀.

mandator n. comb., n. subsp. Maine, N. Y., N. J., Wash. *A. mandator mandator* (Linnaeus) 1758 is European. Hosts: *Trichiosoma spicatum* McG.; *T. taylori* Prov.

neodiprionis (Cushman). Oreg., Wash., Calif. Transit. Zone. Host: *Neodiprion tsugae* Midd.
Spilocryptus neodiprionis Cushman, 1939. Wash. Acad. Sci. Jour. 29: 393. ♂ ♀.
Biology: Furniss and Dowden, 1941. Jour. Econ. Ent. 34: 49, 51.

rufopectus Cushman. Alta.
Agrothereutes rufopectus Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13): 4. ♀.

similaris (Provancher). Maine, N. H., Vt., Mass., R. I., Conn., N. Y., Que. Hosts:

Diprion (*Gilpinia*) *hercyniae* (Htg.); *Heterarthrus nemoratus* (Fall.).
Phygadeuon similaris Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 57. ♂.
Aptesis major Davis, 1893. Ent. News 4: 32. ♀. N. syn.
Agrothereutes microalatus Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13): 4. ♀.
Agrothereutes slossonae Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13): 4. ♀.

Genus JOPPIDIUM Cresson

Joppidium Cresson, 1872. Amer. Ent. Soc. Trans. 4: 160.
Type: ***Joppidium rubriceps*** Cresson. Desig. by Viereck, 1914.
Joppoceras Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 39, 40.
Type: "***Cryptus***" (= ***Joppidium***) ***dubiosum*** Cresson. Orig. desig.
Opisoxestus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 40.
Type: ***Opisoxestus ferrugineus*** Ashmead. Orig. desig.

apicale Cresson. Atlantic to 100° W. U. Austr. and L. Austr. Zones. Overgrown fields.
Joppidium apicale Cresson, 1872. Amer. Ent. Soc. Trans. 4: 160. ♀.
Joppidium ruficeps Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 70. ♂ ♀.

rubriceps Cresson. Atlantic to 100° W. U. Austr. and L. Austr. Zones. Thickets and overgrown fields.
Joppidium rubriceps Cresson, 1872. Amer. Ent. Soc. Trans. 4: 160. ♂ ♀.

Genus ISCHNUS Gravenhorst

Ischnus Gravenhorst, 1829. Ichn. Europaea, v. 1, p. 638.
Type: (***Ichneumon porrectorius*** Fabricius) = [***Ichneumon***] ***inquisitorius*** (Mueller). Desig. by Westwood, 1840.
Habrocryptus Thomson, 1873. Opusc. Ent., fasc. 5, pp. 471, 498.
Type: (***Ichneumon porrectorius*** Fabricius) = [***Ichneumon***] ***inquisitorius*** (Mueller). Desig. by Viereck, 1914.
Erythrocryptus Cameron, 1905. Invertebrata Pacifica 1: 126.
Type: (***Erythrocryptus rufus*** Cameron) = ?[***Cryptus***] ***inquisitorius atriceps*** (Cresson). Monob.

inquisitorius atriceps (Cresson), n. status. B. C., Wash., Oreg., Calif., Mont. Canad. and Transit. Zones. *I. inquisitorius inquisitorius* (Mueller), is European. Hosts: *Archips argyrospila* (Wlkr.), *A. rosaceana* (Harr.).
Cryptus atriceps Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 361. ♀.
?***Erythrocryptus rufus*** Cameron, 1903. Invertebrata Pacifica 1: 126. ♀.
Gambrus venablesi Viereck, 1924. Canad. Ent. 56: 65. ♀.

inquisitorius atricollaris (Walsh), n. status. Atlantic to Cont. Divide in Canad. and Transit. Zones.
Cryptus atricollaris Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 72. ♂ ♀.
Cryptus varius Provancher, 1874. Nat. Canad. 6: 177, 200. ♂.
Ischus exilis Provancher, 1875. Nat. Canad. 7: 111. ♂.
Cryptus amblytelarius Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 70. ♂.
Spilocryptus neomexicana Viereck, 1903. Amer. Ent. Soc. Trans. 29: 80. ♂.

inquisitorius n. subsp. Alta.

oregonensis Cushman. Oreg., Idaho, Mont. Host: *Neodiprion tsugae* Midd.
Ischnus oregonensis Cushman, 1939. Wash. Acad. Sci. Jour. 29: 392. ♂ ♀.

pinguis (Provancher). Ont. (Ottawa).
Phaeogenes pinguis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 43. ♀.

3-annulatus fraterculus (Provancher). Atlantic to 100° W. Transit. and U. Austr. Zones. Hosts: *Sparganothis sulfureana* (Clem.); *Ancylis comptana* (Froel.); *Polychrosis viteana* (Clem.).
Phygadeuon fraterculus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 55. ♀.

Spilocryptus polychrosidis Cushman, 1917. U. S. Natl. Mus. Proc. 53: 461. ♂ ♀.

3-annulatus 3-annulatus (Provancher). Maine to Alta. Canad. Zone.
Phygadeuon 3-annulatus Provancher, 1882. Nat. Canad. 13: 335, 355. ♀.
?***Cryptus 3-annulatus*** Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 74. ♂.

Genus CHROMOCRYPTUS Ashmead

Chromocryptus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 41.
Type: (***Chromocryptus albopictus*** Ashmead) = [***Phygadeuon***] ***planosae*** (Fitch). Orig. desig.
Mesostenimorpha Viereck, 1913. U. S. Natl. Mus. Proc. 44: 566.
Type: (***Cryptus nebraskensis*** Ashmead) = [***Phygadeuon***] ***planosae*** (Fitch). Orig. desig.

planosae (Fitch). Atlantic to 100° W. U. Austr. Zone. Hosts: *Epicnaptera americana* (Harr.); *Tolype laricis* (Fitch); *T. velleda* (Stoll); *Halisidota tesselaris* (A. and S.).
Phygadeuon Planosae Fitch, 1856. N. Y. State Agr. Soc. Trans. 15: 501.
Cryptus nebraskensis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 412. ♀.
Chromocryptus albopictus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 41. ♀.
Agrothereutes (Itamoplex) cressoni Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 332. ♀.

Genus LISTROGNATHUS Tschek

Listrognathus Tschek, 1870. Zool.-Bot. Gesell. Wien Verh. 20: 153.
Type: ***Listrognathus cornutus*** Tschek. Monob.
Mesostenoideus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 45.
Type: ***Mesostenus albomaculatus*** Cresson. Orig. desig.
Revision: Cushman, 1929. U. S. Natl. Mus. Proc. 74, art. 16: 15–22.

albomaculatus (Cresson). Conn. and N. Y. to N. C., west to Ill. and Mo.
Mesostenus albomaculatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 313. ♀.
Mesostenus leucocoxus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 407. ♂.

albomaculatus var. **multimaculatus** Cushman. N. Y. and Pa. west to Minn. and Kans. Host: Tortricid on *Gleditsia*.
Listrognathus albomaculatus var. ***multimaculatus*** Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 18. ♀.

albomaculatus var. **nubilipennis** (Cresson). Ga.
Mesostenus nubilipennis Cresson, 1878. Canad. Ent. 10: 205. ♀.

albomaculatus var. **sagax** (Provancher). Atlantic to Cont. Divide. Transit. Zone.
Mesostenus sagax Provancher, 1879. Nat. Canad. 11: 112. ♀.

paludatus (Cresson). Mich., Ill., Minn., Man., Oreg.
Mesostenus paludatus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 162. ♂.
Listrognathus agnatus Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 2, 4, 21. ♀. N. syn.

rufitibialis Cushman, n. status. N. J., Md., S. C., Kans., Tex. U. Austr. and L. Austr. Zones.
Listrognathus albomaculatus var. ***rufitibialis*** Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 18. ♂ ♀.

victoriensis (Harrington). B. C., Calif.
Cryptus victoriensis Harrington, 1894. Canad. Ent. 26: 211. ♀.
Listrognathus multicolor Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 20. ♀.

Genus DIAPETIMORPHA Viereck

Diapetimorpha Viereck, 1913. U. S. Natl. Mus. Proc. 44: 564.
Type: (***Cryptus armatus*** Ashmead) = [***Mesostenus***] ***introita*** (Cresson). Orig. desig.
Revision: Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 29–37.

acadia Cushman. Md., S. C., Ga., La., Tex.; Mexico.
Diapetimorpha acadia Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 35. ♂. ♀

alabama Cushman. Atlantic to 100° W. U. Austr. and L. Austr. Zones.
Diapetimorpha alabama Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 34. ♂ ♀.

confederata Cushman. Md., S. C., Ga., Fla., Tex. Mostly L. Austr. Zone. Host: *Pilocrocis tripunctata* (F.).
Diapetimorpha confederata Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 34. ♀.

introita (Cresson). La., Tex., Mexico.
Mesostenus introitus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 162. ♂.
Mesostenus dejectus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 163. ♀.
Cryptus armatus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 411. ♂. Preocc.
Cryptus ashmeadii Dalla Torre, 1902. Cat. Hym., v. 3, p. 562. N. name for *C. armatus*.

rufigaster Cushman. Md., Va., S.C., Ga., Fla.
Diapetimorpha rufigaster Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 33. ♀.

Genus MALLOCHIA Viereck

Mallochia Viereck, 1912. U. S. Natl. Mus. Proc. 43: 591.
Type: *Mallochia agenioides* Viereck. Orig. desig.
Revision: Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 13–15.

agenioides Viereck. Atlantic to 100° W. in U. Austr. & L. Austr. Zones; Mexico.
Mallochia agenioides Viereck, 1912. U. S. Natl. Mus. Proc. 43: 591. ♀.

strigosa (Cresson). Tex. (Bosque Co.).
Mesoleptus? strigosus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 167. ♂.

Genus POLISTIPHAGA Cushman

Polistiphaga Cushman, 1925. Wash. Acad. Sci. Jour. 15: 391.
Type: *Mesostenus arvalis* Cresson. Orig. desig.
Revision: Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 55–57.

fulva (Cresson). Transcont. in Transit., U. Austr., and L. Austr. Zones. Mexico. Hosts: *Polistes annularis* (L.); *P. fuscatus* (F.); *P. fuscatus pallipes* Lep.; *P. rubiginosus* (Lep.); *P. fuscatus variatus* (Cress.). Parasite: *Dibrachys cavus* (Wlkr.).
Mesostenus? fulvus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 316. ♂.
Mesostenus arvalis Cresson, 1872. Amer. Ent. Soc. Trans. 14: 163. ♀.
Biology: Dow, 1932. Psyche 39: 16.—Gaul, 1940. Canad. Ent. 72: 240–242.—Rau, 1941. Ent. Soc. Amer. Ann. 34: 364.

stupida (Cresson). N. C., S. C., Fla., Tex., West Indies, Panama, Venezuela. L. Austr. and Tropical Zones. Hosts: *Polistes canadensis* (L.); *P. exclamans* Vier.; *P. fuscatus* (F.).
Mesostenus stupidus Cresson, 1873. Acad. Nat. Sci. Phila. Proc. p. 159. ♀.
Polistiphaga zonata Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 4, 56. ♀.

Genus NASUTOCRYPTUS Pratt

Nasutocryptus Pratt, 1945. Amer. Midland Nat. 34: 560.
Type: *Nasutocryptus nasutus* Pratt. Orig. desig.

nasutus Pratt. N. Mex. (Alamogordo).
Nasutocryptus nasutus Pratt, 1945. Amer. Midland Nat. 34: 561. ♀.

Genus LYMEON Foerster

Lymeon Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 176.
Type: (*Lymeon annulicornis* Ashmead) = [*Cryptus*] *orbum* (Say). Monob.
Revision: Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 29–32.

cinctiventris (Cushman). Gulf and Atlantic States as far north as Va. L. Austr. Zone.
Mesostenus laticinctus Cresson, 1878. Canad. Ent. 10: 208. ♀. Preocc.
Mesostenus cressonii Dalla Torre, 1901. Cat. Hym., v. 3, p. 539. N. name. Preocc.
Diapetimorpha cinctiventris Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 32. N. name.

orbum (Say). Atlantic to 100° W. in U. Austr. and L. Austr. Zones. Hosts: *Coleophora* sp.; *Homaledra sabalella* (Chamb.); *Grapholitha molesta* (Busck); *Lineodes vulnifica* (Dyar); eggs of *Zelotes* sp.
Cryptus orbus Say, 1836. Boston Jour. Nat. Hist. 1: 231. ♀.
Mesostenus diligens Cresson, 1878. Canad. Ent. 10: 207. ♀.
Lymeon annulicornis Ashmead, 1894. U. S. Dept. Agr. Insect Life. 7: 243. ♀.

Genus ACERASTES Cushman

Acerastes Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 53.
Type: *Mesostenus pertinax* Cresson. Orig. desig.

pertinax (Cresson). Md., N. C., Fla., Tex., Mexico, Honduras, Panama, Venezuela, Paraguay.
Mesostenus pertinax Cresson, 1872. Amer. Ent. Soc. Trans. 4: 163. ♀.
Taxonomy: Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 4, 5, 54.

Genus POLYCYRTIDEA Viereck

Polycyrtidea Viereck, 1913. U. S. Natl. Mus. Proc. 46: 382.
Type: *Polycyrtidea gracilis* Viereck. Orig. desig.

flavopicta (Ashmead). Tex. (Brownsville); Costa Rica, Grenada, Panama, Venezuela, Brazil.
Agrypon flavopictus Ashmead, 1900. Ent. Soc. London Trans., p. 271. ♂.
Polycyrtidea limitis Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 2, 5, 52. ♀. N. syn.

Genus ECHTHRUS Gravenhorst

Echthrus Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 861.
Type: *Ichneumon reluctator* Linnaeus. Desig. by Westwood, 1840.
Sphaetes Bremi, 1849. Stettin. Ent. Ztg. 10: 95.
Type: (*Sphaetes crassicrus* Bremi) = [*Ichneumon*] *reluctator* (Linnaeus). Monob.

This and the following four genera are parasitic on coleopterous and lepidopterous borers.

abdominalis Cresson. Transcont., mostly in Canad. Zone.
Echthrus abdominalis Cresson, 1868. Canad. Ent. 1: 37. ♀.
Mesoschorus Saint-Cyri Provancher, 1874. Nat. Canad. 6: 299. ♀.

adillae Davis. Wash.
Echthrus adillae Davis, 1895. Amer. Ent. Soc. Trans. 22: 32. ♂.

niger Cresson. Que., Ont., Vt., N. Y., Pa., D. C., Va. Hosts: ?*Anoplodera proxima* (Say); *Saperda discoidea* F.
Echthrus niger Cresson, 1868. Canad. Ent. 1: 37. ♀.
Biology: Harrington, 1893. Canad. Ent. 25: 32.

rufopedibus Harrington. Que. (Montreal).
Echthrus rufopedibus Harrington, 1893. Canad. Ent. 25: 31. ♀.

vancouverensis (Bradley). B. C. (Vancouver).
Dyseidopus vancouverensis Bradley, 1902. Ent. News 13: 307. ♂.

Genus XYLOPHRURUS Foerster

Xylophrurus Foerster, 1868. Naturh. Ver. Preuss. Rheinlande Verh. 25: 169.
Type: *Echthrus lancifer* Gravenhorst. Monob.
Nyxeophilus Foerster, 1868. Naturh. Ver. Preuss. Rheinlande Verh. 25: 187.

Type: (***Nyxeophilus bimaculatus*** Thompson) = [***Cryptus***] ***angustus*** (Dalman). Desig. by Viereck, 1914.

Macrocryptus Thomson, 1873. Opusc. Ent., fasc. 5, pp. 470, 486.
Type: ***Echthrus lancifer*** Gravenhorst. Monob.

Cryptoideus of authors, not of the genotype.

Xylophruridea Viereck, 1912. U. S. Natl. Mus. Proc. 42: 646.
Type: ***Xylophruridea agrili*** Viereck. Orig. desig.

Revision: Cushman, 1919. U. S. Natl. Mus. Proc. 55: 536–540.

agrili (Viereck). Ont., N. Y., Conn., W. Va., Kans. Hosts: *Agrilus champlaini* Frost; *A. vittaticollis* Randall.

Xylophruridea agrili Viereck, 1912. U. S. Natl. Mus. Proc. 42: 646. ♀.

Biology: Brooks, 1914. Jour. Agr. Res. 3: 184.—Brooks, 1923. U. S. Dept. Agr., Bur. Ent. Monthly Letter 108: 3.

atroruber Townes. Calif. (Santa Cruz Mts.).

Cryptoideus purpuripennis Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 42. ♀. Misdet.

Cryptoideus purpuripennis Cushman, 1919. U. S. Natl. Mus. Proc. 55: 539. ♀. Misdet.

Xylophrurus atroruber Townes, 1944. Amer. Ent. Soc. Mem. 11: 290.

bicolor (Cushman). Alta., Colo.

Cryptoideus bicolor Cushman, 1919. U. S. Natl. Mus. Proc. 55: 537. ♀.

fasciatus fasciatus (Ashmead). Pa., Md., Tex. Host: *Agrilus angelicus* Horn.

Brachycentrus fasciatus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 413. ♀.

Cryptoideus rufus Cushman, 1919. U. S. Natl. Mus. Proc. 55: 538. ♀. N. syn.

fasciatus n. subsp. Colo., Calif.

luctuosus (Provancher). Que., N. H., Conn., N. Y. Host: *Saperda obliqua* Say.

Mesochorus luctuosus Provancher, 1874. Nat. Canad. 6: 299. ♀.

Cryptoideus anthracinus Cushman, 1924. U. S. Natl. Mus. Proc. 64 (4): 7. ♀.

nubilipennis (Cresson). Colo.

Cryptus nubilipennis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 291. ♀.

sitkensis (Ashmead). Alaska (Sitka).

Cryptoideus sitkensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 193. ♀.

Genus AGONOCRYPTUS Cushman

Agonocryptus Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 6.
Type: ***Mesostenus discoidaloides*** Viereck. Orig. desig.

discoidaloides (Viereck). Atlantic to 100° W. Tropical, L. Austr., and U. Austr. Zones. Hosts: *Eupogonius vestitus* (Say); *Pseudibidion unicolor* (Rand.); *Podosesia syringae* (Harr.).

Mesostenus discoidaloides Viereck, 1905. Kans. Acad. Sci. Trans. 19: 319. ♀.

Taxonomy: Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 3, 4, 5, 7.

Genus CRYPTOHELCOSTIZUS Cushman

Cryptohelcostizus Cushman, 1919. U. S. Natl. Mus. Proc. 55: 534.
Type: (***Cryptohelcostizus rufigaster*** Cushman) = [***Cryptus***] ***alamedensis*** (Ashmead). Orig. desig.

Revision: Cushman, 1940. U. S. Natl. Mus. Proc. 88: 357–359.

alamedensis (Ashmead). Calif., Oreg. Hosts: *Agrilus angelicus* Horn; *Chrysobothris mali* Horn; *Myrmex arizonicus* (Schaef.).

Cryptus alamedensis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 409. ♀.

Cryptohelcostizus rufigaster Cushman, 1919. U. S. Natl. Mus. Proc. 55: 534. ♂ ♀.

chrysobothridis Cushman. Okla. (Stillwater). Host: *Chrysobothris* sp. in *Malus pumila.*

Cryptohelcostizus chrysobothridis Cushman, 1940. U. S. Natl. Mus. Proc. 88: 358. ♂ ♀.

dichrous Viereck. N. J., Va., N. C., Ga., Tex. L. Austr. Zone.
Cryptohelcostizus dichrous Viereck, 1921. Psyche 28: 73. ♂ ♀.

ornatus Cushman. Ariz., Calif. Sonor. desert. Host: *Chrysobothris deserta* Horn.
Cryptohelcostizus ornatus Cushman, 1940. U. S. Natl. Mus. Proc. 88: 359. ♀.

Genus HELCOSTIZUS Foerster

Brachycentrus Taschenberg, 1865. Ztschr. Gesam. Naturw. Halle 25: 106. Preocc.
Type: (***Cryptus pimplarius*** Taschenberg) = [***Cryptus***] ***brachycentrus*** (Gravenhorst). Monob.
Helcostizus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 186.
Type: ***Cryptus brachycentrus*** Gravenhorst. Desig. by Viereck, 1914.
Cyrtocryptus Marshall, 1872. Cat. Brit. Hym., v. 3, p. 41.
Type: ***Cryptus brachycentrus*** Gravenhorst. Monob.
Mesocryptus Thompson, 1873. Opusc. Ent., fasc. 5, p. 519.
Type: ***Cryptus brachycentrus*** Gravenhorst. Monob.
Heterocryptus Woldstedt, 1873. Bidr. Fin. Nat. 21: 73.
Type: ***Cryptus brachycentrus*** Gravenhorst. Desig. by Viereck, 1914.
Asternaulax Viereck, 1912. U. S. Natl. Mus. Proc. 42: 632.
Type: (***Asternaulax fiskei*** Viereck) = [***Mesochorus***] ***canadensis*** (Provancher). Orig. desig.
Chenbergus Navas, 1930. Soc. Ent. España Bol. 13: 43. N. name for *Brachycentrus*.
Revision: Cushman, 1919. U. S. Natl. Mus. Proc. 55: 531–535.

annulicornis (Walsh). ?Ill.
Echthrus annulicornis Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 159. ♀.
Taxonomy: Cushman, 1924. U. S. Natl. Mus. Proc. 64 (4): 8.

bicarinatus Cushman. N. Y., Va.
Helcostizus bicarinatus Cushman, 1919. U. S. Natl. Mus. Proc. 55: 532. ♀.

canadensis (Provancher). Que., N. H., Conn., N. Y., Md., N. C.
Mesochorus Canadensis Provancher, 1874. Nat. Canad. 6: 299. ♀.
Asternaulax fiskei Viereck, 1912. U. S. Natl. Mus. Proc. 42: 632. ♀.

rufiscutum Cushman. Calif. (Monterey). Host: *Phloeosinus* sp.
Helcostizus rufiscutum Cushman, 1919. U. S. Natl. Mus. Proc. 55: 533. ♀.

yukonensis (Ashmead). Alta., Wash., Alaska.
Pimpla yukonensis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 445. ♀.

Genus ACRORICNUS Ratzeburg

Acroricnus Ratzeburg, 1853. Ichn. d. Forstins., v. 3, p. 92.
Type: (***Acroricnus schaumii*** Ratzeburg) = [***Ichneumon***] ***stylator*** (Thunberg). Monob.
Xenocodon Foerster, 1855. Naturh. Ver. Rheinlande Verh. 12: 237.
Type: (***Xenocodon ruficornis*** Foerster) = [***Ichneumon***] ***seductor*** (Scopoli). Monob.
Macrobatus Holmgren, 1856. Svenska Vetensk. Akad. Handl. 75: 50.
Type: (***Cryptus macrobates*** Gravenhorst) = [***Ichneumon***] ***stylator*** (Thunberg). Monob.
Linoceras Taschenberg, 1865. Ztschr. Gesam. Naturw. Halle 25: 8, 105.
Type: (***Cryptus macrobates*** Gravenhorst) = [***Ichneumon***] ***stylator*** (Thunberg). Desig. by Viereck, 1914.
Leptobatides Buysson, 1896. *In* André, Spec. Hym. Eur. Alg., v. 6, p. 678, pl. 3.
Type: ***Leptobatides abeillei*** Buysson. Monob.
Agathobanchus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 97.
Type: ***Banchus aequatus*** Say. Orig. desig.
Revision: Mitchell, in press.

Members of this and the following genus are parasitic in the nests of vespids, sphecids, and psammocharids that construct mud nests.

aequatus aequatus (Say). Atlantic west to Wis. Canad. and Transit. Zones.
Banchus aequatus Say, 1836. Boston Jour. Nat. Hist. 1: 247. ♂.
Atractodes Cloutieri Provancher, 1874. Nat. Canad. 6: 150. ♂ ♀.
Taxonomy: Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 158.

aequatus junceus (Cresson). Atlantic to 100° W. U. Austr. and Transit. Zones.
Hosts: *Ancistrocerus birenimaculatus* (Sauss.); *A. tigris* (Sauss.); *Sceliphron caementarium* (Drury).
Cryptus junceus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 295. ♀.
Biology: Walsh and Riley, 1869. Amer. Ent. 1: 137.

edwardsii (Cresson). Calif.
Linoceras Edwardsii Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 365. ♂.

excelsus (Cresson). Colo.
Cryptus excelsus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 293. ♀.

Genus MESSATOPORUS Cushman

Messatoporus Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 8.
Type: (*Mesostenus discoidalis* Cresson) = [*Mesostenus*] *ferrum-equinum* (Walsh and Riley). Orig. desig.
Revision: Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 8–13.

compressicornis Cushman. Conn. to Fla. and Ala. U. Austr. and L. Austr. Zones.
Messatoporus compressicornis Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 12. ♂ ♀.
Messatoporus major Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 13. ♀.

ferrum-equinum (Walsh and Riley). Atlantic to 100° W. Transit., U. Austr., and L. Austr. Zones. Hosts: *Auplopus mellipes* (Say); *Ceropales fraterna* Sm.; *Phanagenia bombycina* (Cress.).
Mesostenus ferrum-equinum Walsh and Riley, 1869. Amer. Ent. 1: 133.
Mesostenus discoidalis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 162. ♀. N. syn.

rufiventris Cushman. Atlantic to Cont. Divide. U. Austr. and Transit. Zones.
Messatoporus rufiventris Cushman, 1929. U. S. Natl. Mus. Proc. 74 (16): 11. ♀.

Subfamily ICHNEUMONINAE (=JOPPINAE, =PHAEOGENINAE)

Members of this subfamily are internal parasites of Lepidoptera. They oviposit into either the host larva or pupa, but always emerge from the pupa. There is a marked sexual dimorphism and dichromatism in most species.

Tribe ALOMYINI (=PHAEOGENINI)

Revision: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 202–206.

Genus PHAEOGENES Wesmael

Phaeogenes Wesmael, 1844. Acad. Sci. Bruxelles Nouv. Mém. 18: 166, 180.
Type: (*Phaeogenes primarius* Wesmael) = [*Ichneumon*] *semivulpinus* (Gravenhorst). Desig. by Ashmead, 1900.
Dirophanes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 183.
Type: (*Phygadeuon* (*Dirophanes*) *plesius* Viereck) = [*Ichneumon*] *hariolus* (Cresson). Included by Viereck, 1912.
Revision: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 202–206.

acaudus (Provancher). Que.
Phygadeuon acaudus Provancher, 1882. Nat. Canad. 13: 334, 358. ♀.

arcticus Cushman. Alaska, B. C., Wash., Calif., N. C. Transit. Zone. Host: *Peronea* sp.
Phaeogenes arcticus Cushman, 1920. U. S. Natl. Mus. Proc. 58: 251. ♂ ♀.

ater Cresson. Transcont. in Transit. and U. Austr. Zones. Hosts: *Podosesia syringae*

(Harr.); *Ramosia tipuliformis* (Clerck); *Sanninoidea exitiosa* (Say); *Thamnosphecia pyri* (Harr.); *T. scitula* (Harr.).
Phaeogenes ater Cresson, 1877. Amer. Ent. Soc. Trans. 6: 202. ♀.
Amblyteles macrocephalus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 34. ♂.

cacoeciae Viereck. Transcont. in Canad. Zone. Host: *Archips argyrospila* (Wlkr.).
Phaeogenes cacoeciae Viereck, 1924. Canad. Ent. 56: 66. ♂ ♀.

epinotiae Cushman. Maine. Hosts: *Recurvaria piceaella* Kearf.; *Epinotia nanana* (Treit.).
Phaeogenes epinotiae Cushman, 1935. Wash. Acad. Sci. Jour. 25: 547. ♂ ♀.

gaspesianus Provancher. Transcont. in Canad. and Transit. Zones. Host: *Peronea variana* (Fern.).
Phaeogenes Gaspesianus Provancher, 1882. Nat. Canad. 13: 331. ♀.
Phaeogenes pimploides Bradley, 1918. Brooklyn Ent. Soc. Bul. 13: 98. ♀.
Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 246, 251.

hariolus (Cresson). Transcont. in Transit. and Canad. Zones. Hosts: *Choristoneura fumiferana* (Clem.), *Acleris variana* (Fern.).
Ichneumon hariolus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 305. ♀.
Phygadeuon (Dirophanes) plesius Viereck, 1912. U. S. Natl. Mus. Proc. 42: 148. ♀.
Morphology: Peck, 1937. Canad. Jour Res. Sect D, Zool. Sci. 15: 246, 251.

hebe (Cresson). Atlantic to Ill. in Transit. Zone.
Ichneumon hebe Cresson, 1867. Amer. Ent. Soc. Trans. 1: 306. ♂ ♀.

hebrus (Cresson). Transcont. in Transit. and U. Austr. Zones.
Ichneumon hebrus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 306. ♂ ♀.
Phygadeuon insignis Provancher, 1875. Nat. Canad. 7: 179, 182. ♀.
Ichneumon ustus Provancher, 1882. Nat. Canad. 13: 305, 324. ♀.

laevigatus (Cresson). Colo.
Ichneumon laevigatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 176. ♀.

mellinus (Provancher). Que., Mass., N. Y., Pa.
Phygadeuon mellinus Provancher, 1875. Nat. Canad. 7: 315. ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 39.

orbus Provancher. Que. (Cap Rouge).
Phaeogenes orbus Provancher, 1882. Nat. Canad. 13: 332. ♂.
Taxonomy: Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 41. ♂ ♀.

osrufus (Davis). Ill.
Eurylabus osrufus Davis, 1898. Amer. Ent. Soc. Trans. 24: 353. ♀.
Eurylabus varufus (!) Mason, 1905. Ent. News 16: 148. Lapsus for *osrufus*.

parvus (Provancher). Que., N. Y., R. I.
Ischnus parvus Provancher, 1875. Nat. Canad. 7: 112. ♂.
Phaeogenes Farladeaui Provancher, 1882. Nat. Canad. 13: 331. ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 121. ♂.

phycidis Ashmead. Que., N. H., N. Y. Hosts: *Acrobasis betulella* Hulst; *A. rubrifasciella* Pack.
Phaeogenes phycidis Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 169. ♀.
Biology: Daviault, 1935. Nat. Canad. 62: 318, 319.

pyriformis (Provancher). Que., N. H., R. I., N. Y. Transit. Zone.
Ischnus pyriformis Provancher, 1875. Nat. Canad. 7: 109. ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 40. ♂ ♀.

sitkensis (Ashmead). Alaska (Sitka).
Eriplatys sitkensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 162. ♀.

soriculatus (Provancher). Que., N. Y., N. C. Canad. and Transit. Zones.
Cryptus soriculatus Provancher, 1881. Nat. Canad. 13: 362. ♂.

spinicoxus (Viereck). N. Mex. (Magdalena Mts.).
Phygadeuon (Bathymetis) spinicoxus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 289. ♀.

vincibilis (Cresson). Atlantic to Rocky Mts. in Transit. Zone.
Ichneumon vincibilis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 312. ♀.

Phaeogenes decoloratus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 203. ♀.
Phaeogenes discus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 203. ♂.

walshiae australis (Cushman). Ga. (Albany). Host: *Laspeyresia caryana* (Fitch).
Proscus walshiae var. *australis* Cushman, 1933. U. S. Natl. Mus. Proc. 82: 5. ♂ ♀.

walshiae walshiae Ashmead. N. J., Del., Md., Va., Pa., Ohio, Ill. Hosts: *Walshia amorphella* Clem.; *Ancylis comptana* (Froel.); *Epiblema strenuana* (Wlkr.); *Grapholitha molesta* (Busck).
Phaeogenes walshiae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 205. ♂ ♀.
Phaeogenes (Centeterus) ineptifrons Gahan, 1919. U. S. Natl. Mus. Proc. 55: 113. ♂ ♀.
Biology: Haden, 1935. Univ. Del. Agr. Expt. Sta. Bul. 194: 20–35.

Genus DIADROMUS Wesmael

Diadromus Wesmael, 1844. Acad. Sci. Bruxelles Nouv. Mém. 18: 166, 207, 221.
Type: *Ichneumon troglodytes* Gravenhorst. Desig. by Ashmead, 1900.

erythrostomus (Cameron). Calif. (mts. near Claremont).
Stiboscopus erythrostomus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 244. ♀.

helvolus (Cresson). Atlantic to Sask. and Iowa in Transit. and U. Austr. Zones.
Ichneumon helvolus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 312. ♀.
Ichneumon Magdalensis Provancher, 1890. Nat. Canad. 19: 248. ♂.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 205.

marginatus (Provancher). Ont., N. Y., N. J., Md., Alta.
Phygadeuon marginatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 56. ♂.

plutellae (Ashmead). Transcont. in Transit. Zone. Erroneously synonymized with the European *D. subtilicornis*. Host: *Plutella maculipennis* (Curt.).
Herpestomus plutellae Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 396. ♂.

Genus RHEXIDERMUS Foerster

Ischnus of certain authors, not of the genotype.
Rhexidermus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 192.
Type: *Rhexidermus japonicus* Ashmead. Included by Ashmead, 1906.
Posocentrus Provancher, 1875. Nat. Canad. 7: 272.
Type: *Posocentrus huardi* Provancher. Monob.
Ischnopsidea Viereck, 1914. U. S. Natl. Mus. Bul. 83: 77.
Type: *Ichneumon thoracicus* Gravenhorst. Orig. desig.
Aethiopischnus Heinrich, 1938. Acad. Malagache Mém. 25: 127. N. syn.
Type: *Aethiopischnus olsoufieffi* Heinrich. Orig. desig.

coloradensis (Cushman). Colo.
Ischnopsidea coloradensis Cushman, 1920. U. S. Natl. Mus. Proc. 58: 253. ♀.

huardi (Provancher). Transcont. in Huds., Canad., and Transit. Zones.
Posocentrus Huardi Provancher, 1875. Nat. Canad. 7: 273. ♀.
Posocentrus Huarti (!) Provancher, 1879. Nat. Canad. 11: 251. *Lapsus.*
Phaeogenes recticaudus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 42. ♀.
Ischnopsidea alberta Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13): 1. ♀.

Genus CENTETERUS Wesmael

Centeterus Wesmael, 1844. Acad. Sci. Bruxelles Nouv. Mém. 18: 166, 176.
Type: *Centeterus major* Wesmael. Desig. by Ashmead, 1900.

euryptychiae (Ashmead). D. C. Host: *Epiblema scudderiana* (Clem.).
Colpognathus euryptychiae Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 395. ♀.

linearis (Provancher). Atlantic to Cont. Divide in Transit. and U. Austr. Zones.
Cryptus linearis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 72. ♂.
Phaeogenes beulahensis Viereck, 1903. Amer. Ent. Soc. Trans. 29: 80. ♂.

quadriceps (Cresson). Que. and Ont. south to Va.
Ichneumon quadriceps Cresson, 1867. Amer. Ent. Soc. Trans. 1: 312. ♂ ♀.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 204.

tuberculifrons (Provancher). Que., Ont., Maine, N. Y., S. C. Transit. and U. Austr. Zones.
Phygadeuon tuberculifrons Provancher, 1874. Nat. Canad. 6: 284. ♀.
Phygadeuon fasciatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 55. ♀.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 205.

Genus COLPOGNATHUS Wesmael

Colpognathus Wesmael, 1844. Acad. Sci. Bruxelles Nouv. Mém. 18: 165, 174.
Type: *Ichneumon celerator* Gravenhorst. Monob.

helvus (Cresson). Transcont. in Transit. and U. Austr. Zones. Host: *Platyptilia carduidactyla* (Riley).
Ichneumon fungor Cresson, 1867. Amer. Ent. Soc. Trans. 1: 306. ♂. N. syn.
Ichneumon helvus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 312. ♀.
Cryptus certus Provancher, 1874. Nat. Canad. 6: 177, 200. ♂.
Phygadeuon hilaris Provancher, 1874. Nat. Canad. 6: 284. ♀.
Cryptus ruficornis Provancher, 1879. Nat. Canad. 11: 139. ♂.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 204, 206.

Genus DICAELOTUS Wesmael

Dicaelotus Wesmael, 1844. Acad. Sci. Bruxelles Nouv. Mém. 18: 165, 175.
Type: *Ichneumon pumilus* Gravenhorst. Desig. by Ashmead, 1900.
Cinxaelotus Holmgren, 1889. Ichn. Suecica, v. 3, p. 367.
Type: *Cinxaelotus erythrogaster* Holmgren. Monob.
Leptodemas Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 182.
Type: *Leptodemas cariniscutis* Cameron. Included by Cameron, 1906.
Chauviniella Heinrich, 1938. Acad. Malagache Mém. 25: 125. N. syn.
Type: *Chauviniella nitida* Heinrich. Orig. desig.

attenuatus (Provancher). Atlantic to Cont. Divide in Transit. and U. Austr. Zones.
Phygadeuon attenuatus Provancher, 1882. Nat. Canad. 13: 334, 359. ♀.
Phaeogenes sectus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 358. ♂. N. syn.
Herpestomus flavicoxae Harrington, 1894. Canad. Ent. 26: 210. ♂.
Phygadeuon (Plesignathus) taeniatus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 335, 336. ♂.

clypeatus (Cresson). Maine, R. I., N. Y., N. J., N. C., Ohio, Ill. Transit. and U. Austr. Zones.
Stilpnus clypeatus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 95. ♂.

gelechiae (Ashmead). N. H., N. Y. Host: *Gnorimoschema gallaesolidaginis* (Riley).
Phaeogenes gelechiae Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 392. ♂ ♀.

missouriensis (Ashmead). D. C., Mo.
Phaeogenes missouriensis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 393. ♀.
Phaeogenes hemiteloides Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 393. ♀.

pacificus (Ashmead). Md., W. Va., Alta., Calif.
Ischyrocnemis pacificus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 199. ♀ (♂ misdet.).

ruficornis (Ashmead). Mo. (St. Louis).
Phaeogenes ruficornis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 394. ♀.

testaceicornis (Cameron). Nev. (Ormsby Co.).
Bathymetis testaceicornis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 245. ♀.
Taxonomy: Morley, 1914. Ann. Mag. Nat. Hist. (8) 14: 409.

Genus STENODONTUS Berthomieu

Gnathoxys Wesmael, 1844. Acad. Sci. Bruxelles Nouv. Mém. 18: 165, 168. Preocc.
Type: *Ichneumon marginellus* Gravenhorst. Monob.
Stenodontus Berthoumieu, 1896. Soc. Ent. France Ann. 65: 346.
Type: *Ichneumon marginellus* Gravenhorst. Desig. by Ashmead, 1900.

An undescribed Nearctic species occurs in the Transitional Zone of New Hampshire, New York, Virginia and North Carolina, and a second species in the Transitional Zone of Washington.

Tribe PRISTICERATINI (=PLATYLABINI)

Genus APAELETICUS Wesmael

Apaeleticus Wesmael, 1844. Acad. Sci. Bruxelles Nouv. Mém. 18: 165, 166.
Type: *Apaeleticus bellicosus* Wesmael. Desig. by Ashmead, 1900.

americanus Cushman. Maine, Md., Alta.
Apaeleticus americanus Cushman, 1926. U. S. Natl. Mus. Proc. 67 (23): 4. ♀.

Genus CYCLOLABUS Heinrich

Cyclolabus Heinrich, 1936. Deut. Ent. Ztschr., p. 198.
Type: *Platylabus nigricollis* Wesmael. Orig. desig.

pactor (Wesmael). Wash. and Calif. in Transit. Zone; Europe.
Platylabus? *pactor* Wesmael, 1844. Acad. Sci. Bruxelles Nouv. Mém. 18: 164. ♀.

Genus PLATYLABUS Wesmael

Platylabus Wesmael, 1844. Acad. Sci. Bruxelles Nouv. Mém. 18: 150, 153.
Type: *Platylabus rufus* Wesmael. Desig. by Ashmead, 1900.
?*Stenolabus* Heinrich, 1936. Deut. Ent. Ztschr., p. 197. Preocc.
Type: *Platylabus latiscapus* Thomson. Orig. desig.
Revisions: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 199–201.—Bradley, 1903. Canad. Ent. 35: 275–283.

californicus Cresson. Calif.
Platylabus californicus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 201. ♀.

canadensis Cresson. Transcont. in Canad. Zone and in parts of Transit. Zone.
Platylabus canadensis Cresson, 1877. Amer. Ent. Soc. Trans. 6: 200. ♀.

clarus (Cresson). Transcont. in Canad., Transit., and U. Austr. Zones.
Ichneumon clarus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 297. ♀.
Platylabus magnificus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 36. ♀.
Platylabus metallicus Bradley, 1903. Canad. Ent. 35: 280. ♂ ♀.

consors Cresson. Calif.
Platylabus consors Cresson, 1877. Amer. Ent. Soc. Trans. 6: 200. ♂.

gracilicornis (Viereck). N. Mex. (Dailey Canyon).
Cratichneumon gracilicornis Viereck, 1903. Amer. Ent. Soc. Trans. 29: 78. ♀.

incabus Davis. Idaho (Moscow).
Platylabus incabus Davis, 1898. Amer. Ent. Soc. Trans. 24: 352. ♀.

lineolatus (Provancher). Maine, Que., Mich.
Ichneumon lineolatus Provancher, 1875. Nat. Canad. 7: 24, 82. ♀.
Phygadeuon rufipes Provancher, 1875. Nat. Canad. 7: 181, 183. ♀.
Platylabus pulcher Cushman, 1922. U. S. Natl. Mus. Proc. 60 (21): 1. ♀.

montanus Cresson. N. H., Wash. Huds. and Canad. Zones.
Platylabus montanus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 200. ♀.

ornatus (Provancher). Que., Wash., Calif.
Phygadeuon ornatus Provancher, 1875. Nat. Canad. 7: 181, 183. ♀.

pedatorius (Fabricius). Wash. (Mt. Rainier at timber line); Europe.
Ichneumon pedatorius Fabricius, 1793. Ent. System. 2: 133. ♂.

rubricapensis Provancher. Que., N. Y., N. C.
Platylabus Rubri Capensis Provancher, 1882. Nat. Canad. 13: 329. ♀.
Platylabus Rubricapensis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 35. Binomial form.

scutellatus (Provancher). Transcont. in Transit. Zone.
Ischnus scutellatus Provancher, 1875. Nat. Canad. 7: 111. ♂.
Eurylabus agilis Cresson, 1877. Amer. Ent. Soc. Trans. 6: 201. ♂ ♀.

signatus (Provancher). Que., Alta.
Phygadeuon signatus Provancher, 1874. Nat. Canad. 6: 282. ♀.

tibialis Ashmead. N. Mex. (Las Vegas Range at 11,000 ft.).
Platylabus tibialis Ashmead, 1901. Psyche 9: 147. ♀.

vafer (Cresson). N. H. (White Mts.).
Ichneumon vafer Cresson, 1877. Amer. Ent. Soc. Trans. 6: 178. ♀.

Genus PRISTICEROS Gravenhorst

Pristiceros Gravenhorst, 1829. Ichn. Europaea, v. 1, p. 635.
Type: *Pristiceros serrarius* Gravenhorst. Monob.

bakeri (Davis). Que., N. H., Mich., Wash.
Platylabus bakeri Davis, 1898. Amer. Ent. Soc. Trans. 24: 352. ♂.

lascivus (Cresson). N. Y., Md., W. Va., Ill.
Ichneumon lascivus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 309. "♂" = ♀.

Genus THAUMATOTELES Hopper

Thaumatoteles Hopper, 1938. Amer. Ent. Soc. Trans. 68: 103.
Type: *Hoplismenus ornatus* Cresson. Orig. desig.

ornatus (Cresson). N. Y., N. J., Md.
Hoplismenus ornatus Cresson, 1869. Amer. Ent. Soc. Trans. 2: 92. ♀.
Platylabus foxi Davis, 1898. Amer. Ent. Soc. Trans. 24: 353. ♂.
Hoplismenus ovatus Berthoumieu, 1904. *In* Wytsman, Gen. Ins., fasc. 18, p. 30. *Lapsus* for *H. ornatus*.
Taxonomy: Hopper, 1938. Amer. Ent. Soc. Trans. 64: 105. ♀.

Genus HYPOMECUS Wesmael

Hypomecus Wesmael, 1844. Acad. Sci. Bruxelles Nouv. Mém. 18: 111, 147.
Type: (*Hypomecus albitarsis* Wesmael) = [*Mesoleptus*] *quadriannulatus* (Gravenhorst). Monob.

quadriannulatus (Gravenhorst). Wash., Calif., Colo. in Transit. Zone; Europe.
Mesoleptus quadriannulatus Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 13. ♂.

Genus ECTOPIUS Wesmael

Ectopius Wesmael, 1859. Acad. Sci. Belg. Mém. 8: 14.
Type: (*Ichneumon rubellus* Gravenhorst) = [*Ichneumon*] *rubellus* (Gmelin). Monob.

gracilicornis (Provancher). Ont. (Ottawa).
Phygadeuon gracilicornis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 56. ♀.

impressus (Provancher). Que., N. H., Mass., N. Y., Wash. Transit. Zone.
Phygadeuon impressus Provancher, 1874. Nat. Canad. 6: 281. ♀.
Ichneumon erythropygus Provancher, 1875. Nat. Canad. 7: 24, 79. ♀.

subdentatus (Ashmead). Alaska, Wash., Oreg.; Canad. and Transit. Zones.
Probolus subdentatus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 160. ♂.

thoracicus (Cresson). N. Y., R. I., Pa.
Hoplismenus thoracicus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 288. ♂.

Tribe LISTRODROMINI

Members of this tribe prefer Lycaenidae as hosts.

Genus ANISOBAS Wesmael

Anisobas Wesmael, 1844. Acad. Sci. Bruxelles Nouv. Mém. 18: 111, 145.
Type: (*Ichneumon cingulatorius* Wesmael) = [*Ichneumon*] *cingulatorius* (Gravenhorst). Desig. by Ashmead, 1900.
Lycaeniphilos Heinrich, 1933. Zool. Mus. Berlin Mitt. 19: 158. N. syn.
Type: *Anisobas cephalotes* Kreichbaumer. Orig. desig.

bicolor Cushman. Idaho, Nev., Utah, Ariz., Calif. Host: *Strymon adenostomatis* (Hy. Edw.).
Anisobas bicolor Cushman, 1926. U. S. Natl. Mus. Proc. 67 (23): 2. ♂ ♀.

coloradensis (Cresson). Colo., Ariz.
Amblyteles coloradensis Cresson, 1877. Amer. Ent. Soc. Trans. 6: 193. ♀.

separatus (Davis). Ill., Tex., Ariz.
Eurylabus separatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 353. "♂" = ♀.

texensis (Ashmead). Que., Ont., Maine, Pa., Va., Mich., Tex.
Cryptus texensis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 410. "♂" = ♀.
Platylabus luzernensis Bradley, 1903. Canad. Ent. 35: 282. ♀. N. syn.
Anisobas nearcticus Cushman, 1926. U. S. Natl. Mus. Proc. 67 (2): 2. ♀.

Genus NEOTYPUS Foerster

Neotypus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 194.
Type: *Ichneumon lapidator* Fabricius, 1793. Desig. by Ashmead, 1900.
Cillimus Tosquinet, 1896. Soc. Ent. de Belg. Mém. 5: 122.
Type: *Cillimus adornatus* Tosquinet. Desig. by Ashmead, 1900.

nobilitator (Gravenhorst). Atlantic to Cont. Divide in Transit. and U. Austr Zones; Europe. Presumably introduced. Recorded in America erroneously as the European *N. lapidator*.
Ichneumon nobilitator Gravenhorst, 1807. Vergl. Übers. Zool. System., p. 235. ♀.
Neotypus americanus Cushman, 1926. U. S. Natl. Mus. Proc. 67 (23): 1. ♂. N. syn.
Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 236, 250.

Tribe ISCHNOJOPPINI

Genus TROGOMORPHA Ashmead

Trogomorpha Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 15.
Type: *Ichneumon trogiformis* Cresson. Orig. desig.

arrogans (Cresson). Tex. (Brownsville and Gillespie Co.), south to Columbia Perhaps a subspecies of *T. trogiformis*.
Ichneumon arrogans Cresson, 1873. Acad. Nat. Sci. Phila. Proc. 25: 115. ♂ ♀.
Ichneumon panamensis Cameron, 1885. Biol. Cent.-Amer., Hym., v. 1, p. 158. ♂. N. syn.

trogiformis (Cresson). Gulf and Atlantic States north to N. Y. in U. Austr. and L Austr. Zones. Overgrown fields.
Ichneumon ferrugator Fabricius, 1793. Ent. System., v. 2, p. 154. Preocc.
Ichneumon trogiformis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 175. ♂.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 175. ♂ ♀.

Tribe ACANTHOJOPPINI

Genus PSEUDOPLATYLABUS Smits van Burgst

Pseudoplatylabus Smits van Burgst, 1920. Ent. Ber. 5: 282.
Type: (***Pseudoplatylabus caudatus*** Smits van Burgst) = [***Ichneumon***] ***violentus*** (Gravenhorst). Monob.

An undescribed Nearctic species occurs in Rhode Island and New York.

Tribe EURYLABINI

Genus PROBOLUS Wesmael

Probolus Wesmael, 1844. Acad. Sci. Bruxelles Nouv. Mém. 18: 150.
Type: (***Ichneumon fossorius*** Gravenhorst) = [***Ichneumon***] ***alticola*** (Gravenhorst). Monob.

expunctus (Cresson). Que., Ont., N. Y., Ohio, Colo.
Ichneumon obliteratus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 147. ♂. Preocc.
Ichneumon expunctus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 290. N. name.
Trogus Provancheri Burque, 1879. Nat. Canad. 11: 128. ♂.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 189.—Provancher, 1882. Nat. Canad. 13: 327.

illaetabilis (Cresson). Mass., N. Y., Ga.
Amblyteles illaetabilis Cresson, 1877. Amer. Ent. Soc. Trans. 6: 190. ♂.
Amblyteles innotabilis Ashmead, 1900. N. J. Bd. Agr. Ann. Rpt. 27 (Sup.): 567. *Lapsus* for *illaetabilis*.

indistinctus (Provancher). Que., N. Y.
Ichneumon indistinctus Provancher, 1875. Nat. Canad. 7: 23, 75. ♀.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 192.

Tribe AMBLYTELINI

Genus HOPLISMENUS Gravenhorst

Hoplismenus Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 409.
Type: (***Hoplismenus maestus*** Gravenhorst) = [***Ichneumon***] ***armatorius*** (Panzer). Desig. by Westwood, 1839.
Rhysaspis Tischbein, 1874. Stettin. Ent. Ztg. 35: 139.
Type: ***Rhysaspis rugosus*** Tischbein. Monob.
Revision: Swift, 1946. Ent. Soc. Amer. Ann. 39: 397–410.

Members of this genus are parasites of butterfly pupae.

arizonensis Swift. Ariz. (Santa Catalina Mts.).
Hoplismenus arizonensis Swift, 1946. Ent. Soc. Amer. Ann. 39: 404. ♀.

morulus flavitarsis (Cresson). Colo., N. Mex., Utah.
Trogus flavitarsis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 264. ♂.

morulus morulus (Say). Atlantic to Cont. Divide in Transit. and U. Austr. Zones. Hosts: *Nymphalis antiopa* (L.); *Polygonia interrogationis* (F.); *Vanessa cardui* (L.)?
Ichneumon morulus Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 73. ♀.
Ichneumon calcaratus Provancher, 1875. Nat. Canad. 7: 21, 49. ♂.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 141.—Swift, 1946. Ent. Soc. Amer. Ann. 39: 400–402.

morulus pacificus Cresson. B. C., Wash., Oreg., Calif. Host: *Nymphalis californica* (Bdvl.).
Hoplismenus pacificus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 186. ♂ ♀.

praeruptus Swift. Conn., N. Y., Wash.
Hoplismenus praeruptus Swift, 1946. Ent. Soc. Amer. Ann. 39: 407. ♀.

propitius (Cresson). Atlantic to 100° W. in Transit. and U. Austr. Zones; also south. Mexico. Hosts: *Melitaea harrisii* Scud.; *Phyciodes tharos* (Drury).
Ichneumon propitius Cresson, 1872. Amer. Ent. Soc. Trans. 4: 156. ♂.
Ichneumon tharotis Packard, 1881. Boston Soc. Nat. Hist. Proc. 21: 22. ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 139.—Swift, 1946. Ent. Soc. Amer. Ann. 39: 407–409.

rutilus rutilus (Cresson). Mass., R. I., Pa., Va.
Ichneumon rutilus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 169. ♀.

rutilus tenuis Swift. Colo., Wyo., Oreg.
Hoplismenus rutilus tenuis Swift, 1946. Ent. Soc. Amer. Ann. 39: 407. ♀.

scutellatus (Provancher). Idaho, Que.
Ichneumon scutellatus Provancher, 1875. Nat. Canad. 7: 24, 78. ♂ ♀.
Hoplismenus transversus Davis, 1898. Amer. Ent. Soc. Trans. 24: 351. ♂.

teres Swift. Ohio, Md., Va., N. C., Ga., Fla., La. Host: *Precis coenia* (Hbn.).
Hoplismenus teres Swift, 1946. Ent. Soc. Amer. Ann. 39: 409.
Biology: Swift, 1946. Ent. Soc. Amer. Ann. 39: 409.

Genus LOBAEGIS Townes

Lobaegis Townes, 1946. Bol. Ent. Venezolana 5: 54.
Type: *Ichneumon maritus* Cresson. Orig. desig.

An undescribed species occurs in the Upper Austral and Lower Austral Zones of the Atlantic States.

Genus NARTHECURA Townes

Narthecura Townes, 1946. Bol. Ent. Venezolana 5: 50.
Type: *Hoplismenus munitus* Cresson. Orig. desig.

An undescribed species occurs in the Canadian Zone of the White Mountains of Arizona.

Genus PLAGIOTRYPES Ashmead

Plagiotrypes Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 20.
Type: *Ichneumon concinnus* Say. Orig. desig.
Neopyga Heinrich, 1930. Zool. Mus. Berlin Mitt. 15: 545.
Type: *Neopyga armata* Heinrich. Desig. by Townes, 1944.

concinnus (Say). Atlantic to 100° W. in U. Austr. and L. Austr. Zones.
Ichneumon concinnus Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 68. ♀ (Not second ♀ described).
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 194.—Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 164.

Genus LIMONETHE Townes

Limonethe Townes, 1946. Bol. Ent. Venezolana 5: 56.
Type: (*Ichneumon insolens* Cresson) = [*Joppa*] *maurator* (Brullé). Orig. desig.

maurator (Brullé). Atlantic to 100° W. in U. Austr. and L. Austr. Zones. Overgrown grassy fields. Rarely in Transit. Zone.
Joppa maurator Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 287. ♂ ♀.
Ichneumon insolens Cresson, 1867. Amer. Ent. Soc. Trans. 1: 302. ♂ ♀.
Joppa Canadensis Provancher, 1874. Nat. Canad. 6: 336. ♀.
Taxonomy: Howard, 1902. The Insect Book, Pl. 9, fig. 13.

Genus MELANICHNEUMON Thomson

Melanichneumon Thomson, 1893. Opusc. Ent., fasc. 18, p. 1954.
Type: *Ichneumon spectabilis* Holmgren. Desig. by Ashmead, 1900.
Barichneumon Thomson, 1893. Opusc. Ent., fasc. 18, p. 1959.

Type: ***Ichneumon anator*** Gravenhorst. Desig. by Ashmead, 1900.

Bystra Cameron, 1902. Ann. Mag. Nat. Hist. (7) 9: 149.
Type: ***Bystra testacea*** Cameron. Monob.

Gurfyia Cameron, 1903. Ztschr. System. Hym. Dipt. 3: 178.
Type: ***Gurfyia albipilosa*** Cameron. Monob.

Harsaces Cameron, 1903. Ent. 36: 238.
Type: ***Harsaces nigripes*** Cameron. Monob.

Lissosculpta Heinrich, 1934. Zool. Mus. Berlin Mitt. 20: 193.
Type: ***Ichneumon impexus*** Tosquinet. Orig. desig.

Intermedichneumon Heinrich, 1934. Zool. Mus. Berlin Mitt. 20: 194.
Type: ***Ichneumon ocellus*** Tosquinet. Orig. desig.

Menkokia Heinrich, 1934. Zool. Mus. Berlin Mitt. 20: 194.
Type: ***Melanichneumon (Menkokia) major*** Heinrich. Orig. desig.

Revision: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 130–185.

Most members of this genus prefer the drier habitats.

absconditus (Provancher). Ont., Colo.
Ichneumon absconditus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 31. ♂.

albomarginatus (Cresson). Que., Ont., N. H., Vt., Ohio, Ind., Miss.
Ichneumon albomarginatus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 297. ♂.

annulicornis (Ashmead). La. (Bayou Sara).
Colpognathus annulicornis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 396. ♀.

blandii (Cresson). N. Y. to N. C. in Transit. and U. Austr. Zones. Moist woods.
Ischnus blandii Cresson, 1864. Ent. Soc. Phila. Proc. 3: 188. ♂.

brevicinctor (Say). Transcont. in Transit. and U. Austr. Zones. Hosts: *Pyrausta nubilalis* (Hbn.); *Itame sulphurea* (Pack.); *Achatodes zeae* (Harr.); *Bleptina* sp.; *Callopistria floridensis* (Guen.), *Cirphis unipuncta* (Haw.); *Lascoria ambigualis* (Wlkr.); *Macronoctua onusta* Grote; *Hyphantria cunea* (Drury).
Ichneumon brevicinctor Say, 1825. Amer. Ent. 2: 49. ♂.
Ichneumon extrematis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 149. ♀.
Ichneumon extrematatis (!) Cresson, 1867. Amer. Ent. Soc. Trans. 1: 290. *Lapsus* for *I. extrematis*.
Phygadeuon niger Provancher, 1874. Nat. Canad. 6: 280. ♀.
Biology: Chittenden, 1913. U. S. Dept. Agr., Bur. Ent. Bul. 125: 10.—Breakey, 1930. Ent. Soc. Amer. Ann. 23: 187.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 139.

cordatus (Cresson). Colo.
Ichneumon cordatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 146. ♂.

disparilis (Cresson). Maine and Ont. to S. C. and Tenn. Transit. and U. Austr. Zones.
Ichneumon disparilis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 307. ♀.

gestuosus (Cresson). Atlantic to Cont. Divide in Transit. Zone.
Ichneumon gestuosus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 156. ♀.
Cratichneumon pluto Viereck, 1903. Amer. Ent. Soc. Trans. 29: 78. ♂.
Amblyteles ohioensis DeGant, 1933. U. S. Natl. Mus. Proc. 82 (11): 1. ♂ ♀.

heiligbrodtii (Cresson). Tex. (Bastrop).
Ichneumon Heiligbrodtii Cresson, 1877. Amer. Ent. Soc. Trans. 6: 168. ♂.

helvipes (Cresson). Atlantic to 100° W. in Transit. Zone.
Ichneumon helvipes Cresson, 1867. Amer. Ent. Soc. Trans. 1: 297. ♂ ♀.
Phygadeuon niger Provancher, 1876. Nat. Canad. 8: 317. ♀. Preocc.
Phygadeuon electus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 51. "♀" = ♂.

honestus (Cresson). W. Va.
Ichneumon honestus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 310. ♂.

leviculus (Cresson). Maine to N. C.
Ichneumon leviculus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 170. ♂.

libens (Cresson). R. I., Conn., N. Y., N. J., Md., Ill.
Ichneumon libens Cresson, 1877. Amer. Ent. Soc. Trans. 6: 181. ♂.

limbifrons (Cresson). Colo.
Ichneumon limbifrons Cresson, 1864. Ent. Soc. Phila. Proc. 3: 182. ♂.

mimicus (Cresson). Atlantic to Ill. in Transit. Zone.
Ichneumon mimicus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 300. ♂.

nigripes (Provancher). Que. (Cap Rouge).
Ichneumon nigripes Provancher, 1882. Nat. Canad. 13: 310, 324. ♂.

ornatipes (Cresson). W. Va.
Ichneumon ornatipes Cresson, 1867. Amer. Ent. Soc. Trans. 1: 294. ♂.

residuus (Say). Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: *Alsophila pometaria* (Harr.).
Ichneumon residuus Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 73. ♀.
Ichneumon utilis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 311. ♂.
Platylabus (*Colocnema?*) *omniferrugineus* Viereck, 1905. Kans. Acad. Sci. Trans. 19: 322. ♀.
Taxonomy: Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 167.

rubicundus (Cresson). Atlantic to 100° W. in Transit., U. Austr. and L. Austr. Zones; Calif.; Hawaii. Grassy fields. Hosts: *Pyrausta nubilalis* (Hbn.); *Laphygma exigua* (Hbn.); *Macronoctua onusta* Grote.
Ichneumon rubicundus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 176. ♀.
Ichneumon mucronatus Provancher, 1875. Nat. Canad. 7: 24, 81. ♀.
Ichneumon blanchardi Davis, 1898. Amer. Ent. Soc. Trans. 24: 350. ♀.
Biology: Townes, 1939. Ent. News 49: 219.—Wishart, 1949. Canad. Ent. 80: 118–137.
Taxonomy: Wishart, 1949. Canad. Ent. 80: 118–137.

saevus (Cresson). R. I., Ill.
Ichneumon saevus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 296. ♀.

saundersii (Cresson). Alta., N. Y.
Ichneumon Saundersii Cresson, 1877. Amer. Ent. Soc. Trans. 6: 177. ♂.

solitus (Cresson). B. C., Wash., Ariz., N. Mex.
Ichneumon solitus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 144. ♀.

soror (Cresson). Ont., N. Y., Del., N. J.
Ichneumon soror Cresson, 1864. Ent. Soc. Phila. Proc. 3: 185. ♀.
Ichneumon bimaculatus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 357. ♂. Preocc.
Ichneumon bimacularis Dalla Torre, 1902. Cat. Hym., v. 3, p. 863. N. name for *I. bimaculatus*.

subcyaneus (Cresson). Atlantic to Rocky Mts. in Transit. and U. Austr. Zones. Hosts: *Diacrisia virginica* (F.); *Hyphantria cunea* (Drury).
Ichnemon pullatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 146. ♂.
Ichneumon subcyaneus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 148. ♀.
Biology: Howard, 1897. U. S. Dept. Agr. Div. Ent. Tech. Ser. 5: 30.—Blackman and Stage, 1924. N. Y. Col. Forestry Tech. Pub. 17: 181.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 140.

terminalis (Cresson). Atlantic to 100° W. in Canad., Transit., and U. Austr. Zones.
Ichneumon terminalis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 184. ♀.
Ichneumon finitimus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 302. "♀" = ♂.
Mesostenus apicalis Provancher, 1875. Nat. Canad. 7: 266, 267. ♂.
Phygadeuon brevicaudus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 54. ♀.

texanus (Cresson). R. I., N. Y., Alta., Tex.
Ichneumon texanus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 159. ♂.

virginicus (Cresson). W. Va.
Ichneumon virginicus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 181. ♀.

vultus (Cresson). Colo.
Ichneumon vultus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 165. ♂.

xanthogrammus (Ashmead). Kans., Tex.
Ichneumon xanthogrammus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 390. ♂.

zebratus (Cresson). Transcont. in U. Austr. and L. Austr. Zones. Host: *Prochoerodes forficaria* (Guen.).
Ichneumon zebratus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 299. ♀.

Genus CRATICHNEUMON Thomson

Cratichneumon Thomson, 1893. Opusc. Ent., fasc. 18, p. 1945.
Type: (*Ichneumon luteiventris* Thomson) = [*Ichneumon*] *luteiventris* (Gravenhorst) Desig. by Ashmead, 1900.
?Cosmiojoppa Cameron, 1902. Ztschr. System. Hym. Dipt. 2: 395.
Type: *Cosmiojoppa violaceipennis* Cameron. Monob.
Lareiga Cameron, 1903. Ztschr. System. Hym. Dipt. 3: 13.
Type: *Lareiga rufofemorata* Cameron. Monob.
Belargea Cameron, 1903. Ztschr. System. Hym. Dipt. 3: 15.
Type: *Belargea albomaculata* Cameron. Monob.
Odontojoppa Cameron, 1903. Ztschr. System. Hym. Dipt. 3: 16, 177.
Type: *Odontojoppa metallica* Cameron. Monob.
Sycaonia Cameron, 1903. Ent. Soc. London Trans., p. 224.
Type: *Sycaonia rufofacies* Cameron. Monob.
?Vabsaris Cameron, 1903. Entomologist 36: 96.
Type: *Vabsaris forticornis* Cameron. Monob.
?Lynteria Cameron, 1904. Ztschr. System. Hym. Dipt. 4: 220.
Type: *Lynteria violaceipennis* Cameron. Monob.
?Lissichneumon Cameron, 1906. Entomologist 39: 227.
Type: *Lissichneumon levis* Cameron. Monob.
Neocratichneumon Heinrich, 1938. Acad. Malagache Mém. 25: 94.
Type: *Cratichneumon* (*Neocratichneumon*) *frequentior* Heinrich. Orig. desig.
Aculichneumon Heinrich, 1938. Acad. Malagache Mém. 25: 98.
Type: *Cratichneumon* (*Aculichneumon*) *longicauda* Heinrich. Orig. desig.
Seyrigichneumon Heinrich, 1938. Acad. Malagache Mém. 25: 99.
Type: *Cratichneumon* (*Seyrigichneumon*) *curticauda* Heinrich. Orig. desig.
Revision: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 130–185.

acerbus (Cresson). Atlantic to Cont. Divide in Canad. and Transit. Zones. Host: *Protoboarmia porcelaria* (Grote).
Ichneumon acerbus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 293. ♂.
Ichneumon corvinus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 145. ♀.

alternans (Provancher). Que.
Phygadeuon alternans Provancher, 1882. Nat. Canad. 13: 335, 358. ♀.

annulatipes (Provancher). Ont. (Ottawa).
Phaeogenes annulatipes Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 43. ♀.

annulatus (Provancher). Que., Ont., N. H., Mass., R. I., N. Y., Pa.
Mesostenus annulatus Provancher, 1875. Nat. Canad. 7: 265, 267. ♂.

arizonensis (Viereck). Ariz. (Oak Creek Canyon).
Ichneumon (*Eurylabus*) *arizonensis* Viereck, 1905. Kans. Acad. Sci. Trans. 19: 295. ♀.

ashmeadi (Schulz). Alaska, Wash., Oreg. Transit. Zone.
Ichneumon imitator Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 151. ♂. Preocc.
Ichneumon Ashmeadi Schulz, 1906. Spolia Hym., p. 128. N. name.

burrus (Cresson). Fla., Cuba.
Ichneumon burrus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 14. ♀.

confusus Ashmead. Alaska (Popof Isl.).
Cratichneumon confusus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 158. ♂.

Plectocryptus popofensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 183. ♀.
Plectocryptus yakutatensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 183. ♀. Preocc.

duplicatus (Say). N. Y., N. J., Md., W. Va. Transit. and U. Austr. Zones. Most records of *duplicatus* in literature apply to *C. signatipes* (misdet.).
Ichneumon duplicatus Say, 1836. Boston Jour. Nat. Hist. 1: 230. ♂.

ericaeus Townes. N. H. to N. C. in Transit., U. Austr., and L. Austr. Zones. Dry and mesophytic woods.
Ichneumon pygmaeus Davis, 1898. Amer. Ent. Soc. Trans. 24: 350. ♀. Preocc.
Cratichneumon ericaeus Townes, 1944. Amer. Ent. Soc. Mem. 11: 335. N. name.

erythromelas (MacLachlan). Ellesmere Isl. at 82° 29′ N.
Ichneumon erythromelas MacLachlan, 1878. Linnean Soc. Zool. Jour. 14: 106. ♀.
Taxonomy: Strand, 1905. Second Norwegian Arctic Exped. in the "Fram" 1898-1902 Rpt. No. 3, p. 6.—Roman, 1930. Ann. Mag. Nat. Hist. (10) 5: 282.

facetus (Cresson). R. I., N. Y., Md., W. Va., Va., N. C. U. Austr. Zone.
Ichneumon facetus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 311. ♂.

involutus (Cresson). Colo.
Ichneumon involutus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 183. ♀.

kincaidi (Ashmead). Alaska, Sask.
Ichneumon kincaidi Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 152. ♂.
Cratichneumon alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 157. ♂.

lariae (Curtis). "Arctic America."
Ichneumon Lariae Curtis, 1835. *In* Ross, Appendix to the Narrative of a Second Voyage in Search of a North-West Passage 1829-33, p. lxi. ♀.

magus (Wesmael). Europe; Greenland.
Ichneumon magus Wesmael, 1855. Acad. Sci. Belg. Bul. 22: 389. ♂ ♀.
Taxonomy: Roman, 1938. Ann. Mag. Nat. Hist. (11) 1: 538.

paratus (Say). Atlantic to 100° W. in Transit. and U. Austr. Zones. Mesophytic and dry woods.
Ichneumon parata Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 68. ♂.
Ichneumon annulipes Cresson, 1864. Ent. Soc. Phila. Proc. 3: 170. ♀.
Ichneumon pusillus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 171. ♀.

pectoralis (Say). Ind.
Ichneumon pectoralis Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 72. ♂.
Taxonomy: Say, 1836. Boston Jour. Nat. Hist. 1: 231.—Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 166.

petulcus (Cresson). Calif. (Santa Barbara).
Ichneumon petulcus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 185. ♀.

pilosulus (Provancher). Atlantic to Cont. Divide in Canad. and Transit. Zones.
Ichneumon pilosulus Provancher, 1875. Nat. Canad. 7: 25. ♀.

popofensis Ashmead. Alaska, Que.
Cratichneumon popofensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 159. ♂ ♀.

promptus (Cresson). Atlantic to Cont. Divide in Canad. Zone. Host: *Protoboarmia porcelaria* (Guen.).
Ichneumon promptus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 152. ♂ ♀.

proximus (Cresson). Atlantic to Ill. in Transit. and U. Austr. Zones.
Ischnus proximus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 187. ♂.
Ichneumon sagus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 294. ♀. (♂ misdet.).

pteridis Townes. Que., Maine, N. H., N. Y., Pa. Canad. and Transit. Zones.
Phygadeuon proximus Provancher, 1874. Nat. Canad. 6: 283. ♀. Preocc.
Cratichneumon pteridis Townes, 1944. Amer. Ent. Soc. Mem. 11: 339. N. name.

quintilis (Viereck). Maine and Que. to W. Va. Transit. Zone.
Ichneumon nanus Cresson, 1877. Amer. Ent. Soc. Trans. 4: 184. ♀. Preocc.
Amblyteles (Pterocormus) quintilis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 354, 357. ♂.
Amblyteles nanodes Cushman, 1925. Wash. Acad. Sci. Jour. 15: 388. N. name for *I. nanus*.

rubricus (Provancher). Que., N. Y.,
Phygadeuon rubricus Provancher, 1882. Nat. Canad. 13: 335, 358. ♀.

russatus (Cresson). B. C., Wash., Calif., Colo., Ariz. Transit. and Canad. Zones.
Ichneumon russatus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 183. ♀.
Ichneumon (Barichneumon) citrinifacialis Viereck, 1905. Kans. Acad. Sci. Trans. 19: 297. ♂.

scitulus (Cresson). Atlantic to Cont. Divide in Transit. Zone.
Ischnus scitulus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 193. ♂.
?Cryptus flavipectus Provancher, 1879. Nat. Canad. 11: 134. "♀" = ♂.

signatipes (Cresson). Atlantic to 100° W. in Transit. and U. Austr. Zones. The ♂ frequently misdet. as *C. duplicatus* Say. Hosts: Reported from *Coryphista meadii* (Pack.); *Diacrisia virginica* (F.); *Isia isabella* (A. and S.); *Proteides clarus* (Cram.).
Ichneumon signatipes Cresson, 1867. Amer. Ent. Soc. Trans. 1: 308. ♀.
Ichneumon lobatus Provancher, 1875. Nat. Canad. 7: 23, 77. ♂.
Ichneumon? (Stiboscopus?) oryxicornis Viereck, 1905. Kans. Acad. Sci. Trans. 19: 324. ♂.
Amblyteles (Barichneumon?) duplicatiformis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 354, 360. ♂.
Biology: Riley, 1880. Amer. Ent. 3: 134.

suadus (Cresson). Que., N. Y., R. I., Conn., Pa. Transit. Zone.
Ichneumon suadus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 160. ♂.

sublatus (Cresson). Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: *Heterocampa guttivitta* (Wlkr.).
Ischnus sublatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 186. ♂.
Ichneumon pravus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 151. ♀.
Biology: Patch, 1908. Maine Agr. Expt. Sta. Bul. 161: 340. ♂. ♀ —Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 140.

unifasciatorius (Say). Transcont. in Transit., U. Austr. and L. Austr. Zones. Hosts: *Hemerocampa leucostigma* (A. and S.); *Notolophus antiquus* (L.); *Arctia* sp.; *Diacrisia virginica* (F.); *Halisidota caryae* (Harr.); *H. tesselaris* (A. and S.); *Acronicta oblinita* (A. and S.).
Ichneumon unifasciatorius Say, 1825. Amer. Ent. 2: 48. ♂.
Ichneumon malacus Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 72. ♀.
Ichneumon niger Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 302. ?♂ ♀.
Ichneumon afer Cresson, 1864. Ent. Soc. Phila. Proc. 3: 138. ♀.
Ichneumon scriptifrons Cresson, 1877. Amer. Ent. Soc. Trans. 6: 144. ♂.
Ichneumon Vancouveriensis Provancher, 1885. Canad. Ent. 17: 114. ♂.
Ichneumon aterrimus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 30. ♀.
Taxonomy: Howard, 1902. The Insect Book, pl. 9, fig. 16; pl. 10, fig. 10.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 140.

vescus (Provancher). Atlantic to Cont. Divide in Canad. and Transit. Zones.
Ichneumon vescus Provancher, 1877. Nat. Canad. 9: 9. ♂.

vinnulus (Cresson). Vt. to S. C., west to Ohio. Transit., U. Austr., and L. Austr. Zones.
Ischnus vinnulus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 189. ♂.

volens (Cresson). Atlantic to 100° W. in U. Austr. Zone. Grassy overgrown fields. Host: *Protoleucania albilinea* (Hbn.).
Ischnus volens Cresson, 1864. Ent. Soc. Phila. Proc. 3: 192. ♂.
Ichneumon brevipennis var. *obsoletus* Riley, 1877. Ins. Mo. Ann. Rpt. 9: 55. ♀. N. syn.

w-album (Cresson). Atlantic to 100° W. in Transit. and U. Austr. Zones.
Ischnus w-album Cresson, 1864. Ent. Soc. Phila. Proc. 3: 191. ♂.

Ischnus variegatus Provancher, 1875. Nat. Canad. 7: 250. ♂.
Taxonomy: Howard, 1902. The Insect Book, pl. 10, fig. 6.

yakutatensis Ashmead. Alaska.
Cratichneumon yakutatensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 157. ♂.

Genus AOPLUS Tischbein

Aoplus Tischbein, 1874. Stettin. Ent. Ztg. 35: 137.
Type: *Aoplus inermis* Tischbein. Monob.
Stenichneumon Thomson, 1893. Opusc. Ent., fasc. 18, p. 1964.
Type: *Ichneumon pistorius* Gravenhorst. Desig. by Viereck, 1914.
Trachichneumon Viereck, 1912. U. S. Natl. Mus. Proc. 42: 645.
Type: *Ichneumon confirmatus* Cresson. Monob.
Revision: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 130–185.

cestus (Cresson). B. C., Wash., Oreg., Idaho. Host: *Lambdina fiscellaria somniaria* (Hlst.).
Ichneumon cestus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 182. ♀.

cincticornis (Cresson). Transcont. in Transit. and U. Austr. Zones. Host: *Trichoplusia ni* (Hbn.).
Ichneumon cincticornis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 139. ♀.
Ichneumon galenus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 292. ♂.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 139.—Townes, 1938. Ent. News 49: 219.

confirmatus (Cresson). Atlantic to Cont. Divide in Transit. and Canad. Zones.
Ichneumon confirmatus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 178. ♀.
Phygadeuon jocosus (as *P. potens* in key) Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., pp. 47, 53. ♀.

leucopsis (Ashmead). Wash., Oreg., Calif.
Ichneumon leucopsis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 391. ♂.

mathewi (Cameron). B. C. (Vancouver Isl.).
Ichneumon mathewi Cameron, 1907. Ent. 40: 277. ♂.

militarius (Thunberg). Transcont. in Canad. Zone; Europe.
Ichneumon militarius Thunberg, 1822. Acad. Sci. St. Pétersburg Mém. 8: 254. ♀.

ochropis (Gmelin). Alta., Alaska; Europe.
Ichneumon ochropis Gmelin, 1790. *In* Linnaeus, System. Nat., Ed. 13, p. 2679.
Melanichneumon seldoviae Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 155. ♂.

opacitas (Davis). Idaho (Moscow).
Platylabus opacitas Davis, 1898. Amer. Ent. Soc. Trans. 24: 353. ♂.

salvus bioculatus (Cresson), n. status. Maine, N. H., Mich., "Canada."
Ichneumon bioculatus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 158. ♂ ♀.

salvus pallidipennis (Viereck), n. status. Alta., Mont., Colo., N. Mex., Utah.
Cratichneumon pedalis var. *pallidipennis* Viereck, 1902. Ent. News 13: 87. ♂.

salvus salvus (Cresson). B. C., Wash., Oreg., Calif.
Ichneumon salvus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 166. ♂.
Cratichneumon rubicundus Bradley, 1904. Ztschr. System. Hym. Dipt. 4: 106. ♀. N. syn.

vagans sitkensis (Ashmead), n. status. Alta., Alaska.
Ichneumon sitkensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 152. ♂.
Ichneumon simulator Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 153. ♂.

vagans vagans (Provancher). Transcont. in Canad. Zone.
Ichneumon vagans Provancher, 1875. Nat. Canad. 7: 22, 51. ♂.

velox (Cresson). Transcont. in Canad. Zone and cooler parts of Transit. Zone. Hosts: *Lambdina fiscellaria fiscellaria* (Guen.); *Nepytia canosaria* (Wlkr.).
Ichneumon velox Cresson, 1864. Ent. Soc. Phil. Proc. 3: 185. ♀.

Ichneumon puerilis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 296. ♂.
Ichneumon mellicoxus Provancher, 1875. Nat. Canad. 7: 21, 48. ♂.
Phygadeuon apicatus Provancher, 1875. Nat. Canad. 7: 180, 183. ♀.
Phygadeuon cressoni Provancher, 1876. Nat. Canad. 8: 318. ♀.
Ichneumon occidentalis Harrington, 1894. Canad. Ent. 26: 210. ♀.
Biology: Schedl, 1931. Ztschr. Angew. Ent. 8: 270–273.—Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 30.

Genus PATROCLUS Cresson

Patroclus Cresson, 1873. Acad. Nat. Sci. Phila. Proc. 25: 104.
Type: ***Patroclus nigrocaeruleus*** Cresson. Desig. by Ashmead, 1900.

montanus montanus (Cresson). Atlantic to Cont. Divide, mostly in Canad. Zone.
Ichneumon montanus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 141. ♂ ♀.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 188.

montanus, n. subsp. Pacific to Cont. Divide in Canad. and Transit. Zones.

perluctuosus (Provancher). Atlantic to Cont. Divide in Canad. and Transit. Zones.
Amblyteles perluctuosus Provancher, 1877. Nat. Canad. 9: 10. "♂" = ♀.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 189. ♀.

Genus ANISOPYGUS Kriechbaumer

Anisopygus Kriechbaumer, 1888. K. K. Naturh. Hofmus. Ann. 3: 36.
Type: ***Amblyteles pseudonymus*** Wesmael. Monob.

Undescribed Nearctic species occur in Wisconsin and Alberta.

Genus EXEPHANES Wesmael

Exephanes Wesmael, 1844. Acad. Sci. Bruxelles Nouv. Mém. 18: 13, 17.
Type: ***Ichneumon hilaris*** Gravenhorst. Desig. by Ashmead, 1890.
Octatomus Tischbein, 1881. Stettin. Ent. Ztg. 42: 186.
Type: (***Octatomus tricolor*** Tischbein) = ***Exephanes femoralis*** Brischke. Monob.

subfulvus (Cresson). Colo., Alta.
Ichneumon subfulvus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 258. ♀.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 181.

terminalis (Provancher). Atlantic to Cont. Divide in Canad. Zone.
Phygadeuon terminalis Provancher, 1874. Nat. Canad. 6: 284. ♀.
Ichneumon caudatus Provancher, 1875. Nat. Canad. 7: 24, 82. ♀.
Phygadeuon Geddessii Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 54. ♀.
Amblyteles Cookii Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 392. ♀.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 173.

Genus ECTOPIMORPHA Viereck

Ectopimorpha Viereck, 1912. U. S. Natl. Mus. Proc. 43: 589.
Type: (***Amblyteles anceps*** Cresson) = [***Ischnus***] ***wilsoni*** (Cresson) Orig. desig.

hiulca (Cresson). B. C. (Lake Lahache).
Amblyteles hiulcus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 194. ♀.
Taxonomy: Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 355.

indemnis (Cresson). B. C.
Ichneumon indemnis Cresson, 1877. Amer. Ent. Soc. Trans. 6: 172. "♂" = ♀.
Taxonomy: Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 349.

luperinae Cushman. Maine, Mass., Iowa. Host: *Luperina stipata* (Morr.).
Ectopimorpha luperinae Cushman, 1931. U. S. Natl. Mus. Proc. 79 (14): 1. ♂ ♀.

Biology: Decker, 1930. Iowa State Col. Agr. Expt. Sta. Res. Bul. 125: 159.—Decker, 1935. Iowa State Col. Jour. Sci. 9: 571.

scibilis (Cresson). Ill.
Ichneumon scibilis Cresson, 1877. Amer. Ent. Soc. Trans. 6: 183. ♂.

wilsoni (Cresson). Atlantic to 100° W. in Transit. Zone.
Ischnus wilsoni Cresson, 1864. Ent. Soc. Phila. Proc. 3: 188. ♂.
Ichneumon anceps Cresson, 1867. Amer. Ent. Soc. Trans. 1: 309. ♀ ?♂.

Genus CHASMIAS Ashmead

Chasmodes Wesmael, 1844. Acad. Sci. Bruxelles Nouv. Mém. 18: 13, 15. Preocc.
Type: (*Ichneumon notatorius* (!) Gravenhorst) = [*Ichneumon*] *motatorius* (Fabricius). Desig. by Ashmead, 1900.
Chasmias Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 17. N. name.

saucius (Cresson). Mass. to N. C., west to Mich.
Ichneumon saucius Cresson, 1864. Ent. Soc. Phila. Proc. 3: 137. ♀.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 142.

scelestus (Cresson). Atlantic to Wis. and Ill. in Transit. Zone. Hosts: *Achatodes zeae* (Harr.); *Papaipema impecuniosa* (Grote); *Parapamea buffaloensis* (Grote).
Ichneumon scelestus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 148. ♀.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 147.
Biology: Townes, 1938. Ent. News 49: 219.

torvinus (Cresson). N. Y., Ill.
Ichneumon torvinus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 292. ♂.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 144.

Genus PSEUDAMBLYTELES Ashmead

Pseudamblyteles Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 18.
Type: *Amblyteles palliatorius* Gravenhorst. Orig. desig.
Physcoteles Berthoumieu, 1904. *In* Wytsman, Gen. Ins. fasc. 18, p. 51.
Type: *Amblyteles palliatorius* Gravenhorst. Desig. by Viereck, 1914.
Revision: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 130–194.

allapsus (Cresson). B. C., Alta., Colo.
Ichneumon allapsus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 256. ♂.

animosus (Cresson). Alta., Colo.
Ichneumon animosus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 164. ♂.

animosus var. **rubellus** (Cresson). Wash., Calif., Alta., Colo.
Ichneumon rubellus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 254. ♂.

apicalis (Cresson). Alta., Wyo., Colo.
Ichneumon apicalis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 152. ♂.

belfragei (Cresson). La., Tex., Colo.
Ichneumon Belfragei Cresson, 1872. Amer. Ent. Soc. Trans. 4: 156. ♂.

bizonatus (Cresson). Que., Ont., N. Y., Pa., Md., Alta.
Ichneumon bizonatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 160. ♀.

citrinus (Provancher). Ont. (Ottawa).
Ichneumon citrinus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 31. ♂.

cockerelli (Viereck). N. Mex. (Beulah).
Cratichneumon cockerelli Viereck, 1903. Amer. Ent. Soc. Trans. 29: 75. ♂.
Cratichneumon skinneri Viereck, 1903. Amer. Ent. Soc. Trans. 29: 77. ♂.

comes (Cresson). N. Y., Pa., Del., Mich.
Ichneumon comes Cresson, 1864. Ent. Soc. Phila. Proc. 3: 158. ♂.

comptus (Say). Atlantic to 100° W. in Transit. and U. Austr. Zones.
Ichneumon comptus Say, 1836. Boston Jour. Nat. Hist. 1: 229. ♂ ♀.

Ichneumon atrifrons Cresson, 1864. Ent. Soc. Phila. Proc. 3: 157. ♀.
Amblyteles marginatus Provancher, 1882. Nat. Canad. 13: 328. ♀.

dakota (Cresson). "Dakota Territory."
Ichneumon dakota Cresson, 1867. Amer. Ent. Soc. 1: 302. ♂.

delicatus (Cresson). Colo.
Ichneumon delicatus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 253. ♂.

dictiosus (Cresson). Kans.
Ichneumon dictiosus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 164. ♂.

discus (Cresson). Colo.
Ichneumon discus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 168. ♂.

flebilis (Cresson). "Canada."
Ichneumon flebilis Cresson, 1877. Amer. Ent. Soc. Trans. 6: 181. ♀.

grotei (Cresson). Colo., Alta.
Ichneumon grotei Cresson, 1864. Ent. Soc. Phila. Proc. 3: 154. ♂.
Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 246, 251.

hudsonicus (Cresson). Hudson Bay Ter.
Amblyteles hudsonicus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 192. ♀.

humphreyi (Viereck). Ariz. (Humphrey's Peak at 9500 ft.).
Ichneumon (Barichneumon) humphreyi Viereck, 1905. Kans. Acad. Sci. Trans. 19: 296. ♂.

koebelei (Swezey). Calif.; Hawaii. Host: *Cirphis unipuncta* (Haw.).
Ichneumon koebelei Swezey, 1909. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 7: 30. ♂ ♀.

lewisii (Cresson). Atlantic to 100° W. in U. Austr. Zone. Host: *Apantesis* sp.
Ichneumon Lewisii Cresson, 1864. Ent. Soc. Phila. Proc. 3: 177. ♀.
Ichneumon fulvopictus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 391. ♂. N. syn.

macilentus (Cresson). Mich., Alta., Colo.
Ichneumon macilentus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 249. ♂.

milvus (Cresson). N. S. to N. C., west to Ont. Canad. and Transit. Zones.
Ichneumon milvus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 305. ♂.
Ichneumon Clopini Provancher, 1875. Nat. Canad. 7: 250. ♂.

mormonus (Cresson). Que., Alta., Colo., Utah.
Amblyteles mormonus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 190. ♀.
Ichneumon adjunctus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 29. ♀.
Cratichneumon pedalis var. ***varitarsis*** Viereck, 1902. Ent. News 13: 87. ♀.

munificus (Cresson). Atlantic to Ill. in U. Austr. Zone. Overgrown fields in fall.
Ichneumon nobilis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 155. ♂. Preocc.
Ichneumon Munificus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 290. N. name.

nuncius (Cresson). Calif.
Ichneumon nuncius Cresson, 1877. Amer. Ent. Soc. Trans. 6: 176. ♂.
Biology: Snow, 1925. Jour. Econ. Ent. 18: 607.

ontariensis (Provancher). Ont. (Toronto).
Ichneumon Ontariensis Provancher, 1886. Addit. Corr. Faune Ent. Canad Hym., p. 30. "♀" = ♂.

robustus (Cresson). Transcont. in Canad. and Huds. Zones.
Ichneumon robustus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 298. ♀.

saguenayensis (Provancher). Que. (Chicoutimi).
Ichneumon Saguenayensis Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 356. ♂.

semissus (Cresson). Calif. (Mojave Desert).
Ichneumon semissus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 183. ♀.

sequax (Cresson). B. C. (Vancouver Isl.).
Ichneumon sequax Cresson, 1877. Amer. Ent. Soc. Trans. 6: 181. ♀.

subfuscus (Cresson). Colo.
Ichneumon subfuscus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 173. ♀.

succinctus (Brullé). Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: *Amathes c-nigrum* (L.).
Ichneumon succinctus Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 301. ♂.
Ichneumon sandix Cresson, 1864. Ent. Soc. Phila. Proc. 3: 174. ♀.

suturalis (Say). Colo.
Ichneumon suturalis Say, 1836. Boston Jour. Nat. Hist. 1: 226. ♀.
Ichneumon propinquus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 172. ♀.

taylorii (Harrington). B. C., Oreg.
Ichneumon Taylorii Harrington, 1894. Canad. Ent. 26: 209. ♂.

variegatus (Cresson). Alta., Colo., N. Mex., B. C., Wash.
Ichneumon variegatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 153. ♂.
Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 246, 249, 251.

ventralis (Cresson). Colo.
Ichneumon ventralis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 250. ♂.

Genus AMBLYTELES Wesmael

Amblyteles Wesmael, 1844. Acad. Sci. Bruxelles Nouv. Mém. 18: 111, 112.
Type: (*Amblyteles fasciatorius* Wesmael) = [*Ichneumon*] *armatorius* (Foerster). Desig. by Ashmead, 1900.
Revision: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 186-194.

alcatorius (Cresson). Transcont. in Transit. and U. Austr. Zones.
Ichneumon comes var. *aleatorius* Cresson, 1867. Amer. Ent. Soc. Trans. 1: 301. ♂.

belangeri Cresson. Ont., N. Y., Colo., Alaska.
Amblyteles Belangeri Cresson, 1877. Amer. Ent. Soc. Trans. 6: 190. ♀.
Cryptus dubius Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 71. "♂" = ♀.

bronteus (Cresson). Atlantic to Cont. Divide in Transit. and U. Austr. Zones.
Ichnemon bronteus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 144. ♂.

consignatus (Cresson). Mass., N. J., Md., W. Va., Ohio.
Ichneumon consignatus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 298. ♂.
Biology: Balduf, 1929. Ohio Jour. Sci. 29: 226.

crudosus (Cresson). Calif.
Ichneumon crudosus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 175. ♂.

fraternus Cresson. Mass., Va.
Amblyteles fraternus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 192. ♂.

improvisus (Cresson). N. S., Que., N. Y., N. J., Alta.
Ichneumon improvisus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 296. ♂.
Amblyteles tetricus Provancher, 1877. Nat. Canad. 9: 10. ♂ ♀.

inconstans (Cresson). Transcont. in Transit. Zone.
Ichneumon inconstans Cresson, 1864. Ent. Soc. Phila. Proc. 3: 153. ♂.

juxtus (Cresson). Colo.
Ichneumon juxtus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 163. ♂.

kodiakensis (Ashmead). Alaska (Kodiak).
Cratichneumon kodiakensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 157. ♂.

nubivagus (Cresson). Transcont. in Transit. and Canad. Zones. Host: Reported from *Cucullia intermedia* Speyer.
Ichneumon consimilis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 163. ♂. Preocc.
Ichneumon nubivagus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 291. N. name.
Ichneumon aequalis Provancher, 1875. Nat. Canad. 7: 23, 76. ♂.

ormenus (Cresson). Transcont. in Canad. Zone and in cooler part of Transit. Zone.
Ichneumon Ormenus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 141. ♀.

Ichneumon tenebrosus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 145. ♂. Preocc.
Ichneumon luctus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 250. N. name for *I. tenebrosus*.
Ichneumon mellipes Cresson, 1867. Amer. Ent. Soc. Trans. 1: 295. ♂.
Ichneumon Quebecensis Provancher, 1875. Nat. Canad. 7: 24, 77. ♂.
Pseudamblyteles neomexicanus Ashmead, 1901. Psyche 9: 147. ♂.

perannulatus Hopper. Transcont. in Transit. Zone.
Amblyteles perannulatus Hopper, 1938. Amer. Ent. Soc. Trans. 64: 98. ♀.

provancheri Cushman. Que., Md., Va., Mich.
Ichneumon bifasciatus Provancher, 1875. Nat. Canad. 7: 23, 75. ♀. Preocc.
Amblyteles provancheri Cushman, 1925. Wash. Acad. Sci. Jour. 15: 388. N. name.

rufizonatus (Cresson). Atlantic to 100° W. in Canad. Zone. and cooler part of Transit. Zone.
Ichneumon rufizonatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 183. ♀.
Ichneumon Marianopolitanensis Provancher, 1875. Nat. Canad. 24: 81. ♀.
Amblyteles balteatus Hopper, 1938. Amer. Ent. Soc. Trans. 64: 97. ♂. N. syn.

subrufus (Cresson). Transcont. in Transit. and U. Austr. Zones. Host: Reported from *Chorizagrotis auxiliaris* (Grote).
Ichneumon subrufus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 168. ♀.

superbus Provancher. B. C. (Vancouver Isl.).
Amblyteles superbus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 35. ♀.

torontosus Davis. Ont. (Toronto).
Amblyteles torontosus Davis, 1898. Amer. Ent. Soc. Trans. 24: 351. ♀.

Genus SPILICHNEUMON Thomson

Spilichneumon Thomson, 1894. Opusc. Ent., fasc. 19, p. 2087.
Type: (*Amblyteles occisorius* Gravenhorst) = [*Ichneumon*] *occisor* (Fabricius). Desig. by Ashmead, 1900.
Spiloteles Berthoumieu, 1904. *In* Wytsman, Gen. Ins., fasc. 18, p. 54.
Type: *Amblyteles occisor* (Fabricius). Desig. by Viereck, 1914.

pomilus (Provancher). Que.
Ichneumon pomilus Provancher, 1877. Nat. Canad. 9: 9. ♂.
Amblyteles borealis Provancher, 1882. Nat. Canad. 13: 328. ♀.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 164. ♂.

taos (Cresson). Alta., N. Mex.
Amblyteles Taos Cresson, 1877. Amer. Ent. Soc. Trans. 6: 191. ♀.

Genus CTENICHNEUMON Thomson

Ctenichneumon Thomson, 1894. Opusc. Ent., fasc. 19, p. 2082.
Type: (*Amblyteles funereus* Gravenhorst) = [*Ichneumon*] *funereus* (Fourcroy). Desig. by Ashmead, 1900.
Dochyteles Berthoumieu, 1904. *In* Wytsman, Gen. Ins., fasc. 18, p. 50.
Type: *Ichneumon funereus* Fourcroy. Desig. by Viereck, 1914.
Revision: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 186–194.

electus (Cresson). Atlantic to 100° W. in Transit. and U. Austr. Zones.
Ichneumon electus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 304. ♂.
Ichneumon nitidus Provancher, 1875. Nat. Canad. 7: 24, 79. ♂.

excultus (Cresson). Transcont. in Canad. and Transit. Zones.
Ichneumon excultus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 293. ♀.
Ichneumon Stadaconensis Provancher, 1875. Nat. Canad. 7: 22, 50. ♂. N. syn.

ruidosensis (Cockerell). N. Mex. (near Ruidoso at 6800 ft.).
Ichneumon ruidosensis Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 2: 456. ♂.

semicaeruleus (Cresson). Atlantic to Iowa in Transit. and U. Austr. Zones.
Ichneumon semicaeruleus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 302. ♀.

syphax (Cresson). Conn., N. Y., Del., Ohio, Alta.
?Ichneumon detritus Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 302. ♀.
Ichneumon syphax Cresson, 1864. Ent. Soc. Phila. Proc. 3: 181. ♀.

ultus (Cresson). Que. to S. C.
Ichneumon ultus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 295. ♂.
Ichneumon rogalis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 295. ♂.

Genus TRICHOLABUS Thomson

Tricholabus Thomson, 1894. Opusc. Ent., fasc. 19, pp. 2103, 2113.
Type: *Tricholabus femoralis* Thomson. Desig. by Viereck, 1914.
Otohimea Uchida, 1926. Coll. Agr. Hokkaido Univ. Jour. 18: 146.
Type: *Otohimea nigra* Uchida. Orig. desig.

adventicius (Hopper). N. Y. to Ga. U. Austr. Zone.
Ichneumon adventicius Hopper, 1938. Amer. Ent. Soc. Trans. 64: 101. ♂.

citatus (Provancher). Atlantic to Cont. Divide in Canad. and Transit. Zones.
Ichneumon citatus Provancher, 1877. Nat. Canad. 9: 8. ♂.
Ichneumon merus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 148. ♂.
Ichneumon apicator Hopper, 1938. Amer. Ent. Soc. Trans. 64: 100. ♂.

nortonii (Cresson). Atlantic to Cont. Divide in Canad. and Transit. Zones.
Ichneumon Nortonii Cresson, 1867. Amer. Ent. Soc. Trans. 1: 304. ♀.

pax (Dalla Torre). Wash. (Seattle).
Ichneumon pacificus Davis, 1898. Amer. Ent. Soc. Trans. 24: 350. ♂. Preocc.
Ichneumon pax Dalla Torre, 1902. Cat. Hym., v. 3, p. 964. N. name.

tricolor (Davis). Maine, S. Dak.
Amblyteles tricolor Davis, 1898. Amer. Ent. Soc. Trans. 24: 351. ♂ ♀.

Genus PTEROCORMUS Foerster

Ichneumon of authors, not of the genotype.
Brachypterus Gravenhorst, 1829. Ichn. Europaea, v. 1, p. 673. Preocc.
Type: (*Brachypterus means* Gravenhorst)=[*Ichneumon*] *latrator* (Fabricius). Desig. by Westwood, 1839.
Pterocormus Foerster, 1850. Arch. f. Naturgesch. 16: 71.
Type: (*Brachypterus means* Gravenhorst) = [*Ichneumon*] *latrator* (Fabricius). Orig. desig.
Euichneumon Berthoumieu, 1904. *In* Wytsman, Gen. Ins., v. 18, p. 33.
Type: *Ichneumon sarcitorius* Linnaeus. Desig. by Townes, 1944.
Revision: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 130–185.

adonis (Viereck). N. Mex. (Beulah).
Cratichneumon adonis Viereck, 1903. Amer. Ent. Soc. Trans. 29: 77. ♂.

alpestriformis (Viereck). Alaska (St. Paul Isl.).
Amblyteles (Pterocormus) alpestriformis Viereck, 1923. N. Amer. Fauna 46: 234. ♀.

approximans (Provancher). Ont. (Toronto).
Ichneumon approximans Provancher, 1886. Addit. Corr. Faune Ent. Canad. Hym., p. 32. ♂.

artemis (Viereck). Colo.
Cratichneumon artemis Viereck, 1902. Ent. News 13: 87. ♀.

atrox (Cresson). S. Dak., Alta.
Ichneumon atrox Cresson, 1877. Amer. Ent. Soc. Trans. 6: 151. ♀.

audax (Cresson). Colo.
Ichneumon audax Cresson, 1864. Ent. Soc. Phila. Proc. 3: 143. ♂.

aurivillii (Roman). Greenland.
Cratichneumon Aurivillii Roman, 1916. Arkiv för Zool. 10 (22): 5. ♀.

Taxonomy: Hendriksen and Lundbeck, 1918. Meddel. om Grønland 22: 520.—Roman, 1930. Ann. Mag. Nat. Hist. (10) 5: 282.—Roman, 1933. Skrift. om Svalbard og Ishavet 53: 6. ♂.

bimembris (Provancher). Atlantic to Cont. Divide in Transit. Zone.
Ichneumon bimembris Provancher, 1877. Nat. Canad. 9: 8. ♀.

bipunctatus (Cresson). Colo.
Ichneumon bipunctatus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 253. ♂.
Ichneumon festus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 257. ♂.

brevipennis (Cresson). Colo.
Ichneumon brevipennis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 174. ♀.

burkei (Viereck). Wis. Host: "Liparid" on *Pinus* sp.
Ichneumon (Cratichneumon) burkei Viereck, 1910. U. S. Natl. Mus. Proc. 38: 383. ♂.

caliginosus (Cresson). Atlantic to Cont. Divide in Transit. Zone. Hosts: *Basilarchia archippus* (Cram.); *Polygonia interrogationis* (F.); *P. satyrus* (Edw.); *Vanessa atalanta* (L.).
Ichneumon caliginosus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 144. ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 139.
Taxonomy: Howard, 1889. *In* Scudder, Butterflies of East. U. S., v. 3, p. 1876.

calitergus (Cresson). Maine, Mass., N. Y., Md., W. Va., Ont., Mich. Transit. Zone.
Ichneumon calitergus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 299. ♀.

canadensis (Cresson). Atlantic to Cont. Divide in Transit. Zone. Host: *Ctenucha virginica* (Charp.).
Ichneumon canadensis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 308. ♀.
Amblyteles ctenuchae Cushman, 1933. U. S. Natl. Mus. Proc. 82: 3. ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 139.—Townes, 1938. Ent. News 49: 219.

centrator (Say). Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: *Isia isabella* (A. and S.).
Ichneumon centrator Say, 1825. Amer. Ent. 2: 49. ♀.
Ichneumon flavicornis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 140. ♂.
Ichneumon fortis Provancher, 1875. Nat. Canad. 7: 24, 79. ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 139.—Townes, 1938. Ent. News 49: 219.
Taxonomy: Howard, 1902. The Insect Book, pl. 9, fig. 14.

cervulus (Provancher). Transcont. in Canad. Zone.
Ichneumon cervulus Provancher, 1875. Nat. Canad. 7: 24, 83. ♂.

cinctitarsis (Provancher). Que. to N. C., west to Mich. Host: Reported from *Hyphantria cunea* (Drury).
Ichneumon varipes Provancher, 1875. Nat. Canad. 7: 22, 50. ♂. Preocc.
Ichneumon cinctitarsis Provancher, 1877. Nat. Canad. 9: 7. N. name.
Biology: Smith, 1912. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 19: 45.

citrifrons (Cresson). Ont., N. Y., N. J., Pa., Md., Mich., Ill.
Ichneumon citrifrons Cresson, 1867. Amer. Ent. Soc. Trans. 1: 307. ♂.
Ichneumon tumidifrons Cresson, 1867. Amer. Ent. Soc. Trans. 1: 311. ♀. N. syn.

clarimontis (Cameron). Calif. (Claremont).
Ichneumon clarimontis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 241. ♂.

commodus (Davis). Wash., Utah.
Eurylabus commodus Davis, 1898. Amer. Ent. Soc. Trans. 24: 354. ♂.

compar (Cresson). B. C. (Vancouver Isl.).
Ichneumon compar Cresson, 1877. Amer. Ent. Soc. Trans. 6: 175. ♀.

contractus (Ashmead). Alaska.
Amblyteles contractus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 393. ♀.

creperus (Cresson). Atlantic to Cont. Divide in Transit. Zone.
Ichneumon creperus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 298. ♂.
Amblyteles (Pterocormus) footei Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 353, 357. ♂.

cupitus (Cresson). Calif.
Ichneumon cupitus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 175. ♂.
Taxonomy: Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 350.

curticrus (Provancher). Que. (Chicoutimi).
Phygadeuon curticrus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 360. ♀.

devinctor (Say.) Atlantic to Cont. Divide, mostly in Transit. Zone. Host: *Sthenopis thule* (Str.).
Ichneumon devinctor Say, 1825. Amer. Ent. 2: 48. ♀. ♀.
Ichneumon tibialis Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 300. ♀.
Ichneumon montivagus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 255. ♂.
Biology: Townes, 1938. Ent. News 49: 219.

difficilis (Cresson). Wash., Calif.
Ichneumon difficilis Cresson, 1877. Amer. Ent. Soc. Trans. 6: 176. ♂.
Taxonomy: Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 351.

discoensis (Fox). Greenland (Disco Isl.).
Ichneumon discoensis Fox, 1892. Acad. Nat. Sci. Phila. Proc., p. 134. ♂.

dorsalis (Cresson). Colo.
Ichneumon dorsalis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 177. ♀.

egregiafacialis (Viereck). Colo. (Manitou Park).
Ichneumon (Barichneumon) egregiafacialis Viereck, 1905. Kans. Acad. Sci. Trans. 19: 291. ♂.

faciens (Davis). Wash., Idaho, Alta.
Ichneumon faciens Davis, 1898. Amer. Ent. Soc. Trans. 24: 350. ♂.

feralis (Cresson). Mass., N. H., Que., Alta.
Ichneumon feralis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 301. ♀.
Biology: Procter, 1938. Biol. Survey Mt. Desert Region, v. 6, p. 408.

flavofacialis (Viereck). Colo. (Manitou Park).
Ichneumon (Probolus) flavofacialis Viereck, 1905. Kans. Acad. Sci. Trans. 19: 291. ♂.

funestus (Cresson). Atlantic to Cont. Divide in Transit. Zone. Host: *Cirphis unipuncta* (Haw.).
Ichneumon funestus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 166. ♀.
Ichneumon haesstans (as *hoesitans* on p. 80) Provancher, 1875. Nat. Canad. 7: 24, 80. ♀.
Biology: Knight, 1915. Jour. Econ. Ent. 8: 514–515.(misdet. as *I. laetus*).—Townes, 1938. Ent. News 49: 219.

fuscifrons (Cresson). Atlantic to Iowa in Transit. Zone.
Ichneumon fuscifrons Cresson, 1864. Ent. Soc. Phila. Proc. 3: 166. ♀.
Biology: Townes, 1938. Ent. News 49: 219.

glacialis (Ashmead). Alaska (Juneau).
Ichneumon glacialis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 154. ♂.

groenlandicus (Lundbeck). Greenland.
Ichneumon groenlandicus Lundbeck, 1897. Nat. For. København Vidensk. Medd. 1896: 223. ♀.

hemimelanarius (Viereck). Ariz. (Oak Creek Canyon at 6000 ft.).
Ichneumon hemimelanarius Viereck, 1906. Amer. Ent. Soc. Trans. 32: 226. ♂.

heterocampae (Cushman). Mass., N. Y., N. J., Md., Ohio. Host: *Heterocampa guttivitta* (Wlkr.).
Amblyteles heterocampae Cushman, 1933. U. S. Natl. Mus. Proc. 82: 2. ♀.
Biology: Townes, 1938. Ent. News 49: 219.

hiemalis (Cresson). Alaska (Aleutian Isl.).
Ichneumon hiemalis Cresson, 1877. Amer. Ent. Soc. Trans. 6: 180. ♀.
Taxonomy: Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 352.

hospitus (Cresson). Ill., "Canada."
Ichneumon hospitus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 306. ♂ ♀.

infidelis (Cresson). Conn.
Ichneumon infidelis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 296. ♂.

infucatus (Cresson). Colo.
Ichneumon infucatus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 252. ♂.

instabilis (Cresson). Atlantic to Cont. Divide in Transit. Zone; also Calif. Hosts: *Oeneis melissa* (F.); *Colias notatus* (Megerle).
Ichneumon instabilis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 303. ♂ ♀.
Amblyteles (Pterocormus) winkleyi Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 347, 348, 358. ♀.
Biology: Howard, 1888. Ent. Soc. Wash. Proc. 1: 95.

inurbanus (Cresson). W. Va., Colo.
Ichneumon inurbanus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 302. ♀.

jucundus (Brullé). Atlantic to Cont. Divide in Transit. and U. Austr. Zones. Hosts: *Cirphis unipuncta* (Haw.); *Crymodes devastator* (Brace); *Luperina stipata* (Morr.); *Macronoctua onusta* Grote; *Papaipema circumlucens* Sm.; *P. nebris* (Guen.).
Ichneumon jucundus Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 305. ♀.
Ichneumon flavizonatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 156. ♂.
Ichneumon multor Cresson, 1867. Amer. Ent. Soc. Trans. 1: 299. ♂.
Biology: Decker, 1931. Iowa Agr. Expt. Sta. Res. Bul. 143: 345.

klagesi (Viereck). Pa. (Allegheny Co.).
Ichneumon flavofacialis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 245. ♂. Preocc.
Ichneumon klagesi Viereck, 1912. U. S. Natl. Mus. Proc. 43: 591. N. name.

kodiakensis (Ashmead). Alaska (Kodiak).
Ichneumon kodiakensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 153. ♂.

lachrymans (Provancher). Atlantic to Cont. Divide in Canad. Zone.
Ichneumon lachrymans Provancher, 1875. Nat. Canad. 7: 24, 78. ♂.

laetus (Brullé). Atlantic to 100° W. in Transit. Zone. Records of *laetus* in literature include also males of *P. funestus* and others (misdet.). Hosts: *Hemerocampa leucostigma* (A. and S.); *Amathes c-nigrum* (L.); *Cirphis unipuncta* (Haw.).
Ichneumon laetus Brullé, 1846. Hist. Nat. Ins. Hym. v. 4, p. 303. ♂.
Ichneumon leucaniae Fitch, 1861. Boston Cultivator, Aug. 3, 23: 276. ♀.
Ichneumon seminiger Cresson, 1864. Ent. Soc. Phila. Proc. 3: 167. ♀.
Biology: Breakey, 1931. Ent. Soc. Amer. Ann. 24: 43.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 139.—Decker, 1935. Iowa State Col. Jour. Sci. 9: 573.—Townes, 1938. Ent. News 49: 219.
Taxonomy: Howard, 1902. The Insect Book, pl. 9, fig. 15.

lividulus (Provancher). Que.
Ichneumon lividulus Provancher, 1877. Nat. Canad. 9: 10. ♀.

longulus (Cresson). Colo.
Ichneumon longulus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 171. ♂.

maius (Cresson). Atlantic to Cont. Divide in Canad. Zone and cooler part of Transit. Zone. Hosts: *Euphydryas phaëton* (Drury); *Polygonia faunus* (Edw.); *Lycaena hypophlaeas* (Bdvl.)
Ichneumon maius Cresson, 1867. Amer. Ent. Soc. Trans. 1: 307. ♀.
Ichneumon versabilis Cresson, 1877. Amer. Ent. Soc. Trans. 6: 161. ♂.
Amblyteles (Pterocormus) brittoni Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 347, 348, 358. ♀.
Biology: Howard, 1889. *In* Scudder, Butterflies of East. U. S., v. 3, p. 177.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 140.—Townes, 1938. Ent. News 49: 219.

mendax (Cresson). Atlantic to 100° W. in Transit. and U. Austr. Zones.
Ichneumon mendax Cresson, 1877. Amer. Ent. Soc. Trans. 6: 149. ♀.
Phygadeuon Guignardi Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 50. ♀.
Biology: Brimley, 1938. Ins. of N. C., p. 404.

neutralis (Cresson). Calif.

Ichneumon odiosus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 145. ♂.
Ichneumon neutralis Cresson, 1877. Amer. Ent. Soc. Trans. 6: 149. ♂.

nigratorius (Fabricius). "North America."
Ichneumon nigratorius Fabricius, 1804. Systema Piezatorum, p. 55.
Taxonomy: Trentepol, 1829. Isis von Oken 22: 807.

nigrotergus (Davis). S. Dak. (Custer).
Ichneumon nigrotergus Davis, 1898. Amer. Ent. Soc. Trans. 24: 350. ♀.

nigrovariegatus (Provancher). Maine and Que. to S. C.
Phygadeuon dorsalis Provancher, 1874. Nat. Canad. 6: 285. ♀. Preocc.
Ichneumon humilis Provancher, 1875. Nat. Canad. 7: 24, 82. "♂" = ♀. Preocc.
Phygadeuon nigrovariegatus Provancher, 1875. Nat. Canad. 7: 182, 183. ♀.
Ichneumon humillimus Dalla Torre, 1902. Cat. Hym., v. 3, p. 923. N. name for *P. dorsalis*.

ormsbyensis (Cameron). Nev. (Ormsby Co.).
Pseudamblyteles ormsbyensis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 242. ♂.

parvus (Cresson). Que., Ont., Ohio, Ill., Mo.
Ichneumon parvus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 159. ♂.
Ichneumon xanthopsis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 390. ♂.
Ichneumon xanthropus Fyles, 1916. Ent. Soc. Ontario Ann. Rpt. 46: 56. *Lapsus* for *I. xanthopsis*.

patroclus (Viereck). N. Mex. (Beulah).
Cratichneumon patroclus Viereck, 1903. Amer. Ent. Soc. Trans. 29: 77. ♂.

pedalis (Cresson). Sask., Alta., Colo.
Ichneumon pedalis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 141. ♂.

pictifrons (Cresson). Colo., Alta.
Ichneumon pictifrons Cresson, 1864. Ent. Soc. Phila. Proc. 3: 160. ♂.

placidus (Provancher). Que., N. Y., Ohio, Alta.
Ichneumon placidus Provancher, 1875. Nat. Canad. 7: 23, 76. ♂.

popofensis (Ashmead). Alaska, Alta.
Ichneumon popofensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4:154. ♂.

procax (Cresson). "Canada."
Ichneumon procax Cresson, 1877. Amer. Ent. Soc. Trans. 6: 170. ♂.

purpuripennis (Cresson). Calif.
Ichneumon purpuripennis Cresson, 1877. Amer. Ent. Soc. Trans. 6: 175. ♀.
Taxonomy: Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 350.

putus (Cresson). Atlantic to 100° W. in Transit and U. Austr. Zones. Host: *Itame sulphurea* (Pack.).
Ichneumon putus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 173. ♀.

quadrizonatus (Viereck). Conn., N. Y., Alta.
Amblyteles (Pterocormus) quadrizonatus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 352, 357. ♂.

restrictus (Cresson). N. Y.
Ichneumon restrictus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 169. ♂.

rufiventris (Brullé). Transcont. in Canad. and Transit. Zones. Hosts: *Nymphalis milberti* (Godt.); *Polygonia comma* (Harr.); *Vanessa cardui* (L.); *V. virginiensis* (Drury).
Ichneumon rufiventris Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 301. ♂ ♀.
Ichneumon semicoccineus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 179. ♂.
Ichneumon hunterae Packard, 1881. Boston Soc. Nat. Hist. Proc. 21: 22. ♂ ♀.
Ichneumon vulviventris Nason, 1905. Ent. News 16: 148. Apparently a *lapsus* for *I. rufiventris*.
Taxonomy: Howard, 1889. *In* Scudder, Butterflies of East. U. S., v. 3, p. 1875.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 140.

rufiventris var. **incertus** (Cresson). Transcont. in Canad. and Transit. Zones.
Ichneumon incertus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 180. ♀.
Ichneumon californicus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 180. ♂.

seditiosus (Cresson). Colo.
Ichneumon seditiosus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 172. ♀.

similaris (Provancher). Que., Wash., Alaska.
Ichneumon similaris Provancher, 1875. Nat. Canad. 7: 26. ♂.
Automalus nigropilosus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 148. ♂.

stygicus (Cresson). Que., Mass., N. Y.
Ichneumon signatipes Provancher, 1875. Nat. Canad. 7: 22, 52. ♀. Preocc.
Ichneumon stygicus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 151. N. name.

subdolus (Cresson). N. S. and Que. to N. C. Host: *Hydroecia immanis* Guen.
Ichneumon subdolus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 298. ♀.

subrestrictus (Viereck). M. Mex. (Beulah).
Cratichneumon restrictus var. *subrestrictus* Viereck, 1903. Amer. Ent. Soc. Trans. 29: 76. ♂.

terminatus (Provancher). Que. (Cap Rouge).
Phygadeuon terminatus Provancher, 1882. Nat. Canad. 13: 335, 357. ♀.

trizonatus (Provancher). Atlantic to Sask. in Canad. Zone.
Ichneumon trizonatus Provancher, 1877. Nat. Canad. 9: 8. ♂.

truculentus (Cresson). N. H. (White Mts.).
Ichneumon truculentus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 150. ♀.

ultimus (Cresson). N. H., Mass., N. Y., N. J., Pa.
Ichneumon ultimus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 178. ♀.
Biology: Townes, 1938. Ent. News 49: 219.

unalaskae (Ashmead). Alaska (Unalaska).
Stenichneumon unalaskae Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 148. ♂.

uncinatus (Cresson). Alta.
Ichneumon uncinatus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 159. ♀.

vecors (Cresson). Hudson Bay Territory.
Ichneumon ventralis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 308. ♀. Preocc.
Ichneumon vecors Cresson, 1877. Amer. Ent. Soc. Trans. 6: 172. N. name.

vicinus (Cresson). Ill.
Ichneumon vicinus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 169. ♀.

vinulentus (Cresson). Wash., Wyo., Colo.
Ichneumon vinulentus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 162. ♂.

vivax (Cresson). N. H.
Ichneumon vivax Cresson, 1877. Amer. Ent. Soc. Trans. 6: 178. ♀.

volesus (Cresson). Mass., N. Y., Sask., Alta.
Ichneumon volesus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 304. ♀.

zelotypus (Cresson). N. Y., W. Va., Mich., Alta.
Ichneumon zelotypus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 299. ♂.

Tribe ICHNEUMONINI

Genus ICHNEUMON Linnaeus

Ichneumon Linnaeus, 1758. Syst. Nat., ed. 10, p. 343, 560.
Type: *Ichneumon comitator* Linnaeus. Desig. by Curtis, 1839.
Coelichneumon Thompson, 1893. Opusc. Ent., fasc. 18, p. 1901.
Type: *Ichneumon lineator* Gravenhorst. Desig. by Ashmead, 1900.
Aglaojoppa Cameron, 1901. Ann. Mag. Nat. Hist. (7) 7: 381.
Type: *Aglaojoppa flavomaculata* Cameron. Monob.
Cyanojoppa Cameron, 1902. Ztschr. System. Hym. Dipt. 3: 398.

Type: ***Cyanojoppa rufo-femorata*** Cameron. Desig. by Viereck, 1914.
Revision: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 130–185.

Many authors (including the present ones) have believed that Latreille designated genotypes in his 1810 "Considerations général sur l'ordre naturel des crustacés, des arachnides, et des insectes." A recent examination of the literature has convinced the authors of this section of the catalog that in this work Latreille was only citing zoological generic examples and not nomenclatorial genotypes. The evidence in support of this view seems abundant and clear, whereas in support of the view that he was designating nomenclatorial genotypes there is only the word "type" in the title to Latreille's list: "Table des genres avec l'indication de l'espèce qui leur sert de type". Stebbing (1898, Natural Science 12: 239–244) has examined Latreille's so-called type designations in the cases of some of the Crustacea and shows that Latreille was often careful to show which section of a genus he considered the nomenclatorially typical section, but in his list of "types," was not concerned with selecting a species from the section of the genus designated as nomenclatorially typical. The list of cases Stebbing cites could be lengthened by examination of other groups. In his later works, when such a genus was subdivided, Latreille applied the original generic name to the section he had designated as typical rather than to the section containing the "type" of his list. In other words, Latreille's "types" of the 1810 list were to him only zoological examples of the genera and had no bearing on the application of the generic names.

This question has a bearing on the genotype and application of the name *Ichneumon*, and consequently on the subfamily names *Ichneumoninae* and *Pimplinae*—whether the subfamily names will be applied as traditionally or according to the "type" of *Ichneumon* (*Ichneumon manifestator*) in Latreille's 1810 list. For proof of Latreille's intention in this regard, consult the following references: Latreille, 1807. Genera Crustaceorum et Insectorum v. 3, p. 6–8.—Latreille, 1910. Considerations général sur l'ordre naturel des crustacés, des arachnides et des insectes, pp. 299–300, 436.—Latreille, 1825. Familles naturelles du règne animal, p. 445.—Latreille, 1829. Les crustacés, les arachnides, et les insectes v. 2, pp. 285–288.

The International Commission on Zoological Nomenclature has attempted in its "Opinions" to apply the names *Ichneumon*, *Pimpla*, *Ephialtes*, and *Cryptus* by edict. The methods of the Commission in these cases are admittedly not those of recognized nomenclatorial principles applied to bibliographic facts, and are therefore of a system foreign to that the authors have used throughout the family.

ater Cresson. N. Y., N. C., Mich., Ill., Alta., Wash.
Ichneumon ater Cresson, 1864. Ent. Soc. Phila. Proc. 3: 138. ♀.

azotus Cresson. Atlantic to 100° W. in U. Austr. Zone.
Ichneumon azotus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 150. ♂.
Ichneumon agnitus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 151. ♀.

barnstoni (Morley), n. comb. Hudson Bay.
Coelichneumon barnstoni Morley, 1915. Rev. Ichn. Brit. Mus., v. 4, p. 130. ♂ ♀.

brunneri Rohwer. Mont., Utah.
Ichneumon brunneri Rohwer, 1914. Ent. Soc. Wash. Proc. 15: 180. ♂ ♀.

caeruleus Cresson. Atlantic to Cont. Divide in Canad., Transit., and U. Austr. Zones. Hosts: *Paraphia piniata* Pack.; *Hemerocampa leucostigma* (A. and S.); *Achatodes zeae* (Harr.); *Isia isabella* (A. and S.).
Ichneumon caeruleus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 149. ♀.
Biology: Riley, 1880. Amer. Ent. 3: 124—Howard, 1897. U. S. Dept. Agr., Div. Ent. Tech. Ser. 5: 30.—Balduf, 1929. Ohio Jour. Sci. 29: 226.—Breakey, 1930. Ent. Soc. Amer. Ann. 23: 187.

chalybaeus Cresson. Mass.
Ichneumon chalybaeus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 146. ♀.

germanus Cresson. N. H., Mass., N. Y., Va.
Ichneumon germanus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 143. ♀.
Ichneumon citimus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 144. ♂.

histricus Cresson. W. Va.
Ichneumon histricus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 294. ♂.

jejunus (Cresson). Atlantic to 100° W. in Transit and U. Austr. Zones.
Ischnus jejunus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 186. ♂.
Ichneumon apertus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 293. ♀.

maurus Cresson. R. I. and N. Y. to Ga.
Ichneumon maurus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 135. ♀.

navus Say. Atlantic to Ill. in Transit. and U. Austr. Zones.
Ichneumon navus Say, 1836. Boston Jour. Nat. Hist. 1: 229. ♂ ♀.
Ichneumon cinctipes Provancher, 1875. Nat. Canad. 7: 22, 51. ♀.

nigraticolor (Viereck), n. comb. Que., R. I., Conn., Mich.
Amblyteles (*Chasmias*?) *nigraticolor* Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 344, 355. ♀.

orpheus Cresson. N. Y., Pa., Md., Ohio, B. C.
Ichneumon orpheus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 136. ♀.

otiosus Say. Que. to N. C., west to Ill.
Ichneumon otiosus Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 69. ♀.
Taxonomy: Say, 1836. Boston Jour. Nat. Hist. 1: 228.

pepticus Cresson. Ill., N. J.
Ichneumon pepticus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 148. ♂.

pequoitorum (Viereck), n. comb. N. H., Conn., N. Y., Mich.
Amblyteles (*Chasmias*?) *pequoitorum* Viereck, 1917 (1916) Conn. State Geol. and Nat. Hist. Survey Bul. 22: 345, 355. ♀.

pervagus Cresson. "Canada."
Ichneumon pervagus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 148. ♂.

pulcher Brullé. R. I. and N. Y. to La.
Ichneumon pulcher Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 304. ♀. (♂ misdet.).

sassacus (Viereck), n. comb. R. I., Conn., N. Y., Md., Calif.
Amblyteles (*Coelichneumon*) *sassacus* Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 349, 360. ♀.

semilaevis Cresson. Colo.
Ichneumon semilaevis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 142. ♀.

solutus occidentalis (Roman), n. comb. Greenland, northern Europe. *I. solutus solutus* Holmgren is European.
Coelicheumon solutus occidentalis Roman, 1934. Ann. Mag. Nat. Hist. (10) 14: 606. ♂.

viola Cresson. Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: *Catocala* sp.
Ichneumon viola Cresson, 1864. Ent. Soc. Phila. Proc. 3: 137. ♀.
Ichneumon vittifrons Cresson, 1864. Ent. Soc. Phila. Proc. 3: 143. ♂.
Ichneumon recens Cresson, 1877. Amer. Ent. Soc. Trans. 6: 153. ♂.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 140.

vitalis Cresson. N. Y., N. J., Pa.
Ichneumon vitalis Cresson, 1877. Amer. Ent. Soc. Trans. 6: 149. ♀.

Genus PROTICHNEUMON Thomson

Protichneumon Thomson, 1893. Opusc. Ent., fasc. 18, p. 1899.
Type: *Ichneumon fusorius* Linnaeus. Desig. by Ashmead, 1900.

grandis (Brullé). Transcont. in Canad., Transit., and U. Austr. Zones.
Ichneumon grandis Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 300. ♀.
Ichneumon ambiguus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 161. ♀.
Ichneumon regnatrix Cresson, 1864. Ent. Soc. Phila. Proc. 3: 178. ♀.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 173. ♂ ♀.
Morphology: Snodgrass, 1941. Smithsonian Misc. Coll. 99 (14): 33, 34.

Genus AMBLYJOPPA Cameron

Amblyjoppa Cameron, 1902. Entomologist 35: 108.
Type: *Amblyjoppa rufo-balteata* Cameron. Monob.
Hadrojoppa Cameron, 1902. Ztschr. System. Hym. Dipt. 2: 396.
Type: *Hadrojoppa annulitarsis* Cameron. Monob.

magna (Cresson). Colo.
Ichneumon magnus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 258. ♂.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 191. ♂.

Tribe TROGINI

Species of *Trogus* and of *Macrojoppa* are parasites of Papilionidae. The rest of the genera attack Sphingidae.

Revision: Hopper, 1939. Amer. Ent. Soc. Trans. 65: 307–346.

Genus CATADELPHUS Wesmael

Catadelphus Wesmael, 1854. Acad. Sci. Belg. Bul. sup., p. 134.
Type: *Ichneumon arrogator* Fabricius. Monob.
Revision: Hopper, 1939. Amer. Ent. Soc. Trans. 65: 341–343.

atrox (Cresson). Mont., S. Dak., Kans., Tex., Wyo., Colo., Calif.
Trogus atrox Cresson, 1868. Amer. Ent. Soc. Trans. 2: 92. ♀.

atrox var. **marginipennis** (Cresson). Dakota Territory, Wyo., Kans., N. Mex.
Trogus marginipennis Cresson, 1868. Amer. Ent. Soc. Trans. 2: 93. ♂.

buccatus (Cresson). B. C., Wash., Oreg., Calif., Nev.
Trogus buccatus Cresson, 1877. Amer. Ent. Soc. Trans. 6: 199. ♀.

semiruber Hopper. Ont. (Nipigon).
Catadelphus semiruber Hopper, 1939. Amer. Ent. Soc. Trans. 65: 342. ♀.

Genus GNAMPTOPELTA Hopper

Gnamptopelta Hopper, 1939. Amer. Ent. Soc. Trans. 65: 333.
Type: *Trogus obsidianator* Brullé. Orig. desig.
Revision: Hopper, 1939. Amer. Ent. Soc. Trans. 65: 333–335.

obsidianator austrina (Cresson), n. status. N. C., S. C., Ga., Fla. in L. Austr. Zone.
Trogus austrinus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 92. ♂ ♀.

obsidianator obsidianator (Brullé). Atlantic to Cont. Divide in Transit., U. Austr., and parts of L. Austr. Zones.
Trogus obsidianator Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 299. ♀.

Genus TRICYPHUS Kriechbaumer

Tricyphus Kriechbaumer, 1898. Ent. Nachr. 24: 4, 30.
Type: *Tricyphus cuspidiger* Kriechbaumer. Desig. by Viereck, 1914.
Revision: Hopper, 1939. Amer. Ent. Soc. Trans. 65: 335–339.

apicalis (Cresson). Atlantic to Ill. in U. Austr. and L. Austr. Zones. Host: *Sphinx kalmiae* A. and S.

Trogus apicalis Cresson, 1877. Amer. Ent. Soc. Trans. 6: 197. ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 138.

ater Hopper. Ill. (Oakwood).
Tricyphus ater Hopper, 1939. Amer. Ent. Soc. Trans. 65: 339. ♂.

elegans elegans (Cresson). Atlantic to Ill. in Transit. Zone.
Trogus elegans Cresson, 1868. Amer. Ent. Soc. Trans. 2: 94. ♀.

elegans vulpinus Szépligeti. Atlantic to 100° W. in U. Austr. Zone. Host: *Ampeloeca myron* (Cram.).
Tricyphus vulpinus Szépligeti, 1900. Termès. Füzetek, 23: 288. ♀.

Genus CONOCALAMA Hopper

Revision: Hopper, 1939. Amer. Ent. Soc. Trans. 65: 319–331.

Subgenus TMETOGASTER Hopper

Tmetogaster Hopper, 1939. Amer. Ent. Soc. Trans. 65: 321.
Type: ***Trogus nubilipennis*** Haldeman. Orig. desig.

nubilipennis (Haldeman). Mass. to Ga., west to Ill. Hosts: *Ampeloeca* sp., *Sphecodina abbottii* (Swains.).
Trogus nubilipennis Haldeman, 1846. Acad. Nat. Sci. Phila. Proc. 3: 127.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 138.

Subgenus CONOCALAMA Hopper

Conocalama Hopper, 1939. Amer. Ent. Soc. Trans. 63: 319.
Type: ***Trogus brullei*** Cresson. Orig. desig.

brullei (Cresson). Atlantic to Cont. Divide in U. Austr. Zone.
Trogus Brullei Cresson, 1877. Amer. Ent. Soc. Trans. 6: 196. ♂ ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 138.

copei (Cresson). Atlantic to Cont. Divide in Transit. and U. Austr. Zones. Host: *Paonias myops* (A. and S.).
Trogus copei Cresson, 1868. Amer. Ent. Soc. Trans. 2: 94. ♂.
Trogus canadensis Provancher, 1877. Nat. Canad. 9: 2. ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 138.

copei var. **nigrocinctus** (Hasey). Mass., N. Y., Pa. Host: *Paonias myops* (A. and S.).
Trogus nigrocinctus Hasey, 1925. Ent. News 36: 306. ♂.

fuscalata Hopper. N. Y., Pa.
Conocalama (Conocalama) fuscalata Hopper, 1939. Amer. Ent. Soc. Trans. 65: 330. ♂ ♀.

galbinata Hopper. N. Mex. (Organ Mts.).
Conocalama (Conocalama) galbinata Hopper, 1939. Amer. Ent. Soc. Trans. 65: 328. ♂.

occidentalis bolteri (Cresson). Transcont. in Canad. Zone.
Trogus bolteri Cresson, 1868. Amer. Ent. Soc. Trans. 2: 94. ♂.
Trogus quebecensis Provancher, 1874. Nat. Canad. 6: 335. ♀.
Taxonomy: Washburn, 1918. Minn. State Ent. Ann. Rpt. 17: 148, 172, 173.

occidentalis mellosa (Cresson). Colo., N. Mex.
Trogus mellosus Cresson, 1875. Rpt. Wheeler Expl. (Eng. Dept. U. S. Army), Zool. v. 5, p. 708. "♂" = ♀.

occidentalis occidentalis (Cresson). Dakota Territory, Oreg., Calif.
Trogus occidentalis Cresson, 1868. Amer. Ent. Soc. Trans. 2: 93. ♂.

occidentalis occidentalis var. **luteata** Hopper. Alaska, B. C., Alta., Wash.
Conocalama (Conocalama) occidentalis occidentalis var. ***luteata*** Hopper, 1939. Amer. Ent. Soc. Trans. 65: 326. ♂ ♀.

rileyi (Cresson). Ill., S. Dak., Nebr., Kans.
Trogus rileyi Cresson, 1868. Amer. Ent. Soc. Trans. 2: 95. ♀.

violipennis Hopper. Calif.
Conocalama (*Conocalama*) ***violipennis*** Hopper, 1939. Amer. Ent. Soc. Trans. 65: 327. ♂ ♀.

Genus MACROJOPPA Kriechbaumer

Macrojoppa Kriechbaumer, 1898. Ent. Nachr. 24: 2, 21.
Type: ***Trogus blandita*** Cresson. Desig. by Ashmead, 1900.
Aglaojoppidea Viereck, 1913. U. S. Natl. Mus. Proc. 46: 368.
Type: ***Trogus fascipennis*** Cresson. Orig. desig.

fascipennis (Cresson). Tex.
Trogus fascipennis Cresson, 1877. Amer. Ent. Soc. Trans. 6: 195. ♀.
Trogus fasciipennis Dalla Torre, 1902. Cat. Hym., v. 3, p. 1033. Emend.
Taxonomy: Hopper, 1939. Amer. Ent. Soc. Trans. 65: 314.

Genus TROGUS Panzer

Trogus Panzer, 1806. Krit. Rev. Insektenf. Deutschlands, v. 2, p. 80.
Type: (***Ichneumon coerulator*** Fabricius) = [***Ichneumon***] ***lapidator*** var. ***coerulator*** (Fabricius). Monob.
Dinotomus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 188.
Type: (***Ichneumon coerulator*** Fabricius) = [***Ichneumon***] ***lapidator*** var. ***coerulator*** (Fabricius). Desig. by Viereck, 1914.
Psilomastax Tischbein, 1868. Stettin. Ent. Ztg. 29: 255.
Type: (***Psilomastax pyramidalis*** Tischbein) = [***Ichneumon***] ***lapidator*** var. ***coerulator*** (Fabricius). Monob.
Revision: Hopper, 1939. Amer. Ent. Soc. Trans. 65: 314–318.

edwardsii Cresson. B. C., Wash., Idaho. Host: *Papilio eurymedon* Luc.
Trogus Edwardsii Cresson, 1877. Amer. Ent. Soc. Trans. 6: 195. ♂.
Trogus Fletcherii Harrington, 1894. Canad. Ent. 26: 245. "♀" = ♂.

flavipennis Cresson. Colo., N. Mex., Utah., Ariz.
Trogus flavipennis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 287. ♂.

fulvipes Cresson. Atlantic to Cont. Divide in Canad. Zone. Hosts: *Papilio eurymedon* Luc., *P. glaucus* L.
Trogus fulvipes Cresson. 1868. Amer. Ent. Soc. Trans. 2: 93. ♂.
Trogus apicatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 352. ♂.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 138.

pennator (Fabricius). Atlantic to 100° W. in Transit., U. Austr., and L. Austr. Zones; also Wash., Oreg., Calif., Nev. Hosts: *Vanessa cardui* (L.); *Pieris rapae* (L.); *Papilio ajax* L.; *P. brevicauda* Saund.; *P. eurymedon* Luc.; *P. glaucus* L.; *P. marcellus* L.; *P. rutulus* Luc.; *P. troilus* L.; *P. zelicaon* Luc.
Ichneumon pennator Fabricius, 1793. Ent. System., v. 2, p. 155.
Trogus vulpinus Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 389.
Trogus exesorius Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 298. ♂ ♀.
Ichneumon asteriae Jaeger, 1859. Life of N. Amer. Ins., p. 240.
Macrojoppa californica Cameron, 1911. Soc. Ent. 26: 35.
Biology: Clarkson, 1883. Canad. Ent. 15: 162.—Weed, 1888. Psyche 5: 52.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 138.—Smith, 1946. The Nature Mag. 39: 15.

Subfamily BANCHINAE (=LISSONOTINAE)

Members of this subfamily are internal parasites of caterpillars.

Tribe GLYPTINI

Genus GLYPTA Gravenhorst

Glypta Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 3.
Type: ***Glypta sculpturata*** Gravenhorst. Desig. by Westwood, 1839.
Conoblasta Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 165.
Type: ***Pimpla ceratites*** Gravenhorst. Desig. by Viereck, 1914.
Diblastomorpha Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 165.

Type: ***Glypta bicornis*** Boie. Included by Woldstedt, 1877.
Hemiephialtes Ashmead, 1906. U. S. Natl. Mus. Proc. 30: 177.
Type: ***Hemiephialtes glyptus*** Ashmead. Monob.
Zaglyptomorpha Viereck, 1913. U. S. Natl. Mus. Proc. 46: 385.
Type: ***Zaglyptomorpha attenuata*** Viereck. Orig. desig.
Revision: Cresson, 1870. Amer. Ent. Soc. Trans. 3: 151–159.

Members of this genus are parasites of caterpillars in twigs, weed stems, leaf rolls, and similar habitats.

albiscutellaris Walsh. ?Ill.
Glypta albiscutellaris Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 127. ♂.

animosa Cresson. Conn. to N. C., west to Mich. Host: Reported from *Polychrosis viteana* (Clem.).
Glypta animosa Cresson, 1870. Amer. Ent. Soc. Trans. 3: 154. ♀.
Biology: Slingerland, 1904. Cornell Univ. Agr. Expt. Sta. Bul. 223: 52.

aprilis Viereck. Kans. (Douglas Co.).
Glypta aprilis Viereck, 1905. Kans. Acad. Sci. Trans. 19: 316. ♀.

areolata Viereck. N. Mex. (Beulah).
Glypta areolata Viereck, 1903. Amer. Ent. Soc. Trans. 29: 88. ♀.

borealis Cresson. "Canada."
Glypta borealis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 158. ♂.

brunneisigna Viereck. Kans. (Douglas Co.).
Glypta brunneisigna Viereck, 1905. Kans. Acad. Sci. Trans. 19: 316. ♀.

californica Provancher. Calif.
Glypta Californica Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 117. ♀.

canadensis Cresson. Que., Maine, N. H., Vt., N. Y., Pa., Mich. Mostly in Canad. Zone.
Glypta canadensis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 157. ♀.

caulicola Cushman. N. J., Va., Ohio, Tex. Hosts: *Gnorimoschema gallaesolidaginis* (Riley); *Epiblema scudderiana* (Clem.).
Glypta caulicola Cushman, 1933. U. S. Natl. Mus. Proc. 82 (14): 9. ♂ ♀.

dakota Cresson. "Dakota."
Glypta Dakota Cresson, 1870. Amer. Ent. Soc. Trans. 3: 158. ♀.

davisii Dalla Torre. Idaho (Moscow).
Glypta longicauda Davis, 1898. Amer. Ent. Soc. Trans. 24: 370. ♀. Preocc.
Glypta davisii Dalla Torre, 1901. Cat. Hym. v. 3, p. 410. N. name.

divaricata (Say). Fla.
Anomalon divaricatus Say, 1836. Boston Jour. Nat. Hist. 1: 244.
Taxonomy: Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 155.

diversipes Walsh. ?Ill.
Glypta diversipes Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 125. ♀.

egregiafovea Viereck. Ariz. (Oak Creek Canyon at 6000 ft.).
Glypta egregiafovea Viereck, 1905. Kans. Acad. Sci. Trans. 19: 292. ♀.

erratica Cresson. Atlantic to 100° W. in Transit. and U. Austr. Zones.
Glypta erratica Cresson, 1870. Amer. Ent. Soc. Trans. 3: 152. ♂ ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Publ. 188: 142.

evetriae Cushman. Oreg., Mont. Host: *Barbara colfaxiana taxifoliella* (Busck).
Glypta evetriae Cushman, 1917. U. S. Natl. Mus. Proc. 53: 469. ♂ ♀.

exartemae Walley. Ont., N. Y. Host: *Exartema viburnana* McD.
Glypta exartemae Walley, 1934. Canad. Ent. 66: 235. ♂ ♀.

fumiferanae (Viereck). Que., B. C., Wash., Idaho, Calif. Hosts: *Choristoneura fumiferana* (Clem.); *Hemerocampa pseudotsugata* McD.
Conoblasta fumiferanae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 148. ♂ ♀.
Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 245, 246, 248, 249, 251.

idahoensis Davis. Idaho.

Glypta idahoensis Davis, 1898. Amer. Ent. Soc. Trans. 24: 370. ♀.

impressa Davis. Transcont. in Transit. Zone.
Glypta impressa Davis, 1898. Amer. Ent. Soc. Trans. 24: 371. ♂ ♀.

infumata Walley. Alta., Que.
Glypta infumata Walley, 1934. Canad. Ent. 66: 236. ♀.

inversa Cresson. Mass., R. I., N. Y.
Glypta inversa Cresson, 1870. Amer. Ent. Soc. Trans. 3: 153. ♀.

kukakensis Ashmead. Alaska (Kukak Bay).
Glypta kukakensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 201. ♀.

longiventris Cresson. Que., N. Y., Ill.
Glypta longiventris Cresson, 1870. Amer. Ent. Soc. Trans. 3: 154. ♂.

macra Cresson. Que., N. Y., Colo., Alta.
Glypta macra Cresson, 1870. Amer. Ent. Soc. Trans. 3: 158. ♀.
Glypta coloradensis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 158. ♂.
Glypta ruficornis Provancher, 1873. Nat. Canad. 5: 473. ♂. Preocc. Taxonomy: Provancher, 1880. Nat. Canad. 12: 68.

militaris Cresson. Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: *Proteoteras aesculana* Riley.
Glypta militaris Cresson, 1870. Amer. Ent. Soc. Trans. 3: 154. ♀.

monita Cresson. W. Va.
Glypta monita Cresson, 1870. Amer. Ent. Soc. Trans. 3: 155. ♀.

mutica Cushman. Conn. to N. C., west to Mich. Host: *Polychrosis viteana* (Clem.).
Glypta mutica Cushman, 1919. U. S. Natl. Mus. Proc. 55: 540. ♂ ♀.

nomene Davis. N. Y., Colo.
Glypta nomene Davis, 1898. Amer. Ent. Soc. Trans. 24: 370. ♀.

phoxopteridis Weed. Atlantic to 100° W. in U. Austr. and L. Austr. Zones. Also B. C. Hosts: *Amorbia humerosana* Clem.; *Ancylis comptana* (Froel.); *Grapholitha interstinctiana* (Clem.); *G. molesta* (Busck).
Glypta phoxopteridis Weed, 1888. Ent. Amer. 4: 151. ♀.
Glypta leucozonata Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 449. ♂.

popofensis Ashmead. Alaska (Popof Isl.).
Glypta popofensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 201. ♂ ♀.

pulchripes Cresson. W. Va.
Glypta pulchripes Cresson, 1870. Amer. Ent. Soc. Trans. 3: 135. ♀.

rubripes Cresson. Atlantic to Cont. Divide in Transit. and U. Austr. Zones. Host: Reported from *Exartema footianum* (Fern.).
Glypta rubripes Cresson, 1870. Amer. Ent. Soc. Trans. 3: 156. ♂ ♀.

ruficornis Walsh. ?Ill.
Glypta ruficornis Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 129. ♂.

rufipleuralis Walsh. ?Ill.
Glypta rufipleuralis Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 125. ♂.

rufiscutellaris Cresson. Atlantic west to Alta. and Utah in Transit. and U. Austr. Zones. Hosts: *Argyrotoza semipurpurana* (Kearf.); *Ancylis comptana* (Froel.); *Carpocapsa pomonella* (L.); *Epiblema obfuscana* (Dyar); *E. scudderiana* (Clem.); *E. sirenuana* (Wlkr.); ?*Epinotia laracana* (Kearf.); *Grapholitha molesta* (Busck); *G. packardii* (Zell.); *G. prunivora* (Walsh); *Laspeyresia caryana* (Fitch); *Melissopus latiferreanus* (Wlsm.); *Proteoteras aesculana* Riley. Parasites: *Eupelmus* sp.: *Eurytoma* sp.
Glypta rufiscutellaris Cresson, 1870. Amer. Ent. Soc. Trans. 3: 153. ♂ ♀.
Glypta brevis Cushman, 1915. U. S. Natl. Mus. Proc. 48: 510. ♀.
Biology: Stearns, 1927. N. J. Agr. Expt. Sta. Cir. 208: 8.—Stearns, 1928. N. J. Agr. Expt. Sta. Bul. 460: 5, 6, 18, 19, 24.—McConnell, 1928. Md. Agr. Expt. Sta. Bul. 298: 180.—Peterson, 1929. Ent. Soc. Ontario Ann. Rpt. 59: 85.—Daniel, 1929. Amer. Agr. 124: 361, 369.—Steenburgh, 1929. Ent. Soc. Ontario Ann. Rpt. 60: 126.—Garman, 1929. Conn. Agr. Expt. Sta. Bul. 305: 734.—Garman, 1930. Conn. Agr. Expt. Sta. Bul. 313: 436, 441.—Driggers, 1930. N. J. Agr. Expt. Sta. Bul. 510: 7–13, 16–17.—

Haeussler, 1930. Jour. Agr. Res. 41: 368, 371, 372, 376.—Driggers, 1931. N. J. Agr. Expt. Sta. Ann. Rpt. 51: 158–159.—Crawford, 1933. N. Y. Agr. Expt. Sta. Bul. 217: 1–29.—Merritt, 1933. Mich. Agr. Expt. Sta. Quart. Bul. 15: 225–226.—Merritt, 1933. Midwest Fruitman Aug.-Sept. 1933: 8.—Merritt, 1933. Jour. Econ. Ent. 26: 788–792.—Pepper and Driggers, 1934. Ent. Soc. Amer. Ann. 27: 594–596.—Putman, 1935. Canad. Ent. 67: 46–48.—Steenburgh, 1935. Ent. Soc. Ontario Ann. Rpt. 65: 69–72.—Haden, 1935. Univ. Del. Agr. Expt. Sta. Bul. 194: 11–42.—Montgomery, 1935. Jour. Econ. Ent. 28: 371–376.—Steenburgh, 1936. Ent. Soc. Ontario Ann. Rpt. 66: 15–16.—Schoene, 1936. Va. Fruit 24: 115.—Steenburgh and Boyce, 1938. Ent. Soc. Ontario Ann. Rpt. 69: 72.—Driggers, 1938. North Central States Ent. Proc. Ann. Meeting 17: 60.—Allen, Holloway and Haeussler, 1940. U. S. Dept. Agr. Cir. 561: 12, 51.

Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 245, 246, 248, 249, 251.

rufofasciata Cresson. Que., Ont., Maine, R. I., Conn., N. Y., Ill. Host: *Amelia clemensiana* (Fern.).

Glypta rufofasciata Cresson, 1870. Amer. Ent. Soc. Trans. 3: 158. ♂.

Taxonomy: Provancher, 1880. Nat. Canad. 12: 68. ♂ ♀.

simplicipes Cresson. Atlantic west to B. C., Idaho, and Utah in Transit. and U. Austr. Zones. Hosts: *Archips argyrospila* (Wlkr.); *A. rosaceana* (Harr.); *Acleris minuta* (Rob.); *A. minuta cinderella* (Riley); *Exartema footianum* (Fern.); *E. inornatanum* Clem.; *Ennomos subsignarius* (Hbn.); *Malacosoma americanum* (F.); *Heterocampa bilineata* (Pack.); *Zotheca tranquilla* Grote; *Hemileuca* sp.

Glypta simplicipes Cresson, 1870. Amer. Ent. Soc. Trans. 3: 156. ♂ ♀.

Glypta aldrichii Davis, 1898. Amer. Ent. Soc. Trans. 24: 370. ♂ ♀.

Glypta (Glypta) rosaceanae Viereck, 1926. Canad. Ent. 58: 55. ♂ ♀.

Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 142.

succineipennis Viereck. Kans. (Wallace Co. at 3000 ft.).

Glypta succineipennis Viereck, 1905. Kans. Acad. Sci. Trans. 19: 315. ♀.

tricincta Provancher. Que. (Magdalen Isl.).

Glypta tricincta Provancher, 1890. Nat. Canad. 19: 248. ♂ ♀.

truncata (Provancher). Que., N. Y.

Clistopyga truncata Provancher, 1883. Nat. Canad. 14: 13. ♀.

tuberculifrons Cresson. Ill.

Glypta tuberculifrons Cresson, 1870. Amer. Ent. Soc. Trans. 3: 152. ♂ ♀.

varipes Cresson. B. C., Wash., Wyo., Colo.

Glypta varipes Cresson, 1865. Ent. Soc. Phila. Proc. 4: 267. ♀.

Biology: Cushman, 1927. Jour. Agr. Res. 34: 618.

virginiensis Cresson. N. Y., N. J., Pa., W. Va.

Glypta virginiensis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 157. ♀.

vulgaris Cresson. Atlantic to 100° W. in Transit. and U. Austr. Zones. Hosts: Reported from *Trichotaphe juncidella* Clem.; *Argyrotaenia velutinana* (Wlkr.); *Exartema punctanum* Wlsm.; *Grapholitha molesta* (Busck); *Polychrosis viteana* (Clem.); *Zomaria interruptolineana* (Fern.); *Diaphania quadristigmalis* (Guen.); *Pyrausta subsequalis* (Guen.).

Glypta vulgaris Cresson, 1870. Amer. Ent. Soc. Trans. 3: 154. ♂ ♀.

Biology: Slingerland, 1904. Cornell Univ. Agr. Expt. Sta. Bul. 223: 53.

xanthogastra Cameron. Nev. (Ormsby Co.).

Glypta xanthogastra Cameron, 1903. Invertebrata Pacifica 1: 128. ♀.

Tribe LYCORINI

Genus TOXOPHOROIDES Cresson

Toxophoroides Cresson, 1873. Acad. Nat. Sci. Phila. Proc. 25: 406.
Type: ***Lycorina? apicalis*** Cresson. Monob.

Chlorolycorina Cushman, 1920. U. S. Natl. Mus. Proc. 58: 9.
Type: ***Glypta scitula*** Cresson. Orig. desig.

Revision: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 7–13.

albomarginatus albomarginatus (Cresson). Maine and Man. to N. C. and Ark. Hosts: *Dichomeris bipunctella* (Wlsm.); *Archips rosaceana* (Harr.); *Acleris minuta* (Rob.); *Grapholitha molesta* (Busck); *Psorosina hammondi* (Riley).
Glypta albomarginata Cresson, 1870. Amer. Ent. Soc. Trans. 3: 157. ♀.
Biology: Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.

albomarginatus soror (Cushman), n. status. Ariz., Mex., Calif. Transit., U. Austr., and L. Austr. Zones. Common in the Sonor. Desert.
Chlorolycorina soror Cushman, 1920. U. S. Natl. Mus. Proc. 58: 10. ♀.

glaucomatus Cushman. N. J., Pa., Md., N. C., Mich. U. Austr. Zone.
Toxophoroides glaucomatus Cushman, 1920. U. S. Natl. Mus. Proc. 58: 12. ♀.

scitulus (Cresson). N. Y. and Ind. to Fla. Hosts: *Tetralopha subcanalis* (Wlkr.); *Arogalea cristifasciella* (Chamb.); *Acrobasis juglandis* (LeB.).
Glypta scitula Cresson, 1870. Amer. Ent. Soc. Trans. 3: 155. ♀.
Biology: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 9.

xanthozonatus (Ashmead). Mo. (Kirkwood). Host: Tortricid on *Quercus* sp.
Glypta xanthozonata Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 449. ♂.

Tribe LISSONOTINI

Members of this tribe are parasites of caterpillars in burrows, leaf rolls, and other retreats.

Genus AMERSIBIA Foerster

Amersibia Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 167.
Type: (***Meniscus (Amersibia) variipes*** Szépligeti) = [***Ichneumon***] ***piceator*** (Thunberg). Included by Szépligeti, 1900.
Alloplasta Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 167.
Type: (***Lissonota murina*** Gravenhorst) = [***Ichneumon***] ***piceator*** (Thunberg). Included by Woldstedt, 1877.

bullata (Davis). Wash, Idaho, Alta.
Lampronota bullata Davis, 1895. Amer. Ent. Soc. Trans. 21: 30. ♀.

superba (Provancher). Que., Maine, N. H., Conn., N. Y.
Meniscus superbus Provancher, 1874. Nat. Canad. 6: 30. ♀.

Genus ARENETRA Holmgren

Lasiops Holmgren, 1856. Svenska Vetensk. Akad. Handl. 75: 68. Preocc.
Type: ***Tryphon pilosella*** Gravenhorst. Monob.
Arenetra Holmgren, 1859. Öfvers. Svenska Vetensk. Akad. Forh. 16: 127. N. name.

canadensis Cresson. Transcont. in Transit. Zone. Late winter.
Arenetra canadensis Cresson, 1868. Canad. Ent. 1: 36. ♂.
Arenetra hirsutula Walley, 1931. Canad. Ent. 63: 169. ♂. N. syn.
Arenetra vernalis Walley, 1931. Canad. Ent. 63: 171. ♀. N. syn.

nigrita Cresson. Transcont. in Canad., Transit., and U. Austr. Zones. Early winter to mid spring.
Arenetra nigrita Cresson, 1870. Amer. Ent. Soc. Trans. 3: 159. ♂ ♀.
Arenetra rufipes Cresson, 1870. Amer. Ent. Soc. Trans. 3: 159. ♀. N. syn.
Arenetra ventralis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 160. ♂. N. syn.
Arenetra pallipes Harrington, 1894. Canad. Ent. 26: 250. ♂. N. syn.
Arenetra leucotaenia Viereck, 1905. Kans. Acad. Sci. Trans. 19: 318. ♀. N. syn.
Arenetra occulta Walley, 1931. Canad. Ent. 63: 170. ♂. N. syn.
Morphology: Pratt, 1939. Ent. Soc. Amer. Ann. 32: 731.

Genus LAMPRONOTA Curtis

Lampronota Curtis, 1832. Brit. Ent., v. 9, p. 407.
Type: ***Ichneumon setosus*** Fourcroy. Monob.
Meniscus Schiødte, 1839. Mag. Zool., Ins. 9: 10.
Type: ***Ichneumon setosus*** Fourcroy. Desig. by Holmgren, 1860.
Bothynophrys Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 166.
Type: ***Ichneumon catenator*** Panzer. Included by Woldstedt, 1877.
Bathycetes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 167.
Type: ***Ichneumon catenator*** Panzer. Included by Schmiedeknecht, 1888.
Stilbopoides Rohwer, 1913. Ent. Soc. Wash. Proc. 15: 183.
Type: ***Stilbopoides maculiventris*** Rohwer. Orig. desig.

coloradensis Cresson. Man., Sask., Alta., B. C., Colo.
Lampronota coloradensis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 165. ♀.

maculiventris (Rohwer). Mont. (Missoula).
Stilbopoides maculiventris Rohwer, 1914. Ent. Soc. Wash. Proc. 15: 183. ♂ ♀.

pleuralis Cresson. Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: *Argyrotaenia velutinana* (Wlkr.).
Lampronota pleuralis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 161. ♂ ♀.
Lampronota occidentalis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 161. ♀.
Lampronota insita Cresson, 1870. Amer. Ent. Soc. Trans. 3: 162. ♀.
Lampronota pulchella Cresson, 1870. Amer. Ent. Soc. Trans. 3: 162. ♂.
Lissonota cressoni Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 314. N. name for *L. occidentalis*.

prionoxysti (Rohwer). Va. (Falls Church). Host: *Prionoxystus* sp. in *Castanea dentata*.
Amersibia prionoxysti Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 224. ♂ ♀.

scutellaris Cresson. Transcont. in Transit. and U. Austr. Zones. Hosts: *Ramosia tipuliformis* (L.); *Filatima pseudoacaciella* (Chamb.).
Lampronota scutellaris Cresson, 1870. Amer. Ent. Soc. Trans. 3: 161. ♀.
Meniscus Crevieri Provancher, 1874. Nat. Canad. 6: 29. ♀.
Bathycetes nidia Viereck, 1903. Amer. Ent. Soc. Trans. 29: 84. ♀.

sesiavora (Rohwer). R. I., N. Y., N. J., Md., Va. Hosts: *Thamnosphecia pyri* (Harr.); *Grapholitha molesta* (Busck).
Stilbopoides sesiavora Rohwer, 1914. Ent. Soc. Wash. Proc. 15: 184. ♂ ♀.

Genus ASYMMICTUS Foerster

Asymmictus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 200.
Type: ***Asymmictus iridescens*** Davis. Included by Davis, 1898.

iridescens Davis. Nev.
Asymmictus iridescens Davis, 1898. Amer. Ent. Soc. Trans. 24: 324. "♀" = ♂.

Genus MNIOES Townes

Mnioes Townes, 1946. Bol. Ent. Venezolana 5: 58.
Type: ***Lampronota? jucunda*** Cresson. Orig. desig.

An undescribed species occurs in the Upper Austral Zone of Maryland, South Carolina, and Tennessee.

Genus LISSONOTA Gravenhorst

Subgenus LISSONOTA Gravenhorst

Lissonota Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 30.
Type: (***Lissonota sulphurifera*** Gravenhorst) = [***Ichneumon fundator*** (Thunberg). Desig. by Morley, 1913.

Stilbonota Stephens, 1835. Illustr. Brit. Ent., v. 7, p. 126.
Type: (*Lissonota sulphurifera* Gravenhorst) = [*Ichneumon*] *fundator* (Thunberg). Desig. by Viereck, 1914.
Asynida Gistel, 1848. Naturgesch Thierr. f. höh. Schul., p. ix. N. name for *Lissonota*.
Echthrodoca Schmiedeknecht, 1900. Zool. Jahrb. Abt. f. System. 13: 301, 303, 307, 328.
Type: *Lissonota conflagrata* Gravenhorst. Desig. by Viereck, 1914.

bibrevicincta (Davis). N. Y., Mich.
Lampronota bibrevicincta Davis, 1895. Amer. Ent. Soc. Trans. 21: 31. ♀.

laevigata (Cresson). Atlantic to Cont. Divide in Canad. Zone.
Lampronota laevigata Cresson, 1870. Amer. Ent. Soc. Trans. 3: 162. ♀.

montana gelida (Cresson), n. status. S. Dak., Alta., B. C., Wash., Oreg., Idaho, Calif.
Lampronota gelida Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 377. ♂.
Lampronota vivida Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 378. ♂.
Lampronota Edwardsii Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 379. ♀.

montana montana (Cresson). Rocky Mt. area, Alaska, Labrador.
Lampronota montana Cresson, 1865. Ent. Soc. Phila. Proc. 4: 267. ♀.
Exetastes consimilis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 278. ♂.
Echthrodoca clypearia Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 199. ♂.
Harrimaniella ariel Viereck, 1903. Amer. Ent. Soc. Trans. 29: 85. ♂.

montana varia (Cresson), n. status. Atlantic to Cont. Divide in Transit. and U. Austr. Zones. Weedy edges of fields. Host: *Crymodes devastator* (Brace).
Lampronota varia Cresson, 1870. Amer. Ent. Soc. Trans. 3: 164. ♂.
Lampronota americana Cresson, 1870. Amer. Ent. Soc. Trans. 3: 164. ♀.
Lampronota amphimelaena Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 117. ♂.
Lampronota puritana Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 450. ♀.
Hammaniella (!) *relativa* Viereck, 1902. Canad. Ent. 34: 67. ♂.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 141.
Morphology: Pratt, 1939. Ent. Soc. Amer. Ann. 32: 731.

occidentalis (Viereck). N. Mex. (Beulah).
Meniscus occidentalis Viereck, 1903. Amer. Ent. Soc. Trans. 29: 83. ♀.

rufipes Cresson. Atlantic to 100° W. in Transit. and U. Austr. Zones. In fall, on *Solidago* flowers. Hosts: Reported from tortricid leaf roller on *Solidago* sp.; *Oligia fractilinea* (Grote).
Lissonota rufipes Cresson, 1868. Canad. Ent. 1: 36. ♀.
Lampronota tegularis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 163. ♂.
Lampronota provancheri Dalla Torre, 1901. Cat. Hym., v. 3, p. 518.

Subgenus ANARTHRONOTA Schmiedeknecht

Anarthronota Schmiedeknecht, 1900. Zool. Jahrb. Abt. f. System. 13: 305, 330.
Type: *Lissonota manca* Brauns. Desig. by Viereck, 1914.

brunnea (Cresson), n. comb. Atlantic to 100° W. in Transit. and U. Austr. Zones. Early spring. Hosts: *Achatodes zeae* (Harr.); *Luperina stipata* (Morr.); *Papaipema nebris* (Guen.); *P. cataphracta* Grote.
Lissonota brunnea Cresson, 1868. Canad. Ent. 1: 37. ♀.
Nadia apalachia Viereck, 1902. Canad. Ent. 34: 68. ♂.
Biology: Decker, 1930. Iowa Agr. Expt. Sta. Res. Bul. 125: 160.—Decker, 1931. Iowa Agr. Expt. Sta. Res. Bul. 143: 345.—Decker, 1935. Iowa State Col. Jour. Sci. 9: 572.

Genus PIMPLOPTERUS Ashmead

Ensimus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 167. Preocc.
Type: *Lissonota dubia* Holmgren. Desig. by Viereck, 1914.

Pimplopterus Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 52.
Type: (***Pimplopterus alaskensis*** Ashmead)=[***Lissonota***] ***frigidus*** (Cresson). Orig. desig.

acrobasidis (Ashmead). Ohio (Paxton). Host: *Mineola indiginella* (Zell.).
Eusimus (!) ***acrobasidis*** Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 212. ♂.

aleutianus (Cresson). Alaska (Aleutian Isl.).
Mesoleius? aleutianus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 371. ♂.

conocola (Rohwer). R. I., N. Y., B. C., Calif.
Lissonota conocola Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 222. ♂ ♀.

dakrumae (Ashmead). Calif. Hosts: *Dioryctria xanthaenobares* Dyar; *?Laetilia coccidivora* (Comst.).
Meniscus dakrumae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 212. ♀.
Lissonota dioryctriae Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 221. ♀.

davisi Townes. Mich. (Agricultural College).
Lampronota angusta Davis, 1895. Amer. Ent. Soc. Trans. 17: 30. ♀. Preocc.
Pimplopterus davisi Townes, 1944. Amer. Ent. Soc. Mem. 11: 452. N. name.

electra (Viereck). N. Mex. (Beulah).
Lissonota electra Viereck, 1903. Amer. Ent. Soc. Trans. 29: 83. ♀.

evetriae (Rohwer). Colo. (Cheyenne Mts.).
Lissonota evetriae Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 220. ♂ ♀.

exiguus (Cresson). W. Va.
Lampronota exigua Cresson, 1870. Amer. Ent. Soc. Trans. 3: 164. ♀.

fenellus (Viereck). N. Mex. (Beulah).
Lissonota fenella Viereck, 1903. Amer. Ent. Soc. Trans. 29: 82. ♀.
Harrimaniella minor Viereck, 1903. Amer. Ent. Soc. Trans. 29: 86. ♂.

frigidus (Cresson). Transcont. in Canad., Transit., and U. Austr. Zones. Host: *Crambus vulgivagellus* Clem.
Lissonota frigida Cresson, 1868. Canad. Ent. 1: 36. ♀.
Lampronota exilis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 165. ♂ ♀.
Lampronota imitatrix Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 121. ♀.
Pimplopterus alaskensis Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 52. ♀.
Lissonota alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 197. ♀. Preocc.
Harrimaniella paeneimitatix Viereck, 1905. Kans. Acad. Sci. Trans. 19: 317. ♀.
Lissonota sakala Cushman, 1942. U. S. Natl. Mus. Proc. 92: 287. N. name for *L. alaskensis*.

hilaris (Cresson). Calif.
Lampronota hilaris Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 378. ♀.

inconstans (Cushman). Oreg., Calif. Host: *Melissopus latiferreanus* (Wlsm.).
Lissonota inconstans Cushman, 1940. Ent. Soc. Wash. Proc. 42: 157. ♂ ♀.

interpellatus (Walsh). ?Ill.
Lampronota interpellata Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 118. ♂.

jacobi (Walley). B. C. (Canim Lake).
Asphragis jacobi Walley, 1942. Canad. Ent. 74: 234. ♂ ♀.

macer (Cresson). Del.
Lampronota macra Cresson, 1870. Amer. Ent. Soc. Trans. 3: 163. ♂.

marginatus (Provancher). Que., Ont., R. I., N. Y., Pa., W. Va. Host: *Trichotaphe levisella* Fyles.
Lampronota marginata Provancher, 1873. Nat. Canad. 5: 474. ♀.
Taxonomy: Provancher, 1880. Nat. Canad. 12: 73.

nigricornis (Provancher). Transcont. in Transit. Zone.
Lampronota nigricornis Provancher, 1873. Nat. Canad. 5: 476. ♀.

Taxonomy: Provancher, 1880. Nat. Canad. 12: 73.—Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 117. ♂.

nigripes (Provancher). Ont. (Ottawa).
Lampronota nigripes Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 118. ♀.

palloranus (Davis). Mass., N. J., Pa., N. C.
Lampronota pallorana Davis, 1895. Amer. Ent. Soc. Trans. 21: 31. ♀.

parallelus (Gravenhorst). Labrador; Europe.
Lissonota parallela Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 79. ♂ ♀.

parvus (Cresson). Transcont. in Transit. Zone.
Lampronota parva Cresson, 1870. Amer. Ent. Soc. Trans. 3: 163. ♀.

penurius (Davis). "Canada."
Aperileptus penuria Davis, 1897. Amer. Ent. Soc. Trans. 24: 244. ♂.

punctulatus (Cresson). Maine and Que. to N. C. Early fall.
Lampronota punctulata (As *punctata* in key) Cresson, 1870. Amer. Ent. Soc. Trans. 3: 163. ♀.
Lampronota albifacies Provancher, 1873. Nat. Canad. 5: 475. ♂.
Bassus areolatus Provancher, 1874. Nat. Canad. 6: 31, 58. ♀.

recurvariae (Cushman). Maine, N. Y. Host: *Recurvaria piceaella* Kearf.
Lissonota recurvariae Cushman, 1935. Wash. Acad. Sci. Jour. 25: 552. ♂ ♀.

rubricus (Cresson). Atlantic to 100° W. in Transit. Zone.
Lampronota rubrica Cresson, 1870. Amer. Ent. Soc. Trans. 3: 165. ♀.
Lampronota humeralis Provancher, 1873. Nat. Canad. 5: 476. "♀"=♂.
Lissonota philipi Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 314. ♂.

segnis (Cresson). B. C. (Vancouver Isl.).
Lampronota segnis Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 378. ♂.

sexcinctus (Ashmead). Colo. (Cusack Ranch).
Pimpla sexcincta Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 24. ♂.

tropicus (Davis). Colo., south. Calif.
Aperileptus tropicus Davis, 1897. Amer. Ent. Soc. Trans. 24: 244. ♂.

yakutatensis Ashmead. Alaska.
Pimplopterus yakutatensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 197. ♀.

Genus TREVORIA Ashmead

Trevoria Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 50.
Type: *Trevoria yukatatensis* Ashmead. Orig. desig.

yukatatensis Ashmead. Alaska (Yakutat).
Trevoria yukatatensis Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 50. ♂.
Taxonomy: Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 196.—Cushman, 1942. U. S. Natl. Mus. Proc. 92: 287.

Genus CRYPTOPIMPLA Taschenberg

Cryptopimpla Taschenberg, 1863. Ztschr. Gesam. Naturw. 21: 249, 292.
Type: *Phytodietus blandus* Gravenhorst. Desig. by Viereck, 1914.
Aphanodon Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 166.
Type: *Phytodietus errabundus* Gravenhorst. Included by Schmiedeknecht, 1888.
Sibiriakoffia Holmgren, 1880. Nov. Spec. Ins., p. 13.
Type: *Sibiriakoffia arctica* Holmgren. Monob.
Xenocornia Schmiedeknecht, 1900. Zool. Jahrb. Abt. f. System. 13: 301, 305, 308, 334.
Type: *Xenocornia solitaria* Schmiedeknecht. Monob.
Harrimaniella Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 52.
Type: *Harrimaniella yukakensis* Ashmead. Orig. desig.

jocosa (Cresson). Atlantic to Cont. Divide in Canad. and Transit. Zones.
Lampronota? jocosa Cresson, 1870. Amer. Ent. Soc. Trans. 3: 162. ♂.
Lampronota agilis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 164. ♀.
Mesoleptus angustus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 96. ♂ ♀.

Tryphon fractus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 101. ♂.
Polyblastus decoratus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 107. "♀" = ♂.
Polyblastus inornatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 108. ♀.

obscurella (Cresson). Que., Wash., Calif.
Phytodietus obscurellus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30:379. ♀.
Aphanodon luctuosus Walley, 1934. Canad. Ent. 66: 237. ♂ ♀.

yukakensis (Ashmead). Alaska (Kukak Bay).
Harrimaniella yukakensis Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 52. ♂.
Taxonomy: Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 198. ♂.

Genus ASPHRAGIS Foerster

Asphragis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 166.
Type: ***Lissonota occupator*** Gravenhorst. Desig. by Viereck, 1914.

michiganensis (Davis). Atlantic to 100° W. in U. Austr. Zone.
Meniscus Michiganensis Davis, 1894. Canad. Ent. 26: 323. ♀.

mirabilis (Cresson). Maine to N. C., west to Mich., Kans., and Ariz. Host: *Aroga trialbamaculella* (Chamb.).
Meniscus mirabilis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 166. ♀.
Clistopyga pleuralis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 448. ♂.
Meniscus ostentator Davis, 1894. Canad. Ent. 26: 321. ♂ ♀.
Asphragis pulcherrimus Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 170. ♂ ♀.

subflavus (Davis). N. C., S. C., Ga., Mo., Tex.
Meniscus subflavus Davis, 1898. Amer. Ent. Soc. Trans. 24: 371. ♂ ♀.

Genus SYZEUCTUS Foerster

Diceratops Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 167.
Type: ***Pimpla bicornis*** Gravenhorst. Included by Schmiedeknecht, 1888.
Syzeuctus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 167.
Type: ***Ichneumon maculatorius*** Fabricius. Included by Schmiedeknecht, 1888.
Syzeucta Thomson, 1889. Opusc. Ent., fasc. 13, p. 1415.
Type: (***Syzeucta maculatoria*** Gravenhorst) = [***Ichneumon***] ***maculatorius*** (Fabricius). Desig. by Townes, 1944.
?Meyva Cameron, 1899. Manchester Lit. and Phil. Soc. Mem. 43: 191.
Type: ***Meyva villosa*** Cameron. Monob.
Ephialtina Szépligeti, 1908. *In* Sjostedt, Kilimandjaro-Meru Exped., v. 8, p. 74.
Type: ***Ephialtina apicalis*** Szépligeti. Monob.

comptus (Davis). Que., Mass., Mich., Iowa, Kans., Ga.
Meniscus comptus Davis, 1894. Canad. Ent. 26: 322. ♀.

elegans (Cresson). Atlantic west to Colo. in Transit., U. Austr., and L. Austr. Zones. Hosts: *Psilocorsis* sp.; *Tetralopha* sp.; *Ichthyura* sp.
Meniscus elegans Cresson, 1870. Amer. Ent. Soc. Trans. 3: 165. ♂ ♀.
Meniscus slossonae Davis, 1894. Canad. Ent. 26: 322. ♀.
Morphology: Pratt, 1939. Ent. Soc. Amer. Ann. 32: 731.

epischniae Cushman. Calif. (Crows Landing). Host: *Epischnia granitella* Rag.
Syzeuctus epischniae Cushman, 1926. U. S. Natl. Mus. Proc. 67 (23): 9. ♂ ♀.

eximius Walley. Man., Iowa, Nev., Colo.; Mexico.
Syzeuctus eximius Walley, 1934. Canad. Ent. 66: 238. ♂ ♀.

sigmoidalis Cushman. Que. (Godbout).
Syzeuctus sigmoidalis Cushman, 1926. U. S. Natl. Mus. Proc. 67 (23): 8. ♂ ♀.

Genus DIRADOPS Townes

Diradops Townes, 1946. Bol. Ent. Venezolana 5: 59.
Type: ***Meniscus bethunei*** Cresson. Orig. desig.

bethunei (Cresson). Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: *Heterocampa manteo* (Dbldy.).
Meniscus Bethunei Cresson, 1869. Canad. Ent. 1: 105. ♀.
Meniscus? Johnsonii Davis, 1894. Canad. Ent. 26: 323. ♀.

Tribe NEORHACODINI

Genus NEORHACODES Hedicke

Rhacodes Ruschka, 1922. Arch. Naturg. 88, A, 5: 138. Preocc.
Type: ***Rhacodes enslini*** Ruschka. Monob.
Neorhacodes Hedicke, 1922. Deut. Ent. Ztschr., p. 427. N. name.
Revision: Cushman, 1940. U. S. Natl. Mus. Proc. 88: 525-526.

A European species of *Neorhacodes* is known to be parasitic on *Spilomena* (Sphecidae).

brevicauda Cushman. Ariz.
Neorhacodes brevicauda Cushman, 1940. U. S. Natl. Mus. Proc. 88: 526. ♀.

longicauda Cushman. Colo. (near Steamboat Springs).
Neorhacodes longicauda Cushman, 1940. U. S. Natl. Mus. Proc. 88: 526. ♀.

Tribe BANCHINI

Genus EXETASTES Gravenhorst

Exetastes Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 395.
Type: ***Ichneumon fornicator*** Fabricius. Desig. by Westwood, 1839.
Leptobatus Gravenhorst, 1829. Ichn. Europaea v. 3, p. 432.
Type: ***Leptobatus ziegleri*** Gravenhorst. Desig. by Viereck, 1914.
Rhimphalea Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 202.
Type: (***Rhimphalea brevicorpa*** Davis) = ***Exetastes bioculatus*** Cresson. Included by Davis, 1897.
Allexetastes Kokujev, 1904. Rev. Russ. Ent. 4: 106.
Type: ***Exetastes*** (***Allexetastes***) ***komarovi*** Kokujev. Desig. by Viereck, 1914.
?Tegona Morley, 1913. Fauna Brit. India., Hym., v. 3, p. 251.
Type: ***Tegona rufipes*** Morley. Monob.
Pseudexetastes Meyer, 1927. Konowia 6: 308.
Type: ***Pseudexetastes diakonivi*** Meyer. Orig. design.
Tetractenion Seyrig, 1932. Acad. Malagache Mém. 11: 167.
Type: ***Tetractenion acaule*** Seyrig. Monob.
Revision: Cushman, 1937. U. S. Natl. Mus. Proc. 84: 243-312.

abdominalis Cresson. Minn., Colo., Alta.
Exetastes abdominalis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 276. ♀.

affinis Cresson. Mich., Colo., Oreg.
Exetastes affinis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 277. ♀.

albitarsis Provancher. Atlantic to Cont. Divide in Transit. Zone.
Exetastes albitarsis Provancher, 1874. Nat. Canad. 6: 78. ♀.
Exetastes rugosus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 280. N. name.

alternatipes Cushman. N. Mex. (Bernalillo Co.).
Exetastes alternatipes Cushman, 1937. U. S. Natl. Mus. Proc. 84: 299. ♀.

alticola Cushman. Wash., Colo. Huds. Zone.
Exetastes alticola Cushman, 1937. U. S. Natl. Mus. Proc. 84: 284. ♂ ♀.

angustoralis Cushman. Atlantic to 100° W. In Transit. and U. Austr. Zones; also Wyo. Overgrown fields in fall. Frequently reported as *E. fascipennis* (misdet.)

Exetastes angustoralis Cushman, 1937. U. S. Natl. Mus. Proc. 84: 291. ♂ ♀.

Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 245, 246.

angustus Cushman. Alta.
Exetastes angustus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 290. ♀.

anthracinus Cushman. Mass., N. C., S. C., Ga., S. Dak., Kans., Tex., Colo., N. Mex., Ariz.
Exetastes anthracinus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 305. ♂ ♀.
Exetastes geminus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 306. ♀. N. syn.
Exetastes persimilis Cushman, 1937. U. S. Natl. Mus. Proc. 84: 306. ♂ ♀. N. syn.

bifenestratus Cushman. Gulf and Atlantic states north to D. C.; Mexico. Host: *Agrotis malefida* Guen.
Ichneumon bifasciatus Say, 1829. Contrib. Maclur. Lyc. 1: 72. ♀. Preocc.
Exetastes bifenestratus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 274. ♂ ♀. N. name.

bioculatus Cresson. Atlantic to 100° W. in U. Austr. Zone.
Exetastes bioculatus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 169. ♂.
Rhimphalea brevicorpa Davis, 1897. Amer. Ent. Soc. Trans. 24: 274. ♀.

bituminosus Cushman. Atlantic to Ill. in Transit. and U. Austr. Zones; also B. C. Late fall in woods.
Exetastes bituminosus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 300. ♂ ♀.

brevicornis Cushman. Sask., Alta.
Exetastes brevicornis Cushman, 1937. U. S. Natl. Mus. Proc. 84: 273. ♂ ♀.

buccatus Cushman. Calif. (near Paso Robles).
Exetastes buccatus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 271. ♂ ♀.

caeruleus Cresson. Yukon Terr., Mont., Colo.
Exetastes caeruleus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 276. ♀.

caliginosus (Walley). Sask., Alta. Early spring.
Arenetra caliginosa Walley, 1931. Canad. Ent. 63: 168. ♂.

callipterus Cushman. Ariz. (Douglas).
Exetastes callipterus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 277. ♀.

carinatifrons Cushman. Ariz., N. Mex., Tex. Sonor. Desert.
Exetastes carinatifrons Cushman, 1937. U. S. Natl. Mus. Proc. 84: 255. ♀.

carinatus Cushman. Tex. (Dimmit Co.).
Exetastes carinatus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 258. ♀.

coloradensis Cushman. Colo. (Ft. Collins).
Exetastes coloradensis Cushman, 1937. U. S. Natl. Mus. Proc. 84: 298. ♀.

concavus Cushman. Colo., Ariz. Canad. Zone.
Exetastes concavus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 281. ♂ ♀.

concoloripes Cushman. Alta., Oreg., Colo.
Exetastes concoloripes Cushman, 1937. U. S. Natl. Mus. Proc. 84: 298. ♂ ♀.

convergens Cushman. Colo., Wyo.
Exetastes convergens Cushman, 1937. U. S. Natl. Mus. Proc. 84: 291. ♀.

corvinus Cushman. Nev., Calif.
Exetastes corvinus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 303. ♀.

crassisculptus Cushman. Alaska, B. C., Alta., Wash., Oreg.
Exetastes crassisculptus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 278. ♂ ♀.

deuteromaurus Dalla Torre. Calif.
Exetastes maurus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 370. ♀. Preocc.

Exetastes deuteromaurus Dalla Torre, 1901. Cat. Hym., v. 3, p. 71. N. name.

dichrous Cushman. Calif.
Exetastes dichrous Cushman, 1937. U. S. Natl. Mus. Proc. 84: 302. ♀.

dilutipes Cushman. Alta., Wyo.
Exetastes dilutipes Cushman, 1937. U. S. Natl. Mus. Proc. 84: 285. ♂ ♀.

erythrogaster Cushman. B. C., Oreg.
Exetastes erythrogaster Cushman, 1937. U. S. Natl. Mus. Proc. 84: 297. ♂ ♀.

fascipennis Cresson. Alta., Colo., N. Mex., Ariz.
Exetastes flavitarsis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 277. ♂. Preocc.
Exetastes fascipennis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 278. ♀.
Exetastes cressonii Dalla Torre, 1901. Cat. Hym., v. 3, p. 70. N. name.

flavipennis Cresson. Mich., Idaho, Colo.; Mexico.
Exetastes flavipennis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 275. ♀.

flavus Cushman. Colo., N. Mex.
Exetastes flavus Cresson, 1937. U. S. Natl. Mus. Proc. 84: 265. ♀.

igneipennis Cushman. Colo., N. Mex.; Mexico.
Exetastes igneipennis Cushman, 1937. U. S. Natl. Mus. Proc. 84: 270. ♂ ♀.

illinoiensis (Walsh). Mich., Ill., Minn., Sask., Alta., Colo.
Leptobatus illinoiensis Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 148. ♀.

infumatricus Cushman. B. C., Wash.
Exetastes infumatricus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 283. ♀.

lasius Cushman. Nebr., Kans. Host: *Chorizagrotis auxiliaris* (Grote).
Exetastes lasius Cushman, 1937. U. S. Natl. Mus. Proc. 84: 258. ♂ ♀.

matricus Provancher. Mass., Que., S. Dak., Alta.
Exetastes matricus Provancher, 1879. Nat. Canad. 11: 213. ♀.
Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 245, 246.—Pratt, 1939. Ent. Soc. Amer. Ann. 32: 731.

nervulus exploratus Davis. N. H., Mich., Ill., Wis., Minn., N. Dak., S. Dak., B. C.
Exetastes exploratus Davis, 1898. Amer. Ent. Soc. Trans. 24: 365. ♂ ♀.

nervulus intermedius Cushman. Que., Ont., Maine, Vt., Mass., Conn., N. Y.
Exetastes nervulus var. *intermedius* Cushman, 1937. U. S. Natl. Mus. Proc. 84: 310. ♂ ♀.

nervulus nervulus (Say). R. I., Conn., N. Y., N. C., Ind. Transit. Zone and adjacent U. Austr. Zone.
Banchus nervulus Say, 1836. Boston Jour. Nat. Hist. 1: 246.

nervulus niger Cresson. Minn., N. Dak., Sask., Alta.
Exetastes niger Cresson, 1865. Ent. Soc. Phila. Proc. 4: 275. ♂ ♀.

nervulus rufofemoratus Provancher. Atlantic west to Mich. and Ill., in Canad. Zone and adjacent Transit. Zone.
Exetastes rufofemoratus Provancher, 1877. Nat. Canad. 9: 14. ♀.
Exetastes rufofemoratus Provancher, 1879. Nat. Canad. 11: 212. ♀. Preocc.

nigribasis Cushman. S. Dak., Alta., Wash.
Exetastes nigribasis Cushman, 1937. U. S. Natl. Mus. Proc. 84: 289. ♂ ♀.

nigribasis var. **subimpressus** Cushman, n. status. Mont., Alta.
Exetastes subimpressus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 288. ♂ ♀.

obscurus Cresson. Mass., Md., Va., S. C., Ohio, Man., Oreg. Barren abandoned fields, in late fall.
Exetastes decoloratus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 280. ♂.
Exetastes obscurus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 281. ♀.

ornatus Cushman. N. H., R. I., Conn., N. Y., N. J., Pa., Md., Ohio, Mich.
Exetastes ornatus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 286. ♂ ♀.

pallidus Cushman. S. Dak., Colo.
Exetastes pallidus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 266. ♀.

pectinatus Cushman. Sask., Alta., Mont., S. Dak., Colo.
Exetastes pectinatus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 272. ♀.

pictus Cushman. Tex. (Devils River).
Exetastes pictus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 260. ♀.

pilosus Cushman. Oreg. (Corvallis).
Exetastes pilosus Cushman, 1940. U. S. Natl. Mus. Proc. 88: 364. ♂ ♀.

propinquus Cushman. Atlantic to 100° W. in U. Austr. and L. Austr. Zones. On *Solidago* flowers.
Exetastes propinquus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 267. ♂ ♀.

ridens Cushman. B. C., Wash., Idaho, Utah, Ariz.
Exetastes ridens Cushman, 1937. U. S. Natl. Mus. Proc. 84: 262. ♂ ♀.

ruficoxalis Cushman. Alta., B. C., Wash., Idaho, S. Dak., Colo., Utah.
Exetastes ruficoxalis Cushman, 1937. U. S. Natl. Mus. Proc. 84: 294. ♂ ♀.

rufipes Cresson. Wyo., Colo., Wash., Oreg.
Exetastes rufipes Cresson, 1865. Ent. Soc. Phila. Proc. 4: 277. ♀.
Exetastes purpureus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 285. ♀.
Taxonomy: Cushman, 1940. U. S. Natl. Mus. Proc. 88: 364.

rufobalteatus Cushman. Transcont. in Canad. Zone.
Exetastes rufobalteatus Cushman, 1937. U. S. Natl. Mus. Proc. 84: 290. ♂ ♀.

scutellaris Cresson. S. Dak., Alta., Colo., Utah., N. Mex., Calif.
Exetastes scutellaris Cresson, 1865. Ent. Soc. Phila. Proc. 4: 279. ♂ ♀.
Banchus caudatus Provancher, 1886. Addit. Corr. Faune Ent. Canada. Hym., p. 121. ♀.

septum Cushman. Oreg., Calif. Host: *Catabena lineolata* Wlkr.
Exetastes septum Cushman, 1937. U. S. Natl. Mus. Proc. 84: 257. ♂ ♀.

suaveolens Walsh. Atlantic to 100° W. in Transit. Zone. Host: *Cucullia asteroides* Guen.
Exetastes suaveolens Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 146. ♂ ♀.
Paniscus quebecensis Provancher, 1874. Nat. Canad. 6: 106. ♂ ♀.

zelotypus Cresson. South. Calif.
Exetastes zelotypus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 370. ♂ ♀.

Genus AGATHILLA Westwood

Agathilla Westwood, 1882. Tijdschr. Ent. 25: 23.
Type: *Agathilla fulvopicta* Westwood. Monob.
Agathobanchus of authors, not of the genotype.

bradleyi (Viereck). Atlantic to 100° W. in U. Austr. Zone. Reported in literature as *Agathobanchus aequatus* (misdet.). Host: *Cirrophanus triangulifer* Grote.
Agathobanchus bradleyi Viereck, 1905. Kans. Acad. Sci. Trans. 19: 303. ♂ ♀.

Genus CERATOGASTRA Ashmead

Ceratosoma Cresson, 1865. Ent. Soc. Phila. Proc. 4: 281. Preocc.
Type: (*Ceratosoma fasciata* Cresson) = [*Agathis*] *ornatus* (Say)
Desig. by Viereck, 1914.
Ceratogastra Ashmead, 1900. Canad. Ent. 32: 368. N. name.
Key to subspecies: Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13): 21.

The single species of this genus occurs in late summer and early fall on flowers of *Solidago* and other Compositae. It oviposits into first-stage larvae of *Feltia* in the flower heads.

ornata apicalis (Cresson), n. status. Iowa, Ark., Kans., Colo.
Ceratosoma apicalis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 282. ♂ ♀.

Taxonomy: Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 102.—Howard, 1902. The Insect Book, pl. 10, fig. 22.

ornata fasciata (Cresson), n. status. Mass. to Ga. in U. Austr. Zone.
Ceratosoma fasciata Cresson, 1865. Ent. Soc. Phila. Proc. 4: 283. ♀.
Ceratogastra trifasciata Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13): 21. ♀. N. syn.

ornata ornata (Say). West side of Appalachian Mts. to 100° W.; also Colo., Ga., and Fla. U. Austr. Zone.
Agathis polita Say, 1836. Boston Jour. Nat. Hist. 1: 225. ♂ ♀. N. syn.
Agathis ornata Say, 1836. Boston Jour. Nat. Hist. 1: 226. ♂.
Ceratosoma rubyata Davis, 1898. Amer. Ent. Soc. Trans. 24: 366. ♀. N. syn.

ornata n. subsp. Calif. (Mojave Desert).

Genus BANCHUS Fabricius

Banchus Fabricius, 1798. Sup. Ent. System., p. 209, 233.
Type: *Banchus pictus* Fabricius. Desig. by Curtis, 1836.
Corynephanus Wesmael, 1849. Soc. Roy. Belg. Bul. 16 (pt. 1): 631.
Type: *Banchus monileatus* Gravenhorst. Monob.
Cidaphurus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 159.
Type: *Banchus (Cidaphurus) volutatorius* Linnaeus. Included by Woldstedt, 1877.
Nawaia Ashmead, 1906. U. S. Natl. Mus. Proc. 30: 184.
Type: *Nawaia japonica* Ashmead. Monob.

borealis Cresson. Ont.
Banchus borealis Cresson, 1868. Canad. Ent. 1: 33. "♂" = ♀.

canadensis Cresson. Transcont. in Transit. Zone.
Banchus canadensis Cresson, 1868. Canad. Ent. 1: 34. ♂ ♀.
Biology: Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.

cressonii (Viereck). Atlantic to 100° W. in U. Austr. Zone. Early spring.
Cidaphurus cressonii Viereck, 1902. Canad. Ent. 34: 69. ♀.

flavescens Cresson. Transcont. in Canad. and Transit. Zones. Host: *Barathra curialis* (Sm.).
Banchus flavescens Cresson, 1868. Canad. Ent. 1: 33. ♂.
Banchus ferrugineus Provancher, 1877. Nat. Canad. 9: 14. ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 152.—Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.

inermis Provancher. Transcont. in Canad. and Transit. Zones. Host: *Polia legitima* (Grote).
?Ichneumon ferrugator Kirby, 1837. *In* Richardson, Fauna Bor. Amer., v. 4, p. 258. ♀. Preocc.
Banchus flavovariegatus Provancher, 1874. Nat. Canad. 6: 61. ♂ ♀.
Banchus inermis Provancher, 1874. Nat. Canad. 6: 62. ♀.
Banchus polychromus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 366. "♀" = ♂.
Taxonomy: Morley, 1910. Ent. 43: 243.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 152.

monileatus alticolus (Ashmead), n. status. N. Mex., Colo.
Cidaphurus alticola Ashmead, 1901. Psyche 9: 148. ♂.

monileatus monileatus Gravenhorst. Alaska, Alta., Que., Greenland; Europe.
Banchus monileatus Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 393. ♂ ♀.
Banchus formidabilis Provancher, 1874. Nat. Canad. 6: 61. ♀.
Banchus (Corynephanus) groenlandicus Aurivillius, 1890. Svenska Vetensk. Akad. Handl. Bihang 15: 30. ♂ ♀.
Taxonomy: Lundbeck, 1897 (1896). Nat. For. Københavns Vidensk. Medd., p. 240.—Roman, 1910. Ent. Tidskr. 31: 153.—Roman, 1930. Ann. Mag. Nat. Hist. (10) 5: 285.

pallescens Provancher. Transcont. in Transit. Zone.
Banchus pallescens Provancher, 1874. Nat. Canad. 6: 62. ♀.

Banchus insignis Provancher, 1874. Nat. Canad. 6: 63. ♂.
Biology: Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.

spinosus Cresson. Colo.
Banchus spinosus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 274. ♂.

superbus Cresson. B. C., Wash., Oreg., Calif., Nev., Utah, Ariz., Colo. Transit. Zone.
Banchus superbus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 273. ♂.
Cidaphurus nigrolineatus Cameron, 1903. Invertebrata Pacifica 1: 129. "♂" = ♀. N. syn.

tricolor Cameron. Nev. (Ormsby Co.).
Banchus tricolor Cameron, 1903. Invertebrata Pacifica 1: 130. ♂.

Subfamily SCOLOBATINAE (= MESOLEIINAE)

Members of this subfamily, with the partial exception of *Euceros*, are internal parasites of Tenthredinoidea. They oviposit into the host larva and emerge from its cocoon.

Tribe SCOLOBATINI

Genus SCOLOBATES Gravenhorst

Scolobates Gravenhorst, 1829. Ichn. Europaea v. 2, p. 357.
Type: (***Scolobates crassitarsus*** Gravenhorst) = [***Ichneumon***] ***auriculatus*** (Fabricius). Desig. by Westwood, 1839.
Aglyphus Giraud, 1872. Soc. Ent. France Ann. (5) 1: 411.
Type: (***Aglyphus nigripennis*** Giraud) = [***Ichneumon***] ***auriculatus*** (Fabricius). Monob.

Members of this genus are parasitic on argid sawflies.

auriculatus (Fabricius). Transcont. in Transit. and U. Austr. Zones; Eurasia.
Ichneumon auriculatus Fabricius, 1804. Systema Piezatorum, p. 69.
Scolobates crassitarsus Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 360. ♂ ♀.
Prionopoda canadensis Harrington, 1892. Canad. Ent. 24: 98. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 264.

Tribe EUCERATINI

Genus EUCEROS Gravenhorst

Euceros Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 368.
Type: ***Euceros crassicornis*** Gravenhorst. Monob.
Eumesius Westwood, 1840. Introd. Mod. Classif. Ins., v. 2, p. 153. N. name.
Omaloceros Giraud, 1857. Zool. Bot. Ver. Wien Verh. 7: 163. N. name.
Pseudasthenara Uchida, 1930. Hokkaido Imp. Univ., Faculty Agr. Jour. 25: 276. N. syn.
Type: ***Asthenara rufocincta*** Ashmead. Orig. desig.
Revision: Davis, 1897. Amer. Ent. Soc. Trans. 24: 254–257.

albomarginatus Cushman. N. H., N. Y., Pa., Ohio. Transit. Zone.
Euceros albomarginatus Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 12. ♀.

angulicornis Walley. B. C.
Euceros angulicornis Walley, 1932. Canad. Ent. 64: 246. ♂ ♀.

canadensis Cresson. Que., Ont., N. H., Vt., N. Y., Mich., Ohio. Transit. Zone.
Euceros canadensis Cresson, 1869. Canad. Ent. 1: 103. ♀.

digitalis Walley. Ont.
Euceros digitalis Walley, 1932. Canad. Ent. 64: 242. ♂.

faciens Davis. Wash., Oreg. Host: *Neodiprion tsugae* Middl.

Euceros faciens Davis, 1897. Amer. Ent. Soc. Trans. 24: 256. ♂.
Biology: Furniss and Dowden, 1941. Jour. Econ. Ent. 34: 49, 51.

flavescens Cresson. W. Va.
Euceros flavescens Cresson, 1869. Canad. Ent. 1: 105. ♂ ♀.

frigidus Cresson. Maine, Ont. Hosts: *Semiothisa granitata* (Grote); *Neodiprion abietis* (Harr.); *N. nanulus* Schedl.
Euceros frigidus Cresson, 1869. Canad. Ent. 1: 105. ♀.

medialis Cresson. Maine and Que. to N. C., west to Alta. Transit. and U. Austr. Zones.
Euceros medialis Cresson, 1869. Canad. Ent. 1: 105. ♀.

neodiprioni Walley. Que., Md. Host: *Neodiprion* sp.
Euceros neodiprioni Walley, 1932. Canad. Ent. 64: 245. ♂ ♀.

obesus Davis. N. Y., Ill.
Euceros obesa Davis, 1897. Amer. Ent. Soc. Trans. 24: 255. ♀.

sanguineus Davis. Colo.
Euceros sanguineus Davis, 1897. Amer. Ent. Soc. Trans. 24: 255. ♂ ♀.

thoracicus Cresson. Atlantic to 100° W. in Transit. Zone.
Euceros Couperii Cresson, 1869. Canad. Ent. 1: 104. ♂.
Euceros thoracicus Cresson, 1869. Canad. Ent. 1: 105. ♂.
Euceros vierecki Hertzog, 1909. Ent. News 20: 245. "♂" = ♀.
Euceros decorus Walley, 1932. Canad. Ent. 64: 244. ♂ ♀.

Tribe PIONINI

Genus TREMATOPYGUS Holmgren

Trematopygus Holmgren, 1855. Svenska Vetensk. Akad. Handl. 1: 179.
Type: *Trematopygus ruficornis* Holmgren. Desig. by Viereck, 1912.
Epachthes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 205.
Type: *Ichneumon erythropalpus* Gmelin. Desig. by Viereck, 1914.
Epachtus Thomson, 1894. Opusc. Ent., fasc. 19, p. 1999.
Type: *Ichneumon erythropalpus* Gmelin. Desig. by Viereck, 1914.
Lethades Davis, 1897. Amer. Ent. Soc. Trans. 24: 197, 204.
Type: *Adelognathus texanus* Ashmead. Monob.
Volucris Davis, 1897. Amer. Ent. Soc. Trans. 24: 267; 1898, 24: 287.
Type: *Tryphon semirufus* Cresson. Monob.

kukakensis Ashmead. Alaska (Kukak Bay).
Trematopygus kukakensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 212. ♀.

semirufus (Cresson). Transcont. in Canad. and Transit. Zones.
Tryphon semirufus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 278. ♀.
Tryphon rufocinctus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 280. ♀.
Tryphon tuberculifer Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 103. ♀.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 287. ♂ ♀.

texanus (Ashmead). Tex.
Adelognathus texanus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 442. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 204. ♀.

Genus OOCENTETER Cushman

Oocenteter Cushman, 1935. Wash. Acad. Sci. Jour. 25: 555.
Type: *Oocenterer tomostethi* Cushman. Orig. desig.

tomostethi Cushman. N. J., Md. Host: *Tomostethus multicinctus* (Roh.).
Oocenteter tomostethi Cushman, 1935. Wash. Acad. Sci. Jour. 25: 556. ♂ ♀.
Biology: McConnell, 1938. Ent. Soc. Wash. Proc. 40: 23.

Genus RHORUS Foerster

Subgenus RHORUS Foerster

Rhorus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 195.
Type: ***Tryphon mesoxanthus*** Gravenhorst. Included by Woldstedt, 1877.
Dolichoblastus Strobl, 1903. Naturh. Ver. Steiermark Mitt. 39: 52.
Type: ***Monoblastus (Dolichoblastus) flavopictus*** Strobl. Monob.

clapini (Provancher). Maine, Que., Wash. Host: *Trichiosoma bicolor* Nort.
Tryphon Clapini Provancher, 1876. Nat. Canad. 8: 327. "♀" = ♂.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 256.

Subgenus CYPHANZA Cameron

Monoblastus of authors, not of Hartig.
Cyphanza Cameron, 1909. Bombay Nat. Hist. Soc. Jour. 19: 723.
Type: ***Cyphanza nigra*** Cameron. Monob.

borealis (Ashmead). Alaska (Popof Isl.).
Phthorina (!) ***borealis*** Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 225. ♂.

caliroae (Viereck). Va., Pa. Host: *Caliroa cerasi* (L.).
Monoblastus caliroae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 151. ♂ ♀.
Taxonomy: Cushman, 1915. Ent. Soc. Wash. Proc. 17: 135.

dufresnei (Provancher). Que. to N. C.
Tryphon Dufresnei Provancher, 1875. Nat. Canad. 7: 309, 311. ♂ ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 253.

fusculosus (Davis). Mich.
Trematopygus fusculosus Davis, 1897. Amer. Ent. Soc. Trans. 24: 277. ♂.

hervieuxii (Provancher). Que.
Tryphon Hervieuxii Provancher, 1879. Nat. Canad. 11: 254. ♀.

niger (Ashmead). Alaska (Popof Isl.).
Monoblastus niger Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 213. ♂.

nigratus (Dalla Torre). Que., N. Y., Pa., N. C., Mich. Host: *Caliroa cerasi* (L.).
Mesoleius niger Provancher, 1883. Nat. Canad. 14: 9. ♀. Preocc.
Mesoleius nigratus Dalla Torre, 1901. Cat. Hym., v. 2, p. 263. N. name.
Trematopygus eriocampoididis Cushman, 1915. Ent. Soc. Wash. Proc. 17: 135. ♂ ♀.

obscurellus (Cresson). Calif.
Erromenus obscurellus Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 373. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 261. ♂ ♀.

pilosus (Davis). Mont., Wash. (Mt. Rainier at 5500 ft.).
Eryma pilosa Davis, 1897. Amer. Ent. Soc. Trans. 24: 274. ♂.

punctifrons (Davis). Tex.
Monoblastus punctifrons Davis, 1897. Amer. Ent. Soc. Trans. 24: 261. ♀.

tristis (Provancher). Que., Ont., Maine.
Erromenus tristis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym. p. 110. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 260. ♀.

varifrons (Cresson). Maine and Que. to Va., west to Alta. Transit. Zone.
Tryphon varifrons Cresson, 1868. Amer. Ent. Soc. Trans. 2: 104. ♂.
Tryphon scutellaris Cresson, 1868. Amer. Ent. Soc. Trans. 2: 104. ♀.
Tryphon frontalis Cresson, 1868. Amer. Ent. Soc. Trans. 2: 109. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 262. ♂ ♀.

Genus PION Schiødte

Pion Schiødte, 1838. Nat. Tidsskr. 2: 318.
Type: ***Mesoleptus fortipes*** Gravenhorst. Monob.
Catoglyptus Holmgren, 1858. Svenska Vetensk. Akad. Handl. 1: 98, 106.

Type: ***Mesoleptus fortipes*** Gravenhorst. Desig. by Viereck, 1912.

Sympherta Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 196.
Type: ***Tryphon burrus*** Cresson. Desig. by Viereck, 1914.

Stiphrosomus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 198. Preocc.
Type: ***Ichneumon fuscicornis*** Gmelin. Desig. by Viereck, 1914.

Provancherella Dalla Torre, 1901. Cat. Hym., v. 3, p. 305.
Type: (***Baryceros rhopalocerus*** Provancher) = [***Tryphon***] ***burrus*** (Cresson). Monob.

Eustiphrosomus Hincks, 1944. Ent. Soc. London, Proc. (B) 13: 34. N. name for *Stiphrosomus*.

aciculatus (Davis). Mont.
Monoblastus aciculatus Davis, 1897. Amer. Ent. Soc. Trans. 24: 262. ♂.

burrus (Cresson). Que. to Ga. Transit. and U. Austr. Zones.
Tryphon burrus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 108. ♀.
Baryceros rhopalocerus Provancher, 1875. Nat. Canad. 7: 269. ♂.
Mesoleptus largus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 98. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 252, 278. ♂ ♀.

clinatus (Walley). Alta. (Banff).
Stiphrosomus clinatus Walley, 1937. Canad. Ent. 69: 190. ♀.

femoratus (Davis). Colo.
Catoglyptus femoratus Davis, 1898. Amer. Ent. Soc. Trans. 24: 310. ♂ ♀.

fucatus fucatus (Cresson). Atlantic to Rocky Mts. in Transit. and U. Austr. Zones.
Mesoleptus fucatus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 99. ♀.
Mesoleptus erectus Provancher, 1875. Nat. Canad. 7: 317. ♀.
Mesoleptus laetus Provancher, 1879. Nat. Canad. 11: 231. ♀.
Syndipnus erythrogaster Viereck, 1908. Amer. Ent. Soc. Trans. 33: 385. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 310.

fucatus nigropleuralis (Davis). Pacific to Rocky Mts., in Huds., Canad., and Transit. Zones.
Mesoleptus nigropleuralis Davis, 1898. Amer. Ent. Soc. Trans. 24: 317. ♂.

Tribe CTENOPELMATINI

Members of this tribe are parasites of Pamphiliidae.

Genus CTENOPELMA Holmgren

Ctenopelma Holmgren, 1858. Svenska Vetensk. Akad. Handl. 1: 117.
Type: ***Ctenopelma nigrum*** Holmgren. Desig. by Viereck, 1912.

Diëdrus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 200.
Type: ***Diëdrus areolatus*** Davis. Desig. by Viereck, 1914.

Eryma Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 202. Preocc.
Type: (***Eryma stigium*** Kriechbaumer) = ***Ctenopelma nigrum*** Holmgren. Included by Kriechbaumer, 1891.

Holmgrenia Kriechbaumer, 1877. Zool. Mineral Ver. Regensburg Corres. 31: 146. Preocc.
Type: (***Holmgrenia pulchra*** Kriechbaumer) = ***Ctenopelma xanthostigma*** Holmgren. Monob.

Kriechbaumeria Dalla Torre, 1885. Naturf. Gesell. Graubünden Jahresber. 28: 52. N. name for *Holmgrenia*.

Polyomorus Kriechbaumer, 1894. Ent. Nachr. 20: 60.
Type: ***Polyomorus gagatinus*** Kriechbaumer. Monob.

Neoeryma Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 169. N. name for *Eryma*.

Pseudobanchus Szépligeti, 1911. *In* Wytsman, Gen. Ins., fasc. 114, p. 79.
Type: ***Exetastes nigripennis*** Gravenhorst. Monob.

areolatum (Davis). N. H.
Diedrus areolatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 324. ♀.

crassicorne Walley. Ont. (Smoky Falls on Mattagami R.)
Ctenopelma crassicorne Walley, 1941. Canad. Ent. 73: 168. ♂ ♀.

croceum Walley. Que. to Md., west to Alta.
Ctenopelma croceum Walley, 1941. Canad. Ent. 73: 167. ♂ ♀.

labradorense (Davis). Labrador.
Diedrus labradorensis Davis, 1898. Amer. Ent. Soc. Trans. 24: 324. ♀.

nigricorne (Provancher). Maine, Ont., N. Y., Pa., Md., Alta.
Mesoleptus nigricornis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 99. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 250. ♀.

sanguineum (Provancher). Que., N. Y., N. J., Alta.
Tryphon sanguineus Provancher, 1875. Nat. Canad. 7: 118. ♂.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 248. ♂ ♀.—Davis, 1897. Amer. Ent. Soc. Trans. 24: 251. ♂ ♀.

Genus XENOSCHESIS Foerster

Key to species: Walley, 1935. Canad. Ent. 62: 180.

Subgenus XENOSCHESIS Foerster

Xenoschesis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 158.
Type: *Exetastes fulvipes* Gravenhorst. Included by Jemiller, 1894.
Homobia Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 198.
Type: *Colpotrochia? cinctiventris* Ashmead. Included by Davis, 1897.
Glyptocentrus Kriechbaumer, 1894. Ent. Nachr. 20: 61.
Type: *Exetastes fulvipes* Gravenhorst. Monob.
Polycinetus Thomson, 1894. Opusc. Ent., fasc. 19, p. 1983. Preocc.
Type: *Exetastes fulvipes* Gravenhorst. Desig. by Viereck, 1914.

cinctiventris (Ashmead). Transcont. in Huds. and Canad. Zones.
Colpotrochia? cinctiventris Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 200. "♀" = ♂.
Exetastes abbreviatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 366. ♂ ♀.
Xenoschesis slossonae Cushman, 1915. Ent. Soc. Wash. Proc. 17: 140. ♀.

Subgenus POLYCINETIS Foerster

Polycinetis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 198.
Type: *Notopygus resplendens* Holmgren. Included by Wolstedt, 1877.
Prosmorus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 198.
Type: *Notopygus resplendens* Holmgren. Included by Thomson, 1895.
Erigloea Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 202.
Type: (*Erigloea polita* Kriechbaumer)=*Notopygus resplendens* Holmgren. Desig. by Viereck, 1914.

crassitarsus Walley. Ont. (Lake Nipigon).
Xenoschesis crassitarsus Walley, 1935. Canad. Ent. 67: 181. ♀.

gracilis Cushman. N. H., Alta.
Xenoschesis gracilis Cushman, 1915. Ent. Soc. Wash. Proc. 17:141. ♀.

limatus (Cresson). Que., Conn., N. Y., N. J., Md.
Tryphon? limatus Cresson, 1864. Ent. Soc. Phila. Proc. 3:274. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 307. ♂ ♀.

nitidus Walley. B. C., Wash., Calif., Alta. Transit. Zone.
Xenoschesis nitidus Walley, 1935. Canad. Ent. 67: 180. ♂ ♀.

solitarius (Davis). Mich. (Agricultural College).
Polycinetus solitarius Davis, 1898. Amer. Ent. Soc. Trans. 24: 307. ♀.

Genus HOMASPIS Foerster

Homaspis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 197.
Type: *Mesoleptus rufinus* Gravenhorst. Desig. by Viereck, 1914.

albipes Davis. N. Y.
Homaspis albipes Davis, 1898. Amer. Ent. Soc. Trans. 24: 308. ♀.

interruptus (Provancher). Que.
Paniscus interruptus Provancher, 1874. Nat. Canad. 6:107. ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 225.—Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 43.

nigripes Cushman. N. Y., Colo., Wash.
Homaspis nigripes Cushman, 1915. Ent. Soc. Wash. Proc. 17:134. ♀.

rhadinus Davis. N. H.
Homaspis rhadinus Davis, 1898. Amer. Ent. Soc. Trans. 24: 308. ♀.

slossonae Cushman. Que., Ont., N. H., N. Y., Wash.
Homaspis slossonae Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 15. ♂.

Genus NOTOPYGUS Holmgren

Notopygus Holmgren, 1858. Svenska Vetensk. Akad. Handl. 1: 115.
Type: *Notopygus emarginatus* Holmgren. Desig. by Viereck, 1912.
Key to species: Cushman, 1915. U. S. Natl. Mus. Proc. 48: 511.

cultus (Cresson). Atlantic to 100° W. in Transit. Zone.
Mesoleptus cultus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 99. "♂"=♀.
Prosmosus cymbaformus Davis, 1898. Amer. Ent. Soc. Trans. 24: 309. ♀.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 309. ♀.

excavatus Davis. Nev., Wash. Huds. and Canad. Zones.
Notopygus excavatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 309. ♀.

scutellatus Cushman. Idaho (Cornwall).
Notopygus scutellatus Cushman, 1915. Ent. Soc. Wash. Proc. 17: 134. ♀.

virginiensis Cushman. N. H., N. Y., Md., Va.
Notopygus virginiensis Cushman, 1915. U. S. Natl. Mus. Proc. 48: 511. ♀.

Tribe MESOLEIINI

Subtribe PERILISSINA

Genus OPHELTES Holmgren

Opheltes Holmgren, 1859. Öfvers. Svenska Vetensk. Akad. Förh. 15: 323.
Type: *Ichneumon glaucopterus* Linnaeus. Monob.
Nephopheltes Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 16.
Type: *Nephopheltes japonicus* Cushman. Orig. desig.
Revision: Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 13–17.

glaucopterus flavipennis (Provancher). Atlantic west to Alta., Idaho, and Colo. In Transit. Zone. *O. glaucopterus glaucopterus* (Linnaeus) is European. Male rare. Host: *Cimbex americana* Leach.
Campoplex flavipennis Provancher, 1874. Nat. Canad. 6: 143. ♀.
Biology: Orcutt and Aldrich, 1892. S. Dak. Agr. Expt. Sta. Bul. 30: 5.—Fyles, 1894. Ent. Soc. Ontario Ann. Rpt. 25: 54, 55.
Morphology: Whitmarsh, 1910. Ent. Soc. Amer. Ann. 3: 197, 204–206, 208.

glaucopterus flavipennis var. **barberi** Cushman. Md. (Plummers Isl.).
Opheltes glaucopterus var. *barberi* Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 16. ♀.

Genus PERILISSUS Holmgren

Perilissus Holmgren, 1856. Svenska Vetensk. Akad. Handl. 75: 63.
Type: *Mesoleptus filicornis* Gravenhorst. Monob.
Spanotecnus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 197.
Type: *Mesoleptus filicornis* Gravenhorst. Desig. by Viereck, 1914.
Polyoncus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 197.
Type: *Tryphon erythrocephalus* Gravenhorst. Desig. by Viereck, 1914.

Udenia Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 202.
Type: (*Udenia herrichii* Kriechbaumer)=[*Ichneumon*] *rufoniger* (Gravenhorst). Monob.
Silavoga Cameron, 1911. Transvaal Mus. Ann. 2: 190.
Type: *Silavoga longicornis* Cameron. Monob.

bicolor (Cresson). Mass., Conn., N. Y., Pa., Mich.
Mesoleptus bicolor Cresson, 1864. Ent. Soc. Phila. Proc. 3: 269. ♂.
Prionopoda ruficornis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 198. ♂.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 249. ♂.

coloradensis (Ashmead). Colo., Utah.
Prionopoda coloradensis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 198. ♀.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 303. ♂ ♀.

concolor (Cresson). Atlantic to Ill. in Transit. Zone.
Mesoleptus concolor Cresson, 1864. Ent. Soc. Phila. Proc. 3: 270. ♀.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 304.

decoloratus (Cresson). Atlantic to Idaho, Alta., and Alaska in Transit. and Canad. Zones.
Mesoleptus decoloratus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 265. ♂.
Perilissus southwickii Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 196. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 304. ♂ ♀.

discolor (Cresson). Atlantic to Cont. Divide in Transit. and U. Austr. Zones.
Mesoleptus discolor Cresson, 1864. Ent. Soc. Phila. Proc. 3: 271. ♂.
Mesoleptus unicolor Cresson, 1864. Ent. Soc. Phila. Proc. 3: 271. ♂.
Pyracmon rufum Provancher, 1882. Nat. Canad. 13: 365. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 253, 303.

frontosus (Davis). Wash.
Labrossyta frontosa Davis, 1897. Amer. Ent. Soc. Trans. 24: 275. ♂ ♀.

fumipennis (Provancher). Que., N. H.
Westwoodia fumipennis Provancher, 1875. Nat. Canad. 7: 329. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 280.

oculatus (Davis). Md., Tex.
Oetophorus oculatus Davis, 1897. Amer. Ent. Soc. Trans. 24: 252. ♀.

opulentus (Davis). N. H., N. Y., N. J.
Erigloea opulenta Davis, 1897. Amer. Ent. Soc. Trans. 24: 275. ♀.

osflavus (Davis). N. Y., Pa., Mich.
Oetophorus osflavus Davis, 1897. Amer. Ent. Soc. Trans. 24: 252. ♀.

Genus ABSYRTUS Holmgren

Absyrtus Holmgren, 1859. Öfvers. Svenska Vetensk. Akad. Förh. 15: 323.
Type: (*Absyrtus luteus* Holmgren)=[*Ichneumon*] *vicinator* (Thunberg). Monob.
Eczetesis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 196.
Type: *Perilissus paniscoides* Ashmead. Included by Ashmead, 1897.
Revision: Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 18–20.

arealis Cushman. N. H., N. Y., Pa., Md.
Absyrtus arealis Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 19. ♂ ♀.

paniscoides (Ashmead). Atlantic to 100° W. in Transit. and U. Austr. Zones.
Perilissus paniscoides Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 197. ♀ (♂ misdet.).

perilissoides Cushman. Conn., Ohio, Okla.
Absyrtus perilissoides Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 19. ♂ ♀.

Genus OETOPHORUS Foerster

Oetophorus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 196.
Type: *Meosleius stretchii* Cresson. Desig. by Viereck, 1914.

Symphobus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 199.
Type: ***Tryphon pleuralis*** Cresson. Included by Davis, 1898.

nasoni Davis. Ill., Mich.
Oetophorus nasoni Davis, 1897. Amer. Ent. Soc. Trans. 24: 251. ♀.

pleuralis (Cresson). Mass., N. Y., N. J., Pa., Md. Transit. and U. Austr. Zones.
Tryphon pleuralis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 275. ♀.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 323. ♀.

stretchii (Cresson). Calif.
Mesoleius stretchii Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 371. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 252. ♂ ?, ♀.

Genus LABROSSYTA Foerster

Labrossyta Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 202.
Type: ***Grypocentrus bimaculatus*** Ashmead. Desig. by Viereck, 1912.
Atithasus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 210.
Type: (***Atithasus stellarius*** Davis)=[***Grypocentrus***] ***bimaculata*** (Ashmead). Included by Davis, 1898.

bimaculata (Ashmead). Atlantic to 100° W. in Transit. and U. Austr. Zones. Early spring.
Grypocentrus bimaculatus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 199. ♀.
Atithasus stellarius Davis, 1898. Amer. Ent. Soc. Trans. 24: 291. ♂ ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 276.

indotata (Davis). Atlantic to 100° W. in Transit. and U. Austr. Zones. Early spring.
Ctenopelma indotata Davis, 1897. Amer. Ent. Soc. Trans. 24: 250. ♂ ♀.

primosa (Davis). Tex., N. H.
Ctenopelma primosa Davis, 1897. Amer. Ent. Soc. Trans. 24: 250. ♂.

Genus LAPHYROSCOPUS Foerster

Laphyroscopus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 197.
Type: ***Tryphon capitatus*** Cresson. Included by Davis, 1898.

capitatus (Cresson). Atlantic to 100° W. in Transit. and U. Austr. Zones.
Tryphon capitatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 281. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 307. ♂ ♀.

longipes (Davis). Tex.
Syndipnus longipes Davis, 1898. Amer. Ent. Soc. Trans. 24: 288. ♀.
Taxonomy: Walley, 1940. Canad. Ent. 72: 136.

Genus LATHROLESTES Foerster

Lathrolestes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 196.
Type: ***Lathrolestes nasoni*** Davis. Desig. by Viereck, 1914.
Homalomma Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 198.
Type: ***Homalomma caliroae*** Rohwer. Desig. by Rohwer, 1915.
Ecclinops Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 201.
Type: ***Tryphon orbitalis*** Gravenhorst. Desig. by Viereck, 1914.
Lathrolestus Thomson, 1883. Opusc. Ent., fasc. 9, pp. 911, 916.
Type: ***Tryphon clypeatus*** Zetterstedt. Desig. by Viereck, 1912.
Luphyroscopus Thomson, 1883. Opusc. Ent., fasc. 9, p. 915.
Type: (***Tryphon gorskii*** Ratzeburg)=[***Mesoleptus***] ***luteolator*** (Gravenhorst). Desig. by Viereck, 1914.
Tryphonopsis Brauns, 1898. Arch. Ver. Freunde Naturgesch. Mecklenburg 51: 62.
Type: ***Tryphonopsis ensator*** Brauns. Monob.

caliroae (Rohwer). Va. (Falls Church). Hosts: *Caliroa* sp. on *Nyssa sylvatica; Caliroa* sp. on *Quercus prinus.*
Homalomma caliroae Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 218. ♀.
Homa'omma eriocampoides Rohwer, 1915. U. S. Natl. Mus. Proc. 29: 219. ♀.

cinctus Townes. Transcont. in Transit. and Canad. Zones.
Phytodietus? truncatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 371. ♀. Preocc.
Lathrolestes **cinctus** Townes, 1945. Amer. Ent. Soc. Mem. 11: 502. N. name.

constrictus (Provancher). Que.
Phygadeuon constrictus Provancher, 1882. Nat. Canad. 13: 336, 357. ♂.
Taxonomy: Provancher, 1886. Addit. Corr. Faune Ent. Canad Hym., p. 53. ♂ ♀.

iladus (Davis). N. Y., R. I.
Spanotecnus iladus Davis, 1898. Amer. Ent. Soc. Trans. 24: 303. ♂.

luteolator (Gravenhorst). Atlantic west to Wis. in Transit. Zone; Europe.
Mesoleptus luteolator Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 42. ♂.
Polyoncus suburbe Davis, 1898. Amer. Ent. Soc. Trans. 24: 306. ♀.

mentalis (Davis). N. H., N. C.
Polyoncus mentalis Davis, 1898. Amer. Ent. Soc. Trans. 24: 306. ♀.

mnemonicae (Rohwer). Va. (Falls Church). Host: ?*Mnenomica auricyanea* (Wlsm.).
Sympherta mnemonicae Rohwer, 1914. Ent. Soc. Wash. Proc. 16: 141. ♂ ♀.
Taxonomy: Cushman, 1933. U. S. Natl. Mus. Proc. 82 (14): 12.

nasoni Davis. Sask., Alta., Mont., Colo.
Lathrolestes nasoni Davis, 1897. Amer. Ent. Soc. Trans. 24: 264. ♂ ♀.
Lathrolestes similis Davis, 1897. Amer. Ent. Soc. Trans. 24: 265. ♀.

obscurellus (Davis). Conn., N. Y.
Spanotecnus obscurellus Davis, 1898. Amer. Ent. Soc. Trans. 24: 304. ♀.

pictus Cushman. S. Dak. (Brookings).
Lathrolestes pictus Cushman, 1933. U. S. Natl. Mus. Proc. 82 (14): 11. ♂ ♀.

platynus (Davis). Mich. (Agricultural College).
Polyoncus platynus Davis, 1898. Amer. Ent. Soc. Trans. 24: 306. ♂.
Polyoncus unicus Davis, 1898. Amer. Ent. Soc. Trans. 24: 306. ♀.

rufigaster Cushman. Maine, Ont., N. C. Host: *Metallus rubi* Forbes.
Lathrolestes rufigaster Cushman, 1933. U. S. Natl. Mus. Proc. 82 (14): 13. ♂ ♀.

scutellatus (Ashmead). D. C.
Prionopoda scutellata Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 441. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 278.

tomostethi (Cushman). Mass., N. Y., Ohio. Host: *Tomostethus multicinctus* Rohw.
Perilissus tomostethi Cushman, 1935. Wash. Acad. Sci. Jour. 25: 558. ♂ ♀.

truncatus (Provancher). B. C. (Vancouver).
Mesochorus truncatus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 365. ♀.

visscheri DeGant. Que., Ont., N. Y., Md. Host: *Metallus rubi* Forbes.
Lathrolestes visscheri DeGant, 1933. U. S. Natl. Mus. Proc. 82 (11): 5. ♂ ♀.
Lathrolestes metalli Cushman, 1933. U. S. Natl. Mus. Proc. 82 (14): 10. ♂ ♀.

Genus SYNOECETES Foerster

Synoecetes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 203.
Type: (*Mesoleptus sedulus* Cresson)=[*Tryphon*] *festivus* (Cresson). Desig. by Viereck, 1914.
Polyrhysia Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 204.
Type: *Tryphon tenuicornis* Gravenhorst. Desig. by Viereck, 1914.
Polyrhysius Thomson, 1894. Opusc. Ent., fasc. 19, p. 1999.
Type: *Tryphon tenuicornis* Gravenhorst. Desig. by Viereck, 1914.

festivus (Cresson). Atlantic to Cont. Divide in Transit. Zone. Spring.
Tryphon festivus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 279. "♂"=♀.
Mesoleptus sedulus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 97. "♂"=♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 279. ♂ ♀.

Genus GNESIA Forester

Gnesia Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 202.
Type: ***Gnesia caliroae*** Rohwer. Included by Rohwer, 1915.

caliroae Rohwer. Va. (Falls Church). Host: *Caliroa* sp. on *Nyssa sylvatica.*
Gnesia caliroae Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 220. ♀.

rotundata (Davis). N. H., N. J.
Trematopygus rotundatus Davis, 1897. Amer. Ent. Soc. Trans. 24: 277. ♂ ♀.

Subtribe MESOLEIINA

Genus PROTARCHUS Foerster

Protarchus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 201.
Type: (***Tryphon rufus*** Gravenhorst)=[***Ichneumon***] ***testatorius*** (Thunberg). Included by Woldstedt, 1877.
Otlophorus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 202.
Type: ***Tryphon vepretorum*** Gravenhorst. Desig. by Viereck, 1914.
Neales Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 204.
Type: ***Tryphon vepretorum*** Gravenhorst. Included by Pfankuch, 1906.
Zacalles Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 204.
Type: ***Zacalles magnus*** Davis. Included by Davis, 1898.
Protarchoides Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 25.
Type: ***Protarchoides longipes*** Cushman. Orig. desig.
Revision: Walley, 1938. Canad. Ent. 70: 230–232.

longipes (Cushman). Transcont. in Canad. Zone. Host: *Trichiosoma* sp.
Protarchoides longipes Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 26. ♀.
Protarchoides mandibularis Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 9. ♀.

magnus (Davis). N. Y., N. H.
Zacalles magnus Davis, 1898. Amer. Ent. Soc. Trans. 24: 283. ♀.
Taxonomy: Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 8.

mellipes (Provancher). Ont., Alta.
Coleocentrus mellipes Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 113. ♂.
Protarchoides pallipes Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13): 15. ♀.

pallidicornis (Walley). Ont. (near Kapuskasing).
Protarchoides pallidicornis Walley, 1938. Canad. Ent. 70: 231. ♀.

Genus HIMERTA Foerster

Himerta Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 200.
Type: (***Himerta bisannulatus*** Thomson)=[***Mesoleptus***] ***defectiva*** (Gravenhorst). Desig. by Viereck, 1914.
Clepsiporthus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 200.
Type: ***Mesoleius? rubiginosus*** Cresson. Desig. by Viereck, 1914.
Himertus Thomson, 1883. Opusc. Ent., fasc. 9, p. 926.
Type: (***Euryproctus*** (***Himertus***) ***bisannulatus*** Thomson)=[***Mesoleptus***] ***defectiva*** (Gravenhorst). Desig. by Viereck, 1914.
Neoprotarchus Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 10.
Type: ***Neoprotarchus ater*** Cushman. Orig. desig.

annulata (Davis). Mich. (Gaylord).
Lampronota annulata Davis, 1895. Amer. Ent. Soc. Trans. 21: 31. ♂.

atra (Cushman). Alta., Calif.
Neoprotarchus ater Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 10. "♂"=♀.

flavida (Davis). N. H., Mich., S. Dak., Alta.
Clepsiporthus flavidus Davis, 1898. Amer. Ent. Soc. Trans. 24: 326. ♀.
Himertus dakota Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13): 14. ♂ ?, ♀.

rubiginosa (Cresson). B. C., Alta., Wash., Calif.
Mesoleius? rubiginosus Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 372. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 326. ♂ ♀.—Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13): 15.

Genus MESOLEIUS Holmgren

Mesoleius Holmgren, 1856. Svenska Vetensk. Akad. Handl. 75: 69.
Type: *Tryphon aulicus* Gravenhorst. Desig. by Viereck, 1912.
Alexeter Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 199.
Type: *Mesoleptus (Alexeter) ruficornis* Gravenhorst. Desig. by Viereck, 1914.
Lagarotis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 205.
Type: *Ichneumon semicaligatus* Gravenhorst. Desig. by Viereck, 1914.
Oneista Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 207.
Type: (*Oneista bohemani* Kriechbaumer)=*Mesoleius ustulatus* Holmgren. Included by Kriechbaumer, 1892.
Aeolometis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 207.
Type: *Scolobates italicus* Gravenhorst. Included by Dalla Torre, 1901.
Scopesis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 209.
Type: *Mesoleius guttiger* Holmgren. Desig. by Viereck, 1914.
Tachyporthus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 210.
Type: *Scolobates italicus* Gravenhorst. Included by Kriechbaumer, 1901.
Spudaea Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 211. Preocc.
Type: *Trematopygus (Spudaea) clypearis* Brischke. Included by Brischke, 1888.
Holmgrenia Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 213.
Type: *Holmgrenia lanceolata* Davis. Desig. by Viereck, 1914.
Cryptocentrus Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 156. Preocc.
Type: *Tryphon? submarginatus* Cresson. Monob.
Spudaeus Thomson, 1883. Opusc. Ent., fasc. 9, p. 932. Preocc.
Type: *Tryphon leucostomus* Gravenhorst. Desig. by Viereck, 1914.
Lagarotus Thomson, 1892. Opusc. Ent., fasc. 17, pp. 1880, 1881.
Type: *Ichneumon semicaligatus* Gravenhorst. Desig. by Viereck, 1914.
Scopesus Thomson, 1894. Opusc. Ent., fasc. 19, p. 2028.
Type: *Mesoleius guttiger* Holmgren. Desig. by Viereck, 1914.
Aelometis Thomson, 1894. Opusc. Ent., fasc. 19, p. 2034.
Type: *Scolobates italicus* Gravenhorst. Monob.
Hyposyntactus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 217.
Type: (*Hyposyntactus flavifrons* Ashmead)=[*Mesoleptus*] *vancouverensis* (Dalla Torre). Monob.
Alfkenia Pfankuch, 1906. Ztschr. System. Hym. Dipt. 6: 89.
Type: *Ichneumon integrator* Mueller. Monob.
Habrodemus Schmiedeknecht, 1913. Opusc. Ent., fasc. 35, p. 2799; fasc. 36, p. 2842.
Type: *Mesoleius elongatus* Brischke. Monob.
Prospudaea Hincks, 1914. Ent. Soc. London. Proc. (B) 13: 35. N. name for *Spudaea*.

affinis (Ashmead). Alaska (St. Paul Isl.).
Calliphrurus affinis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 221. ♀.

alaskensis (Ashmead). Alaska (Popof Isl.).
Calliphrurus alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 220. ♂ ♀.

antennatus Provancher. Que., N. Y.
Mesoleius antennatus Provancher, 1877. Nat. Canad. 9: 15. ♀.

Mesoleius antennatus Provancher, 1879. Nat. Canad. 11: 260. ♀. Preocc. Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 321. ♀.

articularis Davis, Wash., Sask. Huds. Zone.
Mesoleius articularis Davis, 1898. Amer. Ent. Soc. Trans. 24: 300. ♀.

audax Davis. N. H.
Mesoleius audax Davis, 1898. Amer. Ent. Soc. Trans. 24: 299. ♀.

canaliculatus (Provancher). Atlantic to Cont. Divide in Canad. and Transit. Zones.
Paniscus canaliculatus Provancher, 1874. Nat. Canad. 6: 105. ♂.
Paniscus albotarsatus Provancher, 1874. Nat. Canad. 6: 106. ♂.
Biology: Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 322. ♂ ♀.—Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 42, 43.

chicoutimiensis Provancher. Que. (Chicoutimi).
Mesoleius Chicoutimiensis Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 368. ♀.

clypeatus (Ashmead). Alaska.
Calliphrurus clypeatus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 220. ♂ ♀.

comeaui Townes. Que.
Tryphon canaliculatus Provancher, 1875. Nat. Canad. 7: 116. ♀. Preocc.
Mesoleius comeaui Townes, 1945. Amer. Ent. Soc. Mem. 11: 511. N. name.

compos (Davis). "Canada."
Alexeter compos Davis, 1898. Amer. Ent. Soc. Trans. 24: 321. ♂.

conformus Davis. N. H., R. I., Alta.
Mesoleius conformus Davis, 1898. Amer. Ent. Soc. Trans. 24: 300. ♂ ♀.

confusus (Ashmead). Alaska (Kukak Bay).
Calliphrurus confusus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 223. ♂.

contractus Davis. Alta.
Mesoleius contractus Davis, 1898. Amer. Ent. Soc. Trans. 24: 297. ♀.

cressoni (Davis). Tex.
Holmgrenia cressoni Davis, 1898. Amer. Ent. Soc. Trans. 24: 293. ♀.

difficilis (Davis). Wash., Colo. Canad. Zone.
Rhaestes difficilis Davis, 1898. Amer. Ent. Soc. Trans. 24: 312. ♂.

euurae (Ashmead). Calif. (Placer Co.). Host: *Nematus resinicola* Marl.
Bassus euurae Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 440. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 294.

excavatus (Provancher). Que.
Tryphon excavatus Provancher, 1875. Nat. Canad. 7: 310, 311. ♂.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 254.

fidelis Davis. N. H., N. Y., N. C., Wash. Canad. and Transit. Zones.
Mesoleius fidelis Davis, 1898. Amer. Ent. Soc. Trans. 24: 297. ♂ ♀.

fissus Provancher. Que., N. Y., R. I.
Mesoleius fissus Provancher, 1879. Nat. Canad. 11: 257. ♂.

frigidus (Ashmead). Alaska (Popof Isl.).
Calliphrurus frigidus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 222. ♂.

groenlandicus Roman. Greenland.
Mesoleius groenlandicus Roman, 1930. Ann. Mag. Nat. Hist. (10) 5: 285. ♂.

honestus (Cresson). Atlantic west to Ill. in Transit. and U. Austr. Zones.
Mesoleptus honestus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 98. ♂ ♀.
Mesoleptus albifrons Cresson, 1868. Amer. Ent. Soc. Trans. 2: 98. "♀"=♂.
Biology: Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 316, 321. ♂ ♀.

incessans (Davis). N. H.
Rhaestes incessans Davis, 1898. Amer. Ent. Soc. Trans. 24: 311. ♀.

innoxius (Cresson). Pacific to Cont. Divide in Huds., Canad., and Transit. Zones.
Mesoleptus innoxius Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 371. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 317. ♂ ♀.

insidiosus (Cresson). Atlantic to Cont. Divide in Transit. Zone.
Mesoleptus insidiosus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 98. ♂.
Mesoleius convergens Davis, 1898. Amer. Ent. Soc. Trans. 24: 296. ♀.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 316.

insularis (Ashmead). Alaska, Wash.
Zootrephes insularis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 225. ♂.

intimatus (Davis). Wash., Colo.
Mesoleptus intimatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 317. ♂.

kukakensis (Ashmead). Alaska (Kukak Bay).
Calliphrurus kukakensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 222. ♀.

lanceolatus (Davis). N. Y., Ont., Colo., Wash. Transit. and Canad. Zones.
Holmgrenia lanceolata Davis, 1898. Amer. Ent. Soc. Trans. 24:294. ♂ ♀.

lituratus var. **sahlbergi** Woldstedt. Europe; reported from Labrador.(*M. lituratus lituratus* Holmgren is European.)
Mesoleius Sahlbergi Woldstedt, 1874. Bidrag till Kännedom af Finlands Natur och Folk 21: 44. ♀.

lucens (Provancher). Atlantic to Cont. Divide in Canad. and Transit. Zones.
Campoplex lucens Provancher, 1874. Nat. Canad. 6: 144. ♂.
Mesoleptus riparius Davis, 1898. Amer. Ent. Soc. Trans. 24: 315. ♂ ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 228.

luteifrons (Cresson). Alta. (Bilby, Great Slave Lake).
Mesoleptus luteifrons Cresson, 1868. Amer. Ent. Soc. Trans. 2: 99. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 322. ♂.

minor (Ashmead). Alaska (St. Paul Isl.).
Calliphrurus minor Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 221. ♂ ♀.

nigralis (Davis). N. H. (Franconia).
Mesoleptus nigralis Davis, 1898. Amer. Ent. Soc. Trans. 24: 314. ♀.

nigropictus (Davis). Que. to N. C., west to Alaska, Alta., and Colo.
Lampronota nigropicta Davis, 1895. Amer. Ent. Soc. Trans. 21: 31. ♂.
Mesoleptus pictus (as *M. distinctus* in key) Davis, 1898. Amer. Ent. Soc. Trans. 24: 315. ♂ ♀.
Scopesis monticola Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 26. ♀.

notatus (Davis). Wash., Oreg., Alta. Transit. and Canad. Zones.
Alexeter notatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 321. ♂.

nuperus Davis. N. H., N. Y., Idaho, Wash., Oreg.
Mesoleius nuperus Davis, 1898. Amer. Ent. Soc. Trans. 24: 296. ♀.
Mesoleius idahoensis Davis, 1898. Amer. Ent. Soc. Trans. 24: 297. ♂ ♀.

ovalis (Davis). Transcont. in Transit. Zone.
Spudaea ovale Davis, 1898. Amer. Ent. Soc. Trans. 24: 291. ♂ ♀.

perplexus (Ashmead). Alaska (Popof Isl.).
Calliphrurus perplexus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 222. ♂.

pertinax Davis. Maine, N. H.
Mesoleius pertinax Davis, 1898. Amer. Ent. Soc. Trans. 24: 299. ♂ ♀.

picens (Davis). Colo., Alta.
Holmgrenia picens Davis, 1898. Amer. Ent. Soc. Trans. 24: 294. ♀.

provancheri (Cushman). Que., N. Y., Pa., Mich. Transit. Zone.
Mesoleptus variabilis Provancher, 1883. Nat. Canad. 14: 7. ♀. Preocc.
Mesoleptus provancheri Cushman, 1917. Ent. Soc. Wash. Proc. 19: 165. N. name.

pulchranotus Davis. Tex.
Mesoleius pulchranotus Davis, 1898. Amer. Ent. Soc. Trans. 24: 298. ♂.

robustus (Provancher). Que.
Eclytus robustus Provancher, 1883. Nat. Canad. 14: 8. ♀.

rufopectus (Provancher). Que. (St. Gertrude).
Tryphon rufopectus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 367. ♂.

scapularis (Cresson). N. H., R. I., Conn., N. Y., N. J., Md. Transit. and U. Austr. Zones.
Mesoleptus scapularis Cresson, 1868. Amer. Ent. Soc. Trans. 2: 98. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 296. ♂ ♀.

sexcarinatus (Ashmead). Alaska.
Polyterus sexcarinatus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 217. ♀.

stejnegeri Ashmead. Alaska (Bering Isl.).
Mesoleius stejnegeri Ashmead, 1899. Fur Seals and Fur Seal Isl., v. 4, p. 337. ♀.

striatus Davis. Maine, N. H., Que. Canad. Zone.
Mesoleius striatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 299. ♂ ♀.
Dizemon regalis Davis, 1898. Amer. Ent. Soc. Trans. 24: 312. ♀.

submarginatus (Cresson). Transcont. in Transit. and Canad. Zones.
Tryphon? submarginatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 274. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 298. ♂ ♀.

tardus (Provancher). Que., Colo., Alta., Wash. Canad. Zone.
Tryphon tardus Provancher, 1875. Nat. Canad. 7: 119. ♀.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 314. ♀.

tarsalis (Cresson). R. I., Conn., N. Y., Md., N. C., Alta. Transit. and U. Austr. Zones.
Tryphon tarsalis Cresson, 1868. Amer. Ent. Soc. Trans. 2: 106. ♂ ♀.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 293. ♀.
Biology: Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.

tenthredinis Morley. Transcont. in Canad. Zone. Introduced from Europe. Hosts: *Diprion* (*Gilpinia*) *hercyniae* (Htg.); *Pristiphora erichsonii* (Htg.).
Mesoleius tenthredinis Morley, 1912. Canad. Dept. Agr., Expt. Farms Bul. (2nd. ser.) 10: 26. ♂ ♀.
Mesoleius romani Teunissen, 1945. Zool. Meded. 25: 209. ♂ ♀. N. syn.
Biology: Hewitt, 1912. Canad. Dept. Agr., Expt. Farms Bul. (2nd. ser.) 10: 25–28.—Hewitt, 1913. Ent. Soc. Ontario Ann. Rpt. 42: 37.—Hewitt, 1917. Agr. Gaz. Canada 4: 355–357.—Swaine, 1928. Pulp and Paper Mag. Canada 26: 501.

vancouverensis (Dalla Torre). Wash., Oreg., Alta., Alaska. Transit. Zone.
Mesoleius? laetus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 372. ♂. Preocc.
Mesoleptus vancouverensis Dalla Torre, 1901. Cat. Hym., v. 3, p. 365. N. name.
Hyposyntactus flavifrons Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 217. ♂.

visoris Davis. N. H., N. Y., N. C., Mich., Sask., Alta., Wash.
Mesoleius visoris Davis, 1898. Amer. Ent. Soc. Trans. 24: 296. ♂ ♀.
Mesoleius convexus Davis, 1898. Amer. Ent. Soc. Trans. 24: 298. ♀.

zebratus (Davis). Atlantic to 100° W. in Transit. Zone.
Mesoleptus zebratus Davis, 1898. Amer. Ent. Soc. Trans. 24: 316. ♂ ♀.

Genus LAMACHUS Foerster

Adexioma Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 206.
Type: *Adexioma angularia* Davis. Included by Davis, 1897.
Lamachus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 206.
Type: *Tryphon lophyrorum* Hartig. Desig. by Viereck, 1914.
Torocampus Schmiedeknecht, 1913. Opusc. Ichn., fasc. 35, p. 2797.
Type: *Tryphon eques* Hartig. Monob.

The species of *Lamachus* are parasites of Diprionidae.

angularius (Davis). Oreg., Wash. Host: *Neodiprion tsugae* Midd.
Adexioma angularia Davis, 1898. Amer. Ent. Soc. Trans. 24: 284. ♀.
Lamachus oregon Cushman, 1939. Wash. Acad. Sci. Jour. 29: 401. ♂ ♀.
Biology: Furniss and Dowden, 1941. Jour. Econ. Ent. 34: 49, 51.

contortionis Davis. Maine to Va. Hosts: *Diprion hercyniae* (Htg.); *Neodiprion abietis* (Harr.); *N. lecontei* (Fitch).
Lamachus? contortionis Davis, 1898. Amer. Ent. Soc. Trans. 24: 284. ♀.
Lagarotis diprioni Rohwer. U. S. Natl. Mus. Proc. 49: 217. ♂ ♀.
Taxonomy: Aldrich, 1921. Smithsn. Inst. Ann. Rpt. for 1919, p. 378, pl. 11.

lophyri (Ashmead). N. B., N. H. Hosts: *Neodiprion abietis* (Harr.); *N. abbotii* (Leach).
Neoeryma lophyri Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 169. ♂ ♀.

ruficoxalis (Cushman). Man. Host: *Diprion hercyniae* (Htg.).
Labrossyta ruficoxalis Cushman, 1919. Ent. Soc. Wash. Proc. 21: 118. ♀.
Lamachus ruficornis Cushman, 1939. Wash. Acad. Sci. Jour. 29: 400. *Lapsus* for *ruficoxalis*.

tsugae Cushman. Oreg. Host: *Neodiprion tsugae* Midd.
Lamachus tsugae Cushman, 1939. Wash. Acad. Sci. Jour. 29: 401. ♂ ♀.
Biology: Furniss and Dowden, 1941. Jour. Econ. Ent. 34: 49, 51.

virginianus (Rohwer). Va., N. C. Host: *Neodiprion lecontei* (Fitch).
Lagarotis virginianus Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 218. ♂.

Genus SAOTIS Foerster

Saotis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 210.
Type: *Mesoleius* (*Saotus*) *brevispina* Thomson. Desig. by Viereck, 1914.
Saotus Thomson, 1883. Opusc. Ent., fasc. 9, p. 933.
Type: *Mesoleius* (*Saotus*) *brevispina* Thomson. Desig. by Townes, 1945.

clypeatus (Ashmead). Alaska, Wash. Huds. Zone.
Exolytus clypeatus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 168. ♀.

hoeli Roman. Greenland.
Saotis Hoeli Roman, 1933. Skrifter om Svalbard og Ishavet 53: 9. ♀.
Taxonomy: Roman, 1934. Ann. Mag. Nat. Hist. (10) 14: 609. ♀.

mellipes (Provancher). Que.
Echthrus mellipes Provancher, 1874. Nat. Canad. 6: 60. ♂ ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 258.—Davis, 1898. Amer. Ent. Soc. Trans. 24: 298.

Tribe EURYPROCTINI

Genus SYNOMELIX Foerster

Zemiophora Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 203.
Type: *Tryphon scutulatus* Hartig. Included by Dalla Torre, 1901.
Synomelix Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 206.
Type: *Synomelix sieboldii* Kriechbaumer. Included by Kriechbaumer, 1897.
Zemiophorus Thomson, 1894. Opusc. Ent., fasc. 19, p. 2000.
Type: *Tryphon scutulatus* Hartig. Monob.

fasciata (Davis). Mass.
Dialges fasciatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 286. ♂.

longitarsis (Ashmead). Alaska (Kukak Bay).
Synchnoportus longitarsis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 216. ♂.

obesa (Davis). Que., R. I., N. Y., Pa., Va., N. C.
Stiphrosomus obesa Davis, 1898. Amer. Ent. Soc. Trans. 24: 312. ♀.

signatipes (Cresson). Hudson Bay Territory.
Tryphon signatipes Cresson, 1868. Amer. Ent. Soc. Trans. 2: 105. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 277. ♀.

Genus DIALGES Foerster

Trophoctonus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 206.

Type: ***Tryphon xanthostomus*** Gravenhorst. Desig. by Viereck, 1914.

Pantorhaestes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 206.
Type: ***Tryphon xanthostomus*** Gravenhorst. Desig. by Viereck, 1914.

Dialges Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 206.
Type: ***Dialges frontalis*** Davis. Desig. by Viereck, 1914.

Revision: Davis, 1898. Amer. Ent. Soc. Trans. 24: 285–286.

frontalis Davis. Transcont. in Transit., Canad., and Huds. Zones.
Dialges frontalis Davis, 1898. Amer. Ent. Soc. Trans. 24: 285. ♂ ♀.

rivalis Davis. Atlantic to Cont. Divide in Transit. Zone.
Dialges frontalis var. ***rivalis*** Davis, 1898. Amer. Ent. Soc. Trans. 24: 286. ♀.

tricolor Davis. Atlantic to Cont. Divide in Transit. Zone.
Dialges frontalis var. ***tricolor*** Davis, 1898. Amer. Ent. Soc. Trans. 24: 285. ♂ ♀.

Genus MESOLEPTIDEA Viereck

Mesoleptus of authors, not of the genotype.
Mesoleptidea Viereck, 1912. Ent. Soc. Wash. Proc. 14: 176.
Type: ***Mesoleptus cingulatus*** Gravenhorst. Orig. desig.

decens (Cresson). Maine and Que. to Va. Transit. Zone.
Mesoleptus decens Cresson, 1868. Amer. Ent. Soc. Trans. 2: 101. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 316. ♂ ♀.

kodiakensis (Ashmead). Alaska (Kodiak).
Hypocryptus kodiakensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 208. ♂.

unalaskae (Ashmead). Alaska (Unalaska).
Mesoleptus unalaskae Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 210. ♀.

Genus POLYTERUS Foerster

Sychnoportus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 208.
Type: (***Sychnoportus rufopectus*** Ashmead)=[***Mesoleius***] ***olympiae*** (Ashmead). Included by Ashmead, 1897.

Listrota Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 209.
Type: ***Phobetes canadensis*** Harrington. Included by Davis, 1898.

Polyterus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 209.
Type: ***Polyterus franconiaensis*** Davis. Included by Davis, 1898.

Camponastes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 212.
Type: ***Camponastes basilicus*** Davis. Included by Davis, 1898.

basilicus (Davis). Vt., Wash.
Camponastes basilicus Davis, 1898. Amer. Ent. Soc. Trans. 24: 292. ♀.

canadensis (Harrington). B. C., Wash. Transit. and Canad. Zones.
Phobetes canadensis Harrington, 1894. Canad. Ent. 26: 248. ♀.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 289. ♀.

consors (Davis). Que., N. H.
Mesoleius consors Davis, 1898. Amer. Ent. Soc. Trans. 24: 297. ♀.

franconiaensis Davis. N. H., R. I.
Polyterus franconiaensis Davis, 1898. Amer. Ent. Soc. Trans. 24: 289. ♀.

olympiae (Ashmead). Transcont. in Transit. and Canad. Zones. Hosts: *Nematus alnivora* Roh.; *N. ventralis* Say.
Mesoleius olympiae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 199. ♀.
Sychnoportus rufopectus Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 169. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 290. ♂ ♀.

virginiensis (Ashmead). Que. to N. C. in Transit. Zone.
Bassus virginiensis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 440. ♀.
Mesoleius puritanicus Davis, 1898. Amer. Ent. Soc. Trans. 24: 299. ♀.
Polyterus albipectus Walley, 1937. Canad. Ent. 69: 192. ♂ ♀.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 294. ♀.

Genus SYNDIPNUS Foerster

Polypystis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 208.
Type: ***Tryphon lateralis*** Gravenhorst. Desig. by Viereck, 1914.
Syndipnus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 209.
Type: ***Euryproctus (Syndipnus) macrocerus*** Thomson. Desig. by Viereck, 1914.
Tlemon Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 209.
Type: ***Tlemon delicatus*** Ashmead. Included by Ashmead, 1902.
Neastus Holmgren, 1883. Ent. Tidskr. 4: 154.
Type: ***Neastus laeviceps*** Holmgren. Monob.
Anaglymmus Roman, 1914. Arkiv. för Zool. 9 (2): 3.
Type: ***Anaglymmus incisus*** Roman. Desig. by Viereck, 1921.

Revision: Walley, 1940. Canad. Ent. 72: 135–145.—Additions: Walley, 1945. Canad. Ent. 77: 41–43.

alaskensis Walley. Alaska (Mt. McKinley Natl. Pk.).
Syndipnus alaskensis Walley, 1940. Canad. Ent. 72: 138. ♂ ♀.

conformis (Holmgren). Sask. (Cut Knife); Europe.
Trematopygus conformis Holmgren, 1855. Svenska Vetensk. Akad. Handl. 1: 183. ♂.

Taxonomy: Walley, 1945. Canad. Ent. 77: 43.

delicatus (Ashmead). Alaska, Sask.
Tlemon delicatus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 216. ♂.

gaspesianus (Provancher). Transcont. in Canad. Zone. Host: *Pikonema alaskensis* (Roh.).
Tryphon gaspesianus Provancher, 1879. Nat. Canad. 11: 252. ♀.

lateralis (Gravenhorst). Transcont. in Transit. Zone; Europe. Host: *Pachynematus affinis* Marl.
Tryphon lateralis Gravenhorst, 1829. Ichn. Europaea, v. 1, p. 690.

pannicularius (Holmgren). Alaska; Europe.
Mesoleius pannicularius Holmgren, 1855. Svenska Vetensk. Akad. Handl. 1: 178. ♀.

phygadeuontoides Walley. Man. (Churchill).
Syndipnus phygadeuontoides Walley, 1945. Canad. Ent. 77: 42. ♀.

probatus Walley. N. Y., Ont.
Syndipnus probatus Walley, 1940. Canad. Ent. 72: 144. ♂ ♀.

rubiginosus Walley. P. E. I., N. B., Que., Man., Sask. Host: *Pikonema alaskensis* (Roh.); *P. dimmockii* (Cress.).
Syndipnus rubiginosus Walley, 1940. Canad. Ent. 72: 140. ♂ ♀.

ungavae Walley. Que. (Port Burwell).
Syndipnus ungavae Walley, 1940. Canad. Ent. 72: 139. ♀.

Genus HYPAMBLYS Foerster

Hypamblys Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 212.
Type: ***(Mesoleius transfuga*** Holmgren)=[***Tryphon***] ***albopictus*** (Gravenhorst). Desig. by Viereck, 1914.

albifacies (Provancher). Ont., N. Y., Mass.
Mesostenus albifacies Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 362. ♀.

albopictus (Gravenhorst). Transcont. in Canad. Zone; Europe. Hosts: *Caliroa cerasi* (L.); *Pristiphora californica* (Marl.).
Tryphon albopictus Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 255. ♂.
Mesoleius transfuga Holmgren, 1855. Svenska Vetensk. Akad. Handl. 1: 164. ♂ ♀.
Calliphrurus popofensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 221. ♀.
Calliphrurus glacialis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 222. ♂.
Mesoleius gymnonychi Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 223. ♀.

conformis (Walley). Transcont. in Canad. and Transit. Zones.
Ipoctonus conformis Walley, 1933. Canad. Ent. 65: 257. ♂ ♀.

Genus IPOCTONINUS Hincks

Ipoctonus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 199. Preocc.
Type: ***Ichneumon chrysostomus*** Gravenhorst. Desig. by Viereck, 1914.
Ipoctoninus Hincks, 1944. Ent. Soc. London Trans. (B) 13: 35. N. name.

egregius (Davis). Wash.
Mesoleptus egregius Davis, 1898. Amer. Ent. Soc. Trans. 24: 317. ♂.

striatus (Davis). Maine, Alta., Wash., Colo.; Mexico. Host: *Ametastegia glabrata* (Fall.).
Mesoleptus striatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 318. ♂.
Mesoleptus torpens Davis, 1898. Amer. Ent. Soc. Trans. 24: 318. ♂ ♀.
Mesoleptus scrupulosus Davis, 1898. Amer. Ent. Soc. Trans. 24: 318. ♂ ♀
Mesoleius balteatus Cushman, 1919. U. S. Natl. Mus. Proc. 55: 541. ♀.
Biology: Cushman, 1926. Ent. Soc. Wash. Proc. 28: pl. 3, fig. 10 B.

unicolor (Provancher). Que., Ont., Alta.
Campoplex unicolor Provancher, 1874. Nat. Canad. 6: 144. ♂.
Mesoleptus uniformis Provancher, 1879. Nat. Canad. 11: 232. N. name.

Genus HYPERALLUS Foerster

Hyperallus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 210.
Type: ***Hyperallus caliroae*** Viereck. Included by Viereck, 1911.

caliroae Viereck. La. Host: *Caliroa amygdalina* Roh.
Hyperallus caliroae Viereck, 1911. U. S. Natl. Mus. Proc. 40: 189. ♂ ♀.
Biology: Cushman, 1911. U. S. Dept. Agr., Bur. Ent. Bul. 97, part 5: 101–102.

virginiensis Townes. N. Y., Va. Host: *Caliroa* sp. on *Quercus rubra.*
Polyterus caliroae Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 221. ♂. Preocc.
Hyperallus virginiensis Townes, 1945. Amer. Ent. Soc. Mem. 11: 528. N. name.

Genus ANISOTACRUS Schmiedeknecht

Anisotacrus Schmiedeknecht, 1913. Opusc. Ichn., fasc. 34, p. 2710; fasc. 35 p. 2725.
Type: ***Mesoleius tenellus*** Holmgren. Monob.

assiduus (Cresson). Mass., Mich., Sask.
Mesoleptus assiduus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 97. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 326. ♂ ♀.

excavatus (Davis). Mont.
Erigloea excavata Davis, 1897. Amer. Ent. Soc. Trans. 24: 275. ♀.

flavifrons (Cresson). N. H., R. I., N. J.
Mesoleptus flavifrons Cresson, 1864. Ent. Soc. Phila. Proc. 3: 269. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 324. ♂.

popofensis (Ashmead). Alaska, Alta.
Hypocryptus popofensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 208. "♂"=♀.

spatiosus (Davis). Que., N. Y., R. I.
Sycnoleter spatiosus Davis, 1898. Amer. Ent. Soc. Trans. 24: 306. ♀.

truncatus (Davis.) Atlantic to Cont. Divide in Transit. Zone.
Clepsiporthus truncatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 326. ♂ ♀.

Genus HADRODACTYLUS Foerster

Hadrodactylus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 199.
Type: ***Ichneumon typhae*** Fourcroy. Desig. by Viereck, 1914.
Zemiodes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 200.
Type: (***Zemiodes coloradensis*** Davis)=[***Mesoleptus***] ***inceptus*** (Cresson). Included by Davis, 1898.
Gunomeria Schmiedeknecht, 1907. Hym. Mitteleurop., p. 625.
Type: ***Mesoleptus*** (***Gausocentrus***) ***macrodactylus*** Holmgren. Desig. by Viereck, 1914.

coxatus Davis. Atlantic to Cont. Divide in Transit. Zone.
Hadrodactylus elongatus var. *coxatus* Davis, 1898. Amer. Ent. Soc. Trans. 24: 320. ♂ ♀.

elongatus (Cresson). Mass., Alta.
Mesoleptus elongatus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 96. ♂ ♀.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 319. ♂ ♀.

femoratus Davis. Transcont. in Canad. Zone.
Hadrodactylus elongatus var. *femoratus* Davis, 1898. Amer. Ent. Soc. Trans. 24: 320. ♂ ♀.
Hypocryptus seldoviae Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 209. ♂ ♀.

flavicornis (Provancher). Que.
Mesoleptus flavicornis Provancher, 1879. Nat. Canad. 11: 228. ♀.
Taxonomy: Davis, 1894. Acad. Nat. Sci. Phila. Proc. 26: 189.

inceptus (Cresson). Maine and Que. to N. C. in Transit. Zone.
Mesoleptus inceptus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 96. ♂ ♀.
Mesoleptus propinquus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 97. ♂.
Zemiodes coloradensis Davis, 1898. Amer. Ent. Soc. Trans. 24: 323. ♂ ♀.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 319.

laurentianus (Provancher). Que.
Tryphon Laurentianus Provancher, 1875. Nat. Canad. 7: 118. ♂.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 226.

longicornis (Cresson). N. H., N. Y., Del., Mich.
Mesoleptus longicornis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 270. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 320. ♂ ♀.

magnacornis (Davis). Wash.
Zemiodes magnacornis Davis, 1898. Amer. Ent. Soc. Trans. 24: 324. ♂.

seminiger (Provancher). Atlantic to Rocky Mts. in Transit. Zone.
Paniscus seminiger Provancher, 1874. Nat. Canad. 6: 107. ♂ ♀.
Hadrodactylus ruficornis Davis, 1898. Amer. Ent. Soc. Trans. 24: 320. ♀.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 322. ♂ ♀.

tibialis (Ashmead). Transcont. in Transit. Zone; Alaska.
Hypocryptus tibialis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 209. ♂.

variegatipes (Ashmead). Alaska.
Hypocryptus variegatipes Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 208. ♂.

Genus EURYPROCTUS Holmgren

Euryproctus Holmgren, 1858. Svenska Vetensk. Akad. Handl. 1: 109.
Type: *Mesoleptus annulatus* Gravenhorst. Desig. by Viereck, 1912.
Fovaya Cameron, 1903. Ztschr. System. Hym. Dipt. 3: 341.
Type: *Fovaya annulicornis* Cameron. Monob.
Revision: Davis, 1898. Amer. Ent. Soc. Trans. 24: 327–330.

albocinctus Davis. N. H. (Mt. Washington).
Euryproctus albocinctus Davis, 1898. Amer. Ent. Soc. Trans. 24: 328. ♀.

albopunctus Davis. N. H. (Mt. Washington).
Euryproctus albopunctus Davis, 1898. Amer. Ent. Soc. Trans. 24: 328. ♂ ♀.

annulatipes (Provancher). Que. (Sherbrooke).
Mesoleptus annulatipes Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 96. ♂.

bituminosus Davis. N. H., Alta., Wash., Oreg.
Euryproctus bituminosus Davis, 1898. Amer. Ent. Soc. Trans. 24: 328. ♀.

clavatus (Provancher). Que. (Cap Rouge).
Exetastes clavatus Provancher, 1883. Faune Ent. Canada Hym., p. 386. ♀.

curvator Davis. Que. to N. C., west to Mich. Canad. and Transit. Zones.
Tryphon annulatus Provancher, 1875. Nat. Canad. 7: 119. ♀. Preocc.
Euryproctus curvator Davis, 1898. Amer. Ent. Soc. Trans. 24: 329. ♂.

dakotaensis Davis. S. Dak. (Brookings).
Euryproctus dakotaensis Davis, 1898. Amer. Ent. Soc. Trans. 24: 330. ♂.

depressus (Provancher). Que., N. H.
Mesoleptus depressus Provancher, 1875. Nat. Canad. 7: 114. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 313. ♂.

latigaster (Provancher). Ont. (Ottawa).
Mesostenus latigaster Provancher, 1886. Addit. Corr. Faune Ent. Canada. Hym., p. 77. ♀.

longicornis (Provancher). Que., Ont.
Mesostenus longicornis Provancher, 1874. Nat. Canad. 6: 300. ♂.
Tryphon Moyeni Provancher, 1875. Nat. Canad. 7: 120. ♂.
Mesoleptus perditus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 97. ♂.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 329. ♂ ♀.

longipes (Provancher). Que., N. H., N. Y., Pa., Mich.
Mesoleptus longipes Provancher, 1875. Nat. Canad. 7: 271, 272. ♂.
Euryproctus petiolatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 328. ♀.

puritanicus Davis. Mass.
Euryproctus puritanicus Davis, 1898. Amer. Ent. Soc. Trans. 24: 330. ♀.

ramis Davis. N. H., Alta., Colo.
Euryproctus ramis Davis, 1898. Amer. Ent. Soc. Trans. 24: 329. ♀.
Euryproctus sessilis Davis, 1898. Amer. Ent. Soc. Trans. 24: 329. ♀.

sentinis Davis. Ont., N. H., R. I., N. Y., Tex.
Euryproctus sentinis Davis, 1898. Amer. Ent. Soc. Trans. 24: 330. ♀.
Euryproctus rufopictus Davis, 1898. Amer. Ent. Soc. Trans. 24: 330. ♀.

Tribe CALLIDIOTINI

Genus CALLIDIOTES Foerster

Delolytus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 189.
Type: (*Atractodes varicornis* Holmgren).=[*Mesoleptus*] *coxator* (Gravenhorst). Desig. by Foerster, 1876.
Callidiotes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 199.
Type: *Mesoleptus coxator* Gravenhorst. Desig. by Foerster, 1876.
Oxytorus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 199.
Type: *Oxytorus armatus* Thomson. Desig. by Viereck, 1914.
Paracanidia Viereck, 1912. U. S. Natl. Mus. Proc. 42: 642.
Type: (*Paracanidia elyi* Viereck)=[*Mesoleptus*] *antennatus* (Cresson). Orig. desig.
Prosmoridea Cushman, 1915. Ent. Soc. Wash. Proc. 17: 191.
Type: *Prosmorus elongatus* Davis. Orig. desig.

albopleuralis (Provancher). Que. to S. C. in Transit. and U. Austr. Zones.
Mesoleptus albopleuralis Provancher, 1879. Nat. Canad. 11: 224. ♂.
Atractodes nitens Provancher, 1882. Nat. Canad. 13: 368. ♂ ♀.
Prosmosus(?) *punctifrons* Davis, 1898. Amer. Ent. Soc. Trans. 24: 309. "♂"=♀.

antennatus (Cresson). Que. to W. Va. in Transit. Zone.
Mesoleptus antennatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 272. ♂.
Mesoleptus facetus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 100. ♂.
Mesoleptus rufomixtus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 97. ♂ ♀.
Mesoleptus filiformis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 98. ♀.
Cryptus Genelinii Dalla Torre, 1902. Cat. Hym., v. 3, p. 573. N. name for *M. filiformis*.
Paracanidia elyi Viereck, 1912. U. S. Natl. Mus. Proc. 42: 643. ♀.
Taxonomy: Davis, 1898. Amer. Ent. Soc. Trans. 24: 323. ♂.

elongata (Davis). Va., N. C., Tex.
Prosmosus elongatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 310. ♀.

Subfamily COLLYRIINAE

Genus COLLYRIA Schiödte

Pachymerus Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 721. Preocc.
Type: ***Bassus calcitrator*** Gravenhorst. Desig. by Westwood, 1840.
Collyria Schiödte, 1839. Mag. Zool. (ser. 2) 1: pl. 6–10, p. 10. N. name.

calcitrator (Gravenhorst). Europe; N. Africa; Introduced into Alta., Sask., Ont.
Hosts: *Cephus pygmaeus* (L.); *C. cinctus* Nort.; *Trachelus tabidus* (F.).
Bassus calcitrator Gravenhorst, 1807. Vergl. Übers. Zool. System, p. 266.
Biology: Salt, 1931. Bul. Ent. Res. 22: 506.—Salt, 1932. Bul. Ent. Res. 23: 211–216.—Salt and Laing, 1935. Nature [London] 135: 792.
Taxonomy: Kerrich, 1936. Soc. Brit. Ent. Trans. 3: 63.—Kerrich, 1936. Soc. Brit. Ent. Jour. 1: 124.

Subfamily ORTHOPELMATINAE

Genus ORTHOPELMA Taschenberg

Orthopelma Taschenberg, 1865. Ztschr. Gesam. Naturw. 25: 137.
Type: (***Hemiteles luteolator*** Gravenhorst)=[***Ichneumon***] ***mediator*** (Thunberg). Desig. by Viereck, 1914.
Proëdrus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 147.
Type: (***Hemiteles luteolator*** Gravenhorst)=[***Ichneumon***] ***mediator*** (Thunberg). Desig. by Viereck, 1914.
Members of this genus are parasitic in galls of *Diastrophus* and *Diplolepis* on *Rosa* and *Rubus*.

californicum Ashmead. Calif. (Alameda). Host: Cynipid gall on *Rosa* sp.
Orthopelma californicum Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 417. ♂ ♀.

coloradense Ashmead. Colo. (West Cliff).
Orthopelma coloradense Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 418. ♀.

diastrophi Ashmead. Transcont. in Transit. Zone. Hosts: *Diastrophus radicum* Bass.; *Diplolepis radicum* (O. S.).
Orthopelma diastrophi Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 418. ♂ ♀.

erythropa Ashmead. Va.
Orthopelma erythropa Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 416. ♂.

mediator (Thunberg). Mass., R. I., Que., Ont., N. Y., Pa., Ind.; Europe. Hosts: *Diastrophus turgidus* Bass.; *Diplolepis ignota* (O. S.); *D. rosae* (L.); *D. rosaefolii* (Ckll.).
Ichneumon mediator Thunberg, 1822. Acad. Sci. St. Pétersburg Mém. 8: 269.
Hemiteles luteolator Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 826. ♂ ♀.
Orthopelma minutum Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 416. ♀.
Orthopelma rosaecola Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 417. ♂ ♀.
?Orthopelma thompsoni Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 157. ♂ ♀.
Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 247.

occidentale Ashmead. Wyo. Host: *Diplolepis similis* (Ashm.).
Orthopelma occidentale Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 417. ♂.

ovale (Provancher). Atlantic to Alta. in Transit. Zone.
Hemiteles ovalis Provancher, 1874. Nat. Canad. 6: 332. ♂ ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 122.

Subfamily PLECTISCINAE

Very little is known about the species of this subfamily or their

biology. They are mostly of northern distribution and are frequently abundant in damp habitats. Fungivoridae are believed to be the usual hosts.

Revision: Davis, 1897. Amer. Ent. Soc. Trans. 24: 240–247 (sketchy).

Genus ALLOMACRUS Foerster

Allomacrus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 117.
Type: ***Allomacrus pimplarius*** Thomson. Included by Thomson, 1888.

No Nearctic species are described, but the genus occurs in the Hudsonian Zone of Alaska, British Columbia, Washington, and Colorado.

Genus CYLLOCERIA Schiødte

Cylloceria Schiødte, 1838. Rev. Zool. (Soc. Cuv.) 1: 140.
Type: ***Phytodietus caligatus*** Gravenhorst. Desig. by Viereck, 1914.
Chalinoceras Ratzeburg, 1852. Ichn. d. Forstins., v. 3, p. 130.
Type: (***Chalinoceras longicornis*** Ratzeburg)=[***Ichneumon***] ***melancholica*** (Gravenhorst). Monob.
Xenacis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 167.
Type: ***Lissonota caligata*** Gravenhorst. Included by Schmiedeknecht, 1888.

lugubris (Cresson). Colo., Alta., B. C., Alaska.
Lampronota? lugubris Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 379. ♀.
Cylloceria fuscolina Davis, 1898. Amer. Ent. Soc. Trans. 24: 371. ♂.

nodosa Walley. Man., Alaska.
Cylloceria nodosa Walley, 1941. Canad. Ent. 73: 166. ♂ ♀.

sexlineata (Say). Transcont. in Canad. and Transit. Zones. As understood at present, this is doubtless a composite "species."
Anomalon sexlineata Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 74. ♀.
Cylloceria occidentalis Cresson, 1870. Amer. Ent. Soc. Trans. 3: 160. ♂ ♀.
Lampronota sexcarinata Davis, 1895. Amer. Ent. Soc. Trans. 22:30. ♀.
Lampronota errans Dalla Torre, 1901. Cat. Hym., v. 3, p. 515. N. name for *C. occidentalis*.
Lampronota aciculata Cameron, 1903. Invertebrata Pacifica 1: 129. ♀.
Taxonomy: Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 157.

Genus BLAPTICUS Foerster

Blapticus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 171.
Type: ***Blapticus leucostomus*** Foerster. Included by Foerster, 1871.

Undescribed Nearctic species of this genus are transcontinental in the Canadian and Transitional Zones.

Genus CATASTENUS Foerster

Catastenus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 170.
Type: ***Catastenus femoralis*** Foerster. Included by Foerster, 1871.

Undescribed Nearctic species of this genus are transcontinental in the Transitional Zone.

Genus DALLATORREA Ashmead

Dallatorrea Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 205.
Type: ***Dallatorrea armata*** Ashmead. Monob.
Cymodusoides Viereck, 1925. Canad. Ent. 57: 74.
Type: ***Cymodusoides gracilis*** Viereck. Orig. desig.

armata Ashmead. Alaska, Wash., Oreg., Calif., Ont., N. Y., N. C. Transit. Zone.
Dallatorrea armata Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 205. ♂.
Cymodusoides plesius Viereck, 1925. Canad. Ent. 57: 74. ♀.

gracilis (Viereck). Que. (Aylmer).
Cymodusoides gracilis Viereck, 1925. Canad. Ent. 57: 74. ♀.

rufula (Provancher). Que., N. H., N. Y., N. J.
Phygadeuon rufulus Provancher, 1879. Nat. Canad. 11: 76. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 243.

Genus SYMPLECIS Foerster

Symplecis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 151.
Type: *Symplecis alticola* Foerster. Desig. by Viereck, 1914.

sitkensis (Ashmead). Alaska, B. C., Wash., N. H.
Stiboscopus sitkensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 172. ♂.

Genus EUSTERINX Foerster

Eusterinx Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 172.
Type: *Eusterinx oligomera* Foerster. Desig. by Viereck, 1914.
Trestis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 174.
Type: (*Thestis* (!) *tricincta* Ashmead)=[*Catastenus*] *trifasciata* (Ashmead). Included by Ashmead, 1902.

compressa (Cushman). N. H., N. Y., Pa.
Polyaulon compressum Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 24. ♀.

fungicola (Ashmead). Que., N. H., Vt., N. Y., Ohio.
Mesoleptus fungicola Ashmead, 1894. Cincinnati Soc. Nat. Hist. Jour. 17: 50. ♂.

trifasciata (Ashmead). Alaska.
Catastenus trifasciata Ashmead, 1899. Fur Seals and Fur-seal Islands, v. 4, p. 336. ♀.
Thestis (!) *tricincta* Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 187. ♀.
Catastenus alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 240. ♂ ♀.

Genus MEGASTYLUS Schiødte

Megastylus Schiødte, 1838. Rev. Zool. (Soc. Cuv.) 1: 139.
Type: *Megastylus cruentator* Schiødte. Desig. by Foerster, 1871.
Brephoctonus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 159.
Type: *Plectiscus impurator* Gravenhorst. Desig. by Foerster, 1871.
Letosha Cameron, 1909. Bombay Nat. Hist. Soc. Jour. 19: 725.
Type: *Letosha longicoxis* Cameron. Monob.

caseyi (Ashmead). N. Y., N. J., Va., N. C.
Spanotecnus caseyi Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 196. ♂.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 246. ♂.

lineator Schiødte. Transcont. in Transit. Zone; Europe.
Megastylus lineator Schiødte, 1838. Rev. Zool. (Soc. Cuv.). 1: 139. ♀.
Mesoleptus (*Megastylus?*) *albocollaris* Cresson, 1868. Amer. Ent. Soc. Trans. 2: 100. ♀. N. syn.
Orthocentrus albofasciatus Provancher, 1883. Nat. Canad. 14: 13. ♀.
Megastylus ashmeadi Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 18. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 246. ♂ ♀.

Genus HELICTES Haliday

Helictes Haliday, 1837. *In* Curtis, Guide Arrang. Brit. Ins., ed. 2, p. 106; 1838. Ann. Nat. Hist. 2 : 115.
Type: *Ichneumon erythrostoma* Gmelin. Desig. by Westwood, 1839.

Idioxenus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 171.
Type: ***Megastylus mediator*** Schiødte. Desig. by Foerster, 1871.
Myriarthrus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 172, 218.
Type: (***Plectiscus erythrostoma*** Gravenhorst)=[***Ichneumon***] ***erythrostoma*** (Gmelin). Desig. by Foerster, 1871.
Paipila Cameron, 1905. Amer. Ent. Soc. Trans. 20: 358.
Type: ***Paipila longipes*** Cameron. Monob.

ruficornis Davis. N. Y., Ill.
Helictes ruficornis Davis, 1897. Amer. Ent. Soc. Trans. 24: 245. "♂"=♀.

Genus ANISERES Foerster

Aniseres Foerster, 1871. Naturh. Ver. Rheinlande Verh. 28: 73, 92.
Type: ***Aniseres pallipes*** Foerster. Monob.

lubricus Foerster. Greenland; Europe.
Aniseres lubricus Foerster, 1871. Naturh. Ver. Rheinlande Verh. 28: 93. ♂.

Genus PROCLITUS Foerster

Clepticus Haliday, 1838. Ann. Nat. Hist. 2: 116. Preocc.
Type: ***Clepticus praetor*** Haliday. Desig. by Westwood, 1839.
Proclitus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 172.
Type: ***Proclitus grandis*** Foerster. Desig. by Viereck, 1914.
Mischoxorides Ashmead, 1900. Canad. Ent. 32: 368. N. name for *Clepticus*.

longicaudus (Provancher). Que., Maine, N. H., N. Y., N. C.
Cremastus longicaudus Provancher, 1882. Nat. Canad. 13: 367. ♂ ♀.
Taxonomy: Cushman, 1917. U. S. Natl. Mus. Proc. 53: 551.

royi (Provancher). Transcont. in Transit. Zone.
Cremastus royi Provancher, 1882. Nat. Canad. 13: 366. ♂ ♀.

Genus PLECTISCIDEA Viereck

Plectiscus authors, not of the genotype.
Plectiscidea Viereck, 1914. U. S. Natl. Mus. Bul. 83: 118.
Type: ***Plectiscus collaris*** Gravenhorst. Orig. desig.

arctica (Roman). Greenland (Matuola).
Plectiscus arcticus Roman, 1930. Ann. Mag. Nat. Hist. (10) 5: 284. ♀.

carinata (Provancher). Que., N. Y.
Orthocentrus carinatus Provancher, 1879. Nat. Canad. 11: 281. ♂.

collaris (Gravenhorst). Greenland, Europe.
Plectiscus collaris Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 287. ♀.

glabrifrons (Davis). Ill. (Algonquin).
Catastenus glabrifrons Davis, 1897. Amer. Ent. Soc. Trans. 24: 342. ♂.

humeralis (Provancher). Que., B. C., Wash. Transit. and Canad. Zones.
Mesochorus humeralis Provancher, 1883. Nat. Canad. 14: 4. ♀.

hyperborea (Holmgren). Greenland; Europe.
Plectiscus hyperboreus Holmgren, 1869. Svenska Vetensk. Akad. Handl. 8 (pt. 5): 21. ♂ ♀.
Plectiscus bistriatus Thomson, 1888. Opusc. Ent., fasc. 12, p. 1299. ♂ ♀.
Taxonomy: Roman, 1916. Archiv för Zool. 10 (22): 9.

lurida (Foerster). Greenland; Europe.
Pantisarthrus luridus Foerster, 1871. Naturh. Ver. Rheinlande Verh. 28: 110. ♀.

nasoni (Davis). Transcont. in Transit. Zone.
Miomeris nasoni Davis, 1897. Amer. Ent. Soc. Trans. 24: 244. ♀.

nigra (Provancher). Que.
Plectiscus niger Provancher, 1883. Nat. Canad. 14: 6. ♂ ♀.

orcae (Ashmead). Alaska, N. Y., N. H. Canad. Zone.
Plectiscus orcae Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 240. ♀.

parva (Cushman). N. H. (top of Mt. Washington).
Plectiscus parvus Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 22. ♀.

patula (Viereck). N. H., Wash., N. Mex.
Mesochorus areolatus Viereck, 1903. Amer. Ent. Soc. Trans. 29: 92. ♀. Preocc.
Mesochorus patulus Viereck, 1911. U. S. Natl. Mus. Proc. 40: 192. N. name.

Genus PANTISARTHRUS Foerster

Pantisarthrus Foerster, 1871. Naturh. Ver. Rheinlande Verh. 28: 74, 109.
Type: *Pantisarthrus inaequalis* Foerster. Desig. by Viereck, 1914.

dorsalis (Provancher). N. Y. Described from either Ont. or Que.
Bassus dorsalis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 112. ♀.

Genus APERILEPTUS Foerster

Aperileptus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 170.
Type: *Plectiscus albipalpus* Gravenhorst. Desig. by Foerster, 1871.

gracilis (Provancher). Que., Maine, N. H., N. Y.
Phytodietus gracilis Provancher, 1875. Nat. Canad. 7: 331. ♀.
Aperiletus (!) *clypeatus* Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 4. ♀.
Aperileptus delicatus Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 5. ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 210.—Davis, 1897. Amer. Ent. Soc. Trans. 24: 245.

valerius (Davis). N. Y., Ill.
Catastenus valerius Davis, 1897. Amer. Ent. Soc. Trans. 24: 243. ♀.

Genus MICROLEPTES Gravenhorst

Microleptes Gravenhorst, 1829. Ichn. Europaea, v. 1, p. 679.
Type: *Microleptes splendidulus* Gravenhorst. Monob.

splendidulus Gravenhorst. Que. (Gaspé Pen.); Europe.
Microleptes splendidulus Gravenhorst, 1829. Ichn. Europaea, v. 1, p. 679. ♀.

Genus HYPERACMUS Holmgren

Hyperacmus Holmgren, 1858. Svenska Vetensk. Akad. Handl. 1: 322.
Type: *Exochus crassicornis* Gravenhorst. Monob.
Nothaima Cameron, 1902. Bombay Nat. Hist. Soc. Jour. 14: 429.
Type: (*Nothaima bicarinata* Cameron)=[*Exochus*] *crassicornis* (Gravenhorst). Monob.

crassicornis (Gravenhorst). N. Y. (Rock City); Eurasia.
Exochus crassicornis Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 347. ♀.

Subfamily ORTHOCENTRINAE

The biology of this subfamily is little known. Fungivoridae and Itonididae are believed to be the hosts.

Revision: Davis, 1897. Amer. Ent. Soc. Trans. 24: 219–226.

Genus ORTHOCENTRUS Gravenhorst

Orthocentrus Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 358.
Type: (*Orthocentrus fulvipes* Gravenhorst)=*Orthocentrus anomalus* Gravenhorst. Desig. by Westwood, 1839.
Tapinops Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 160.
Type: (*Orthocentrus californicus* Ashmead)=[*Exochiscus*] *pusillus* (Walsh). Included by Ashmead, 1896.

Atmetus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 160.
Type: ***Atmetus tetrazonatus*** Ashmead. Included by Ashmead, 1896.
Phaenosemus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 160.
Type: ***Phaenosemus sitkensis*** Ashmead. Included by Ashmead, 1902.
Exochiscus Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 96.
Type: ***Exochiscus pusillus*** Walsh. Monob.

decoratus Townes. Calif. (Santa Cruz Mts.).
Atmetus californicus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 204. ♀. Preocc.
Orthocentrus decoratus Townes, 1945. Amer. Ent. Soc. Mem. 11: 546. N. name.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 222.

lucens (Provancher). Que. (Cap Rouge).
Orthocentrus lucens Provancher, 1879. Nat. Canad. 11: 280. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 224.

protuberans Holmgren. Transcont. in Transit. and Canad. Zones; Europe.
Orthocentrus protuberans Holmgren, 1856. Svenska Vetensk. Akad. Handl. 1: 333. ♂ ♀.
Atmetus insularis Ashmead, 1899. Fur Seals and Fur-seal Islands, v. 4, p. 337. ♂. Preocc.

pusillus (Walsh). Transcont. in Transit. Zone.
Exochiscus pusillus Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 97. "♂"=♀.
Alomya abdominalis Provancher, 1875. Nat. Canad. 7: 121. ♂ ♀.
Orthocentrus Canadensis Provancher, 1875. Nat. Canad. 7: 142. ♂.
Orthocentrus californicus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 442. ♀.
Orthocentrus medialis Davis, 1897. Amer. Ent. Soc. Trans. 24: 224 ♀.
Camerotops (!) ***asperus*** Davis, 1897. Amer. Ent. Soc. Trans. 24: 226. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 222, 224.

repentinus Holmgren. Greenland; Europe.
Orthocentrus repentinus Holmgren, 1856. Svenska Vetensk. Akad. Handl. 1: 327. ♂ ♀.
Taxonomy: Roman, 1930. Ann. Mag. Nat. Hist. (10) 5: 284.

rugulosus (Provancher). Que.
Glypta rugulosa Provancher, 1883. Nat. Canad. 14: 14. "♂"=♀.

sitkensis (Ashmead). Alaska, Wash.
Phaeosemus sitkensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 231. ♂.

stigmatias (Walsh). Transcont. in Transit. Zone.
Orthocentrus stigmatias Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 101. "♀"=♂.

tetrazonatus (Ashmead). Colo. (West Cliff).
Atmetus tetrazonatus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 204. ♀.
Atmetus carinatus Davis, 1897. Amer. Ent. Soc. Trans. 24: 223. ♂ ♀.

trifasciatus Walsh. ?Ill.
Orthocentrus trifasciatus Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 100. ♂ ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 224.

Genus PICROSTIGEUS Foerster

Picrostigeus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 159.
Type: ***Orthocentrus (Picrostigeus) setiger*** Thomson. Desig. by Viereck, 1912.

An undescribed Nearctic species is transcontinental in the Transitional Zone.

Genus NEURATELES Ratzeburg

Neurateles Ratzeburg, 1848. Ichn. d. Forstins., v. 2, p. 86.
Type: ***Neurateles papyraceus*** Ratzeburg. Monob.

leucopsis (Ashmead). Colo. (Brush Creek).
Orthocentrus leucopsis Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 24. ♂.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 221. ♂.

Genus MNESIDACUS Foerster

Mnesidacus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 159.
Type: (***Mnesidacus apicalis*** Ashmead)=[***Orthocentrus***] ***nigricoxus*** Provancher. Included by Ashmead, 1896.

nigricoxus (Provancher). Transcont. in Transit. Zone.
Orthocentrus nigricoxus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 369. ♀.
Mnesidaeus (!) ***apicalis*** Ashmead, 1898. Amer. Ent. Soc. Trans. 23: 202. ♀.
Atmetus nigritus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 204. ♀.
Orthocentrus nigricoxus Davis, 1897. Amer. Ent. Soc. Trans. 24: 223. ♂ ♀.
Deleter flavifrons Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 229. ♂.
Orthocentrus nigritus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 231. ♂. Preocc.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 222. ♀.

Genus STENOMACRUS Foerster

Synoplus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 159.
Type: ***Synoplus brevipennis*** Ashmead. Desig. by Viereck, 1914.
Hypoleptus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 159.
Type: ***Hypoleptus columbianus*** Ashmead. Included by Ashmead, 1896.
Deleter Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 160.
Type: (***Deleter obscurus*** Davis)=[***Neuratelus***] ***americanus*** (Ashmead). Desig. by Viereck, 1914.
Stenomacrus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 160.
Type: ***Orthocentrus silvaticus*** Holmgren. Desig. by Viereck, 1912.
Camarotops Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 160.
Type: ***Neuratelus ulmicola*** Ashmead. . Desig. by Viereck, 1914.

alaskensis (Ashmead). Alaska (Muir Inlet).
Hypoleptus alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 227. ♂ ♀.
Hypoleptus glacialis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 228. ♂ ♀.

americanus (Ashmead). Ont., N. Y., Md., Mich., Ill.
Neuratelus americanus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 203. ♀.
Deleter obscurus Davis, 1897. Amer. Ent. Soc. Trans. 24: 221. ♂.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 226.

borealis Ashmead. Alaska (Bering Isl.).
Stenomacrus borealis Ashmead, 1899. Fur Seals and Fur-seal Islands, v. 4, p. 338. ♀.

brevipennis (Ashmead). Alaska (St. Paul Isl.).
Synoplus brevipennis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 226. ♀.
Synoplus pleuralis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 227. ♀.

columbianus (Ashmead). D. C.
Hypoleptus columbianus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 203. ♂.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 220. ♂.

dubiosus (Ashmead). Alaska (St. Paul Isl.).
Neurateles dubiosus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 228. ♂.

hastatus Davis. Calif. (Siskiyou Co.).
Stenomacrus hastatus Davis, 1897. Amer. Ent. Soc. Trans. 24: 225. ♀.

hygrotrechus (Viereck). Conn. (New Haven).
Brephoctonus hygrotrecha Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 305. ♂ ♀.

intritus Davis. Canada.
Stenomacrus intritus Davis, 1897. Amer. Ent. Soc. Trans. 24: 225. ♂.

kincaidi (Ashmead). Alaska (Belkofski).
Deleter kincaidi Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 229. ♂ ♀.

kodiakensis (Ashmead) Alaska (Kodiak).
Camarotops kodiakensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 232. ♀.

laticollis (Holmgren). Greenland; Russia.
Orthocentrus laticollis Holmgren, 1883. Ent. Tidskr. 4: 158. ♀.
Taxonomy: Roman, 1916. Archiv för Zool. 10 (22): 10. ♂ ♀.

mellipes (Provancher). Transcont. in Transit. Zone.
Bassus mellipes Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 429. ♀.
Brephoctonus californicus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 202. ♂.
Camerotops (!) *premitus* Davis, 1897. Amer. Ent. Soc. Trans. 24: 226. "♂"=♀.
Stenomacrus alticola Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 27. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 220.

monticola (Cushman). N. H. (top of Mt. Washington).
Hypoleptus monticola Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 16. ♀.

terebrator Roman. Greenland (Jameson Land).
Stenomacrus terebrator Roman, 1934. Ann. Mag. Nat. Hist. (10) 14: 608. ♀.

ulmicola (Ashmead). N. Y., Ohio, Md., Ga., Fla.
Brephoctonus flavosus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 202. ♂.
Neuratelus ulmicola Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 203. ♀.
Neuratelus liriodendri Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 203 ♂ ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 226.

undulatus (Davis). Ill.
Deleter undulatus Davis, 1897. Amer. Ent. Soc. Trans. 24: 221. ♂ ♀.

Genus LEIPAULUS Townes

Leipaulus Townes, 1945. Amer. Ent. Soc. Mem. 11: 552.
Type: *Deleter suffuscus* Davis. Orig. desig.

suffuscus (Davis). N. H., N. Y., Wash.
Deleter suffuscus Davis, 1897. Amer. Ent. Soc. Trans. 24: 221. ♂.

Subfamily DIPLAZONINAE

Members of this subfamily are parasitic on Syrphidae. They oviposit into the egg or young larva of the host and emerge from the puparium. The species are mostly of northern distribution.

Revision: Davis, 1895. Amer. Ent. Soc. Trans. 22: 17–30.

Genus DIPLAZON Nees

Bassus of authors, not of the genotype.
Diplazon Nees, 1818. Acad. Nat. Curios Nov. Acta 9: 292.
Type: *Ichneumon laetatorius* Fabricius. Desig. by Viereck, 1914.
Revision: Davis, 1895. Amer. Ent. Soc. Trans. 22: 19–21.

annulatus (Gravenhorst). Greenland; Europe.
Bassus annulatus Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 348. ♀.

laetatorius (Fabricius). Transcont. in Canad. to Tropical Zones; worldwide. Hosts: *Allograpta exotica* (Wied.); *A. obliqua* (Say); *Baccha clavata* (F.); *B. lemur* O. S.; *Eupeodes volucris* O. S.; *Mesogramma polita* (Say); *Metasyrphus perplexus* (Osborn); *M. vinelandi* (Curr.); *M. wiedemanni* (John.); *Paragus bicolor* (F.); *P. tibialis* (Fall.); *Platycheirus erraticus* Curr.; *Scaeva pyrastri* (L.); *Sphaerophoria cylindrica* (Say); *S. robusta* Curr.; *Syrphus rectus* O. S.; *S. ribesii* (L.); *S. ribesii vittafrons* Shan.; *S. torvus* O. S.

Ichneumon laetatorius Fabricius, 1781. Species Insectorum, v. 1, p. 424. ♀.
Anomalon attractus Say, 1836. Boston Jour. Nat. Hist. 1: 241. ♀.
Bassus sycophanta Cresson, 1868. Amer. Ent. Soc. Trans. 2: 112. ♂ ♀.
Bassus tripicticrus Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 85. ♂ ♀.
Bassus laetatorius var. *terminalis* Davis, 1895. Amer. Ent. Soc. Trans. 22: 19. ♀.

Biology: Cook, 1891. Mich. Agr. Expt. Sta. Ann. Rpt. 4: 132.—Kelley, 1914. Jour. Econ. Ent. 7: 294–297.—Kamal, 1926. Jour. Econ. Ent. 19: 724, 727.—Heiss, 1938. Ill. Biol. Monog. 36: 19, 99, 100.

pectoratorius (Thunberg). Transcont. in Canad. and Huds. Zones; Eurasia.
Ichneumon pectoratorius Thunberg, 1822. Acad. Sci. St. Pétersburg Mém. 8: 280.
Bassus pulchripes Provancher, 1875. Nat. Canad. 7: 143, 144. ♂.
Polysphincta pleuralis Provancher, 1875. Nat. Canad. 7: 312. ♂.

scutellaris (Cresson). Atlantic to 100° W. in Transit., U. Austr., and L. Austr. Zones; Mexico. Hosts: *Allograpta obliqua* (Say); *Baccha clavata* (F.); *Metasyrphus vinelandi* (Curr.); *Sphaerophoria cylindrica* (Say).
Bassus scutellaris Cresson, 1868. Amer. Ent. Soc. Trans. 2: 112. ♂ ♀.

tetragonus (Thunberg). Transcont. in Transit. and Canad. Zones; Europe.
Ichneumon tetragonus Thunberg, 1822. Acad. Sci. St. Pétersburg Mém. 8: 280.
Bassus concinnus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 111. ♀.
Bassus amoenus Provancher, 1874. Nat. Canad. 6: 31, 55. ♀.
Bassus albicoxus Provancher, 1874. Nat. Canad. 6: 31, 56. ♂.

tibiatorius (Thunberg). West of 100° W. from Alaska to Mexico in the Huds., Canad., and Transit. Zones; east of 100° W. in Canad. Zone; Europe. Hosts: *Eupeodes volucris* O. S.; *Sphaerophoria cylindrica* (Say); *Syrphus opinator* O. S.
Ichneumon tibiatorius Thunberg, 1822. Acad. Sci. St. Pétersburg Mém. 8: 280.
Bassus orbitalis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 272. ♀.
Bassus cinctulus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 375. ♂ ♀.
Bassus orbitalis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 439. ♀. Preocc.

Genus ZOOTREPHUS Thomson

Zootrephus Thomson, 1890. Opusc. Ent., fasc. 14, p. 1486.
Type: (*Bassus holmgreni* Bridgman)=[*Bassus*] *rufiventris* (Gravenhorst). Desig. by Viereck, 1912.

Revision: Davis, 1895. Amer. Ent. Soc. Trans. 22: 22–24.

bizonarius (Gravenhorst). Transcont. in Canad. and Transit. Zones; Europe.
Bassus bizonarius Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 350. ♂.
Bassus saginatus Provancher, 1879. Nat. Canad. 11: 277. ♂.
Zootrephes inconstans (as *Z. maudae* in key) Davis, 1895. Amer. Ent. Soc. Trans. 22: 23. ♂ ♀.

ichneumonoides (Provancher). Transcont. in Canad., Transit., and U. Austr. Zones; Alaska.
Bassus ichneumonoides Provancher, 1874. Nat. Canad. 6: 31, 57. ♂ ♀.
Bassus scapulatus Provancher, 1883. Nat. Canad. 14: 11. ♀.
Bassus cingulatus Provancher, 1883. Nat. Canad. 14: 11. ♀.
Zootrephes similis Brues, 1908. Wis. Nat. Hist. Soc. Bul. 6: 52. ♀.

rufiventris (Gravenhorst). Transcont. in Canad. and Transit. Zones; Europe. Host: *Platycheirus erraticus* Curr.
Bassus rufiventris Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 312.
Zootrephes antennatus Davis, 1895. Amer. Ent. Soc. Trans. 22: 23. ♂ ♀.

Genus PROMETHES Foerster

Promethes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 162.
Type: *Bassus sulcator* Gravenhorst. Incl. by Woldstedt, 1877.
Liopsis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 162.
Type: *Bassus sulcator* Gravenhorst. Desig. by Viereck, 1912.
Promethus Thomson, 1890. Opusc. Ent., fasc. 14, pp. 1465, 1475.

Type: ***Bassus sulcator*** Gravenhorst. Desig. by Viereck, 1912.

Sussaba Cameron, 1909. Bombay Nat. Hist. Soc. Jour. 19: 728.
Type: (***Sussaba bicarinata*** Cameron)=[***Bassus***] ***pulchellus*** (Holmgren). Monob.

Revision: Davis, 1895. Amer. Ent. Soc. Trans. 22: 21–22.

cultriformis (Ashmead). Atlantic to Sask. in Canad. and Transit. Zones.
Trematopygus? cultriformis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 441. ♀.
Promethus ruficrus Davis, 1895. Amer. Ent. Soc. Trans. 22: 21. ♀.

elongatus (Provancher). Transcont. in Huds., Canad., and Transit. Zones. Hosts: *Platycheirus erraticus* Curr., *Sphaerophoria robusta* Curr.
Bassus elongatus Provancher, 1874. Nat. Canad. 6: 31, 54. ♂ ♀.
Otoblastus erodens Davis, 1897. Amer. Ent. Soc. Trans. 24: 273. ♂ ♀.
Bioblapsis tricincta Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 224. ♂.
Promethes unicinctus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 224. ♀.
Promethes rohweri Brues, 1908. Wis. Nat. Hist. Soc. Bul. 6: 51. ♂ ♀.

sulcator (Gravenhorst). Transcont. in Transit. Zone; Europe. Host: *Sphaerophoria robusta* Curr.
Bassus sulcator Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 320. ♂ ♀.
Bassus costalis Provancher, 1874. Nat. Canad. 6: 31, 58. ♀.
Bassus longicornis Provancher, 1883. Nat. Canad. 14: 12. ♀.
Bassus aciculatus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 368. ♀.
Bassus auriculatus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 429. ♀.

Genus SYRPHOCTONUS Foerster

Syrphoctonus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 162.
Type: ***Bassus biguttatus*** Gravenhorst. Desig. by Viereck, 1912.

Homoporus Thomson, 1890. Opusc. Ent., fasc. 16, p. 1488. Preocc.
Type: ***Homotropus elegans*** Gravenhorst. Selected automatically by Viereck, 1912, when he selected this species as the genotype of *Homocidus*.

Homocidus Morley, 1911. Brit. Ichn., v. 4, p. 87. N. name for *Homoporus*.

Revision: Davis, 1895. Amer. Ent. Soc. Trans. 22: 25–27.

agilis (Cresson). Transcont. in U. Austr. to Huds. Zones. Hosts: *Allograpta obliqua* (Say); *Metasyrphus wiedemanni* (John.); *Sphaerophoria cylindrica* (Say); *S. robusta* Curr.
Bassus agilis Cresson, 1868. Amer. Ent. Soc. Trans. 2: 111. ♂.
Bassus frontalis Cresson, 1868. Amer. Ent. Soc. Trans. 2: 111. ♀.
Mesoleius junctus Provancher, 1883. Nat. Canad. 14: 10. ♂.

alaskensis (Ashmead). Alaska (Popof Isl.).
Homotropus alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 226. ♀.

albopictus (Davis). Colo., Alta., Wash., Oreg., Calif. Transit. Zone.
Homotropus bicapillaris var. ***albopictus*** Davis, 1895. Amer. Ent. Soc. Trans. 22: 28. ♂ ♀.

belangerii (Provancher). Que. to S. C. and La.
Bassus Belangerii Provancher, 1874. Nat. Canad. 6: 31, 56. ♀.

compressiventris (Cresson). Transcont. in Transit. Zone. Host: *Platycheirus erraticus* Curr.
Tryphon compressiventris Cresson, 1868. Amer. Ent. Soc. Trans. 2: 105. ♂ ♀.
Zootrephes montanus Davis, 1895. Amer. Ent. Soc. Trans. 22: 24. ♂ ♀.

cressonii Davis. Nev.
Syrphoctonus cressonii Davis, 1895. Amer. Ent. Soc. Trans. 22: 27. ♀.

cultriformis (Davis). Colo.
Otoblastus cultriformis Davis, 1897. Amer. Ent. Soc. Trans. 24: 273. ♀.

decoratus (Cresson). Pacific to Cont. Divide. Transit. Zone. Hosts: *Eupeodes volucris* O. S.; *Metasyrphus* sp.; *Sphaerophoria cylindrica* (Say).
Bassus decoratus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 375. ♂.

Biology:—Kamal, 1926. Jour. Econ. Ent. 19: 723, 727.

elegans var. **nigritarsus** (Gravenhorst). Greenland; Europe. (*S. elegans elegans* Gravenhorst is European.
Bassus nigritarsus Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 338. ♀.

foutsi Cushman. Maine, Mass., N. Y., Md., D. C., Ohio, Ill.
Syrphoctonus foutsi Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13): 12. ♂ ♀.

gillettii Davis. Colo.
Syrphoctonus gillettii Davis, 1895. Amer. Ent. Soc. Trans. 22: 26. ♀.

groenlandicus (Holmgren). Greenland.
Bassus groenlandicus Holmgren, 1872. Öfvers. Svenska Vetensk. Akad. Förh. 296: 97. ♂.

humeralis (Provancher). West of 100° from Alaska to Mexico, also in the Transit. Zone east to the Atlantic. Hosts: *Allograpta obliqua* (Say); *Eupeodes volucris* O. S.; *Scaeva pyrastri* (L.).
Tryphon humeralis Provancher, 1875. Nat. Canad. 7: 117. ♀.
Bassus fuscitarsus Provancher, 1875. Nat. Canad. 7: 143, 144. ♂.

laevis Brues. Atlantic to Cont. Divide. Transit. Zone.
Syrphoctonus laevis Brues, 1908. Wis. Nat. Hist. Soc. Bul. 6: 53. ♀.

maculifrons (Cresson). Minn., Iowa, S. Dak., and Rocky Mts. to Pacific. U. Austr. Zone. Hosts: *Cheilosia alaskensis* Hunter; *C. hoodiana* (Bigot); *Eupeodes volucris* O. S.; *Metasyrphus* sp.; *Paragus tibialis* (Fall.); *Scaeva pyrastri* (L.); *Syrphus* sp.
Bassus maculifrons Cresson, 1865. Ent. Soc. Phila. Proc. 4: 272. ♀.
Bassus semifasciatus Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 87. ♂.
Biology: Kamal, 1926. Jour. Econ. Ent. 19: 722, 727.

melanogaster (Holmgren). Greenland.
Bassus melanogaster Holmgren, 1872. Öfvers. Svenska Vetensk. Akad. Förh. 29, No. 6: 98. ♂.

minimus (Cresson). Atlantic to 100° W. L. Austr., U. Austr., and Transit. Zones.
Tryphon minimus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 281. ♀.
Bassus ruficrus Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 86. "♂"=♀.

pacificus (Cresson). Rocky Mts. to Pacific, also S. Dak. and Alaska. Transit. Zone. Hosts: *Allograpta obliqua* (Say); *Eupeodes volucris* O. S.; *Metasyrphus* sp.; *Scaeva pyrastri* (L.); *Syrphus* sp.
Bassus maculifrons Holmgren, 1868. Eug. Resa I, Zool. I, Ins., p. 410. ♀. Preocc.
Bassus pacificus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 376. ♂ ♀.
Bassus xanthopsis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 440. ♂.

pallipennis (Provancher). Que.
Bassus pallipennis Provancher, 1874. Nat. Canad. 6: 31, 56. ♀.
Homotropus pallidipennis Dalla Torre, 1901. Cat. Hym., v. 3, p. 238. Emend.

pectoralis (Provancher). Transcont. in Transit., Canad., and Huds. Zones.
Bassus pectoralis Provancher, 1874. Nat. Canad. 6: 32. ♂.

pleuralis (Cresson). Transcont. in Transit. Zone. Host: *Syrphus torvus* O. S.
Bassus pleuralis Cresson, 1868. Amer. Ent. Soc. Trans. 2: 111. ♀.
Bassus syrphicola Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 439. ♂ ♀.

robustus Davis. Alta., Wash.
Syrphoctonus robustus Davis, 1895. Amer. Ent. Soc. Trans. 22: 25. ♂.

vertebratus Cushman. N. H. (top of Mt. Washington).
Syrphoctonus vertebratus Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 29. ♂.

Genus PHTHORIMA Foerster

Phthorima Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 162.
Type: ***Bassus compressus*** Desvignes. Included by Dalla Torre, 1901.
Phthorimus Thomson, 1890. Opusc. Ent., fasc. 14, pp. 1465, 1474.
Type: ***Bassus compressus*** Desvignes. Monob.

bidens (Davis). N. H., N. Y., W. Va., Mich.
Otoblastus bidens Davis, 1879. Amer. Ent. Soc. Trans. 24: 273. ♂.
Phthorima sulciclypeus Cushman, 1920. U. S. Natl. Mus. Proc. 58: 265. ♀. N. syn.

extensor Cushman. Mass., N. Y., N. J., Pa., Md., Va.
Phthorima extensor Cushman, 1920. U. S. Natl. Mus. Proc. 58: 264. ♀.

Genus ENIZEMUM Foerster

Enizemum Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 162.
Type: (***Bassus tibialis*** Cresson)=[***Pimpla***] ***petiolatum*** (Say). Included by Davis, 1895.
Homotropus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 162.
Type: (***Bassus bicapillaris*** Walsh)=[***Pimpla***] ***petiolatum*** (Say). Desig. by Viereck, 1912.

ornatum (Gravenhorst), n. comb. Alaska, Alta., N. Mex., Greenland; Eurasia.
Bassus ornatus Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 341. ♂.
Enizemum neomexicanum Brues, 1908. Wis. Nat. Hist. Soc. Bul. 6: 54. ♀. N. syn.

petiolatum (Say). Atlantic to Cont. Divide. Transit. and U. Austr. Zones. Host: *Metasyrphus wiedemanni* (John.).
Pimpla? petiolatus Say, 1836. Boston Jour. Nat. Hist. 1: 224. ♂.
Bassus tibialis Cresson, 1868. Amer. Ent. Soc. Trans. 2: 110. ♀.
Bassus bicapillaris Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 88. "♂"=♀.
Pimpla parvialba Viereck, 1906. Amer. Ent. Soc. Trans. 32: 182. "♂"=♀.

Subfamily METOPIINAE

Members of this subfamily are parasites of Lepidoptera. The parasites emerge from the pupae of the hosts.

Genus METOPIUS Panzer

Subgenus METOPIUS Panzer

Metopius Panzer, 1806. Krit. Rev. Insektenf. Deutschlands, v. 2, p. 78.
Type: ***Sphex vespoides*** Scopoli. Desig. by Viereck, 1914.
Peltastes Illiger, 1807. *In* Rossi, Fauna Etrusca, Ed. 2, v. 2, p. 55.
Type: (***Ichneumon necatorius*** Fabricius)=[***Sphex***] ***vespoides*** (Scopoli). Desig. by Curtis, 1824.
Peltopius Clément, 1930. Konowia 8: 387.
Type: ***Sphex vespoides*** Scopoli. Orig. desig.

This subgenus is not represented in the Neartic Region.

Subgenus CLEMONTIA Michener

Clemontia Michener, 1941. Pan-Pacific Ent. 17: 2.
Type: ***Ichneumon micratorius*** Fabricius. Orig. desig.
Revision: Davis, 1897. Amer. Ent. Soc. Trans. 24: 198–202.

basalis Cresson. Fla.
Metopius basalis Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxvii. ♀.

bellus Cresson. Nev.
Metopius bellus Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxviii. ♂.

birkmani Brues. Tex. (Lee Co.).
Metopius birkmani Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 56. ♂ ♀.

comptus Cresson. Colo.
Metopius comptus Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxviii. ♀.
Metopius laticinctus Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxviii. ♂.

concinnus Cresson. Nev.
Metopius concinnus Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxviii. ♂.

edwardsii Cresson. Wash., Nev.
Metopius Edwardsii Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 376. ♂.
Metopius nevadensis Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxvii. ♂ ♀.

errantia Davis. Mich. (Gaylord).
Metopius errantia Davis, 1897. Amer. Ent. Soc. Trans. 24: 199. ♀.

grandior Viereck. Kans. (Hamilton Co.).
Metopius grandior Viereck, 1905. Kans. Acad. Sci. Trans. 19: 314. ♀.

harbecki Skinner. N. Y., N. J., Pa., D. C., N. C., Mo.
Metopius harbecki Skinner, 1906. Ent. News. 17: 150. ♂.

medianus Morley. Ga.
Metopius medianus Morley, 1912. Rev. Ichneum. Brit. Mus. v. 1, p. 78. ♂.

montanus Cresson. Colo.
Metopius montanus Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxviii. ♂.
Metopius mirandus Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxviii. ♀.

pollinctorius (Say). N. Y. to Ga., west to Wis. Hosts: *Acronicta oblinita.* (A. and S.); *Tropaea luna* (L.).
Peltastes pollinctorius Say, 1836. Boston Jour. Nat. Hist. 1: 245. ♂ ♀.
Metopius pinatorius Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 120. ♂.
Metopius cordiger Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 120. ♂.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 144.

pulchellus Cresson. Colo., N. Mex., Ariz.
Metopius pulchellus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 271. ♀.

robustus Cresson. Md.
Metopius robustus Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxvii. ♀.

rufipes Cresson. Colo.
Metopius rufipes Cresson, 1865. Ent. Soc. Phila. Proc. 5: 270. ♀.

scitulus Cresson. Nev.
Metopius scitulus Cresson, 1897. Amer. Ent. Soc. Trans. 7: Proc. p. xxix. ♂.

ultimatus Davis. W. Va., N. C., Ohio, Ill., Nebr., Tex.
Metopius ultimatus Davis, 1897. Amer. Ent. Soc. Trans. 24: 199. ♂.

xanthostigma Ashmead. N. C.
Metopius xanthostigma Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 438. ♂

Subgenus CULTRARIUS Davis

Cultrarius Davis, 1897. Amer. Ent. Soc. Trans. 24: 197.
Type: *Metopius rileyi* Marlatt. Monob.

rileyi Marlatt. Kans., S. Dak.
Metopius rileyi Marlatt, 1891. Ent. Soc. Wash. Proc. 2: 103. ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 197. ♀.

Genus PSEUDOMETOPIUS Davis

Pseudometopius Davis, 1897. Amer. Ent. Soc. Trans. 24: 197, 202.
Type: *Metopius hagenii* Cresson. Desig. by Viereck, 1914.

hagenii (Cresson). Conn., Mass., Mich., Kans., Tex.
Metopius Hagenii Cresson, 1872. Amer. Ent. Soc. Trans. 4: 168. ♂ ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 202.

Genus SPUDEAUS Gistel

Trachyderma Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 283. Preocc.
Type: *Trachyderma scabra* Gravenhorst. Monob.
Spudaeus Gistel, 1848. Naturgsech. Thierr. f. höh. Schul., p. xi. N. name.
Tylocomnus Holmgren, 1873. Öfvers. Svenska Vetensk. Akad. Förh. 30 (pt. 4) 76. N. name.
Revision: Davis, 1897. Amer. Ent. Soc. Trans. 24: 203–204.

indigus (Davis). Atlantic to Cont. Divide in Canad. Zone.
Tylecomnus (!) *indigus* Davis, 1897. Amer. Ent. Soc. Trans. 24: 204. ♂ ♀.

minoris (Davis). Transcont. in Canad. Zone.
Tylecomnus (!) *minoris* Davis, 1897. Amer. Ent. Soc. Trans. 24: 204. ♀.

umbrosus (Davis). Pacific to Cont. Divide in Canad. Zone.
Tylecomnus (!) *umbrosus* Davis, 1897. Amer. Ent. Soc. Trans. 24: 203. ♀.

Genus CHORINAEUS Holmgren

Chorinaeus Holmgren, 1858. Svenska Vetensk. Akad. Handl. 1: 305, 320.
Type: *Exochus funebris* Gravenhorst. Desig. by Viereck, 1912.
Polyrhabdus Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 98.
Type: *Polyrhabdus cariniger* Walsh. Monob.
Revision: Davis, 1897. Amer. Ent. Soc. Trans. 24: 207–212.

californicus Ashmead. Calif. (Santa Cruz Mts.).
Chorinaeus californicus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 200. ♂.

carinatus (Cresson). Ont., Ill.
Tryphon carinatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 273. ♂.

cariniger (Walsh). ?Ill.
Polyrhabdus cariniger Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 98. ♂ ♀.

constrictus Davis. N. H. (Franconia).
Chorinaeus constrictus Davis, 1897. Amer. Ent. Soc. Trans. 24: 209. ♀.

excessorius Davis. Wash.
Chorinaeus excessorius Davis, 1897. Amer. Ent. Soc. Trans. 24: 209. ♀.

opacitas Davis. Nev.
Chorinaeus opacitas Davis, 1897. Amer. Ent. Soc. Trans. 24: 210. ♀.

pleturus Davis. Que., N. Y., Mich., Sask.
Chorinaeus pleturus Davis, 1897. Amer. Ent. Soc. Trans. 24: 211. ♀.

pusillus Davis. Wash.
Chorinaeus pusillus Davis, 1897. Amer. Ent. Soc. Trans. 24: 211. ♂ ♀.

Genus TRIECES Townes

Trieces Townes, 1946. Bol. Ent. Venezolana 5: 60.
Type: *Exochus texanus* Cresson. Orig. desig.
Revision: Davis, 1897. Amer. Ent. Soc. Trans. 24: 207–212.

costatus (Davis). N. H.
Chorinaeus costatus Davis, 1897. Amer. Ent. Soc. Trans. 24: 211. ♂ ♀.

flavifrons (Ashmead). Wis.
Chorinaeus flavifrons Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 444. ♀.

marlatti (Ashmead). Kans.
Chorinaeus marlatti Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 200. ♀.

onitis (Davis). N. H. (Mt. Washington).
Chorinaeus onitis Davis, 1897. Amer. Ent. Soc. Trans. 24: 210. ♂ ♀.

texanus (Cresson). Tex. (Bosque Co.).
Exochus texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 168. ♂.

Genus PERIOPE Haliday

Periope Haliday, 1839. Ann. Nat. Hist. 2: 114.
Type: *Periope auscultator* Haliday. Monob.
Monoplectron Holmgren, 1856. Svenska Vet. Akad. Handl. 75: 63, 81.
Type: (*Monoplectron zygaenator* Holmgren)=*Periope auscultator* Haliday. Monob.
Oligoplectron Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 161.
Type: *Periope auscultator* Haliday. Desig. by Viereck, 1914.

aethiops (Cresson). Que. and Maine to S. C., west to Minn. On flowers of *Solidago* and *Aster* in fall.

Tryphon aethiops Cresson, 1868. Amer. Ent. Soc. Trans. 2: 106. ♀.
Chorinaeus pulchripes Provancher, 1883. Nat. Canad. 14: 12. ♀.
Biology: Washburn, 1918. Minn. State Ent. Ann. Rpt. 17: 173.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 203, 206.

Genus LEURUS Townes

Leurus Townes, 1946. Bol. Ent. Venezolana 5: 59.
Type: ***Exochus caeruliventris*** Cresson.

caeruliventris (Cresson). Atlantic states north to R. I.; also Mexico and Venezuela.
Exochus caeruliventris Cresson, 1868. Amer. Ent. Soc. Trans. 2: 38. "♂"=♀.

Genus COLPOTROCHIA Holmgren

Colpotrochia Holmgren, 1856. Svenska Vetensk. Akad. Handl. 75: 80.
Type: ***Ichneumon elegantulus*** Schrank. Monob.
Alcocerus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 161.
Type: ***Tryphon? trifasciatus*** Cresson. Included by Davis, 1897.
Exochoides Cresson, 1868. Amer. Ent. Soc. Trans. 2: 37.
Type: ***Exochoides mexicana*** Cresson. Desig. by Viereck, 1914.
Ischyrocnemopsis Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 81.
Type: ***Exochoides texana*** Cresson. Orig. desig.
Scallama Cameron, 1899. Manchester Lit. and Phil. Soc. Mem. 43: 216. N. syn.
Type: ***Scallama trilineata*** Cameron. Desig. by Morley, 1913.
Inoresa Cameron, 1909. Bombay Nat. Hist. Soc. Jour. 19: 724.
Type: ***Inoresa pilosa*** Cameron. Monob.
Colpotrochioides Uchida, 1930. Fac. Agr. Hokkaido Imp. Univ. Jour. 25: 263. N. syn.
Type: ***Colpotrochioides orientalis*** Uchida. Orig. desig.

crassipes (Provancher), n. comb. Atlantic to 100° W. in U. Austr. and L. Austr. Zones.
Cteniscus crassipes Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 109. ♀.

texana (Cresson). Atlantic to 100° W. in L. Austr. Zone; southern Brazil.
Exochodes (!) ***texana*** Cresson, 1872. Amer. Ent. Soc. Trans. 4: 167. ♂.
Ischyrocnemis carolina Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 443. ♂.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 207.

trifasciata (Cresson). Atlantic to 100° W., mostly in U. Austr. Zone.
Tryphon? trifasciatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 276. ♂.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 207. ♂ ♀.

Genus TRICLISTUS Foerster

Triclistus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 161.
Type: ***Exochus podagricus*** Gravenhorst. Desig. by Morley, 1913.
Revision: Davis, 1897. Amer. Ent. Soc. Trans. 24: 212–214.

brunnipes (Cresson). Colo., Nev.
Exochus brunnipes Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 374. ♀.

fulvipes (Cresson). Transcont. in Transit. and U. Austr. Zones. In American literature, frequently recorded erroneously as the European *T. curvator*.
Exochus fulvipes Cresson, 1864. Ent. Soc. Phila. Proc. 3: 285. ♂ ♀.

propinquus (Cresson). Conn., N. Y., Md.
Exochus propinquus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 114. ♂ ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 217.

pygmaeus (Cresson). Transcont. in Canad., Transit., U. Austr., and L. Austr Zones.
Exochus pygmaeus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 285. "♂"=♀.

thoracicus Ashmead. R. I., N. J., Va., N. C., Ariz.
Triclistus thoracicus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 201. ♀.

Genus HYPSICERA Latreille

Hypsicera Latreille, 1829. *In* Cuvier, Regne Anim., ed. 2, v. 5, p. 288.
Type: (***Alomya (Hypsicera)*** sp. near ***femoralis*** Gravenhorst)= [***Ichneumon***] ***femoralis*** (Fourcroy). Monob.
Metacoelus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 161.
Type: (***Exochus femoralis*** Gravenhorst)=[***Ichneumon***] ***femoralis*** (Fourcroy). Desig. by Viereck, 1914.
Polyclistus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 161.
Type: ***Ichneumon femoralis*** Fourcroy. Desig. by Viereck, 1912.
Plesioexochus Cameron, 1905. South Afr. Philos. Soc. Trans. 15: 102.
Type: (***Plesioexochus rufipes*** Cameron)=[***Ichneumon***] ***femoralis*** (Fourcroy). Monob.

femoralis (Fourcroy). Transcont. in Canad. and Transit. Zones; Alaska. Widely distributed throughout the world. Often in houses.
Ichneumon femoralis Fourcroy, 1785. Entomologia Parisiensis, v. 2, p. 396.
Exochus laevis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 286. ♂ ♀.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 214.

mansuetor (Gravenhorst). N. H., Conn., N. Y., Mich., Wash.; Europe. Hosts: *Tineola pellionella* (L.), *Pyralis farinalis* (L.).
Ichneumon mansuetor Gravenhorst, 1807. Vergl. Übers. Zool. System., p. 254.
Hyperacmus tineae Riley, 1890. U. S. Dept. Agr. Insect Life 2: 213.
Hyperacmus ovatus Davis, 1897. Amer. Ent. Soc. Trans. 24: 218. ♀.

Genus EXOCHUS Gravenhorst

Exochus Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 328.
Type: ***Ichneumon gravipes*** Gravenhorst. Desig. by Viereck, 1912.
Amesolytus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 161.
Type: ***Amesolytus ferrugineus*** Ashmead. Included by Ashmead, 1896.
Mima Davis, 1897. Amer. Ent. Soc. Trans. 24: 206, 219. Preocc.
Type: ***Mima washingtonensis*** Davis. Monob.
Revision: Davis, 1897. Amer. Ent. Soc. Trans. 24: 214–218.

albiceps Walsh. ?Ill.
Exochus albiceps Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 96. ♂.

albifrons Cresson. Transcont. in Transit. and U. Austr. Zones. Hosts: *Archips cerasivorana* (Fitch); *Homona fervidana* Wlkr.
Exochus albifrons Cresson, 1868. Amer. Ent. Soc. Trans. 2: 114. ♀.
Biology: Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.

alpinus Cushman. N. H. (top of Mt. Washington).
Exochus alpinus Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 13. ♂.

annulicrus Walsh. ?Ill.
Exochus annulicrus Walsh, 1873. Acad. Sci. St. Louis Trans. 3: 95. ♂.

apicalis Cresson. Ont. to Fla., west to Ill. U. Austr. and L. Austr. Zones. Hosts: *Acrobasis caryivorella* Rag.; *A. juglandis* (LeB.).
Exochus apicalis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 285. ♂.
Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 213. (In part).

atriceps Walsh. Atlantic to 100° W. in Transit., U. Austr., and L. Austr. Zones.
Exochus atriceps Walsh, 1873. Acad. Sci. St. Louis Trans. 3: 95. ♂.
Exochus rufomaculatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 113. ♀.
Biology: Townes, 1939. Brooklyn Ent. Soc. Bul. 34: 29.

atrocoxalis Cresson. R. I., N. J., Dakotas, Wash.
Exochus atrocoxalis Cresson, 1868. Amer. Ent. Soc. Trans. 2: 114. ♀.

dorsalis Cresson. N. J., Md., N. C., S. C. U. Austr. Zone.
Exochus dorsalis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 286. ♂.

emarginalus (Say). Ind.
Ophion emarginalus Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 76.

Taxonomy: Say, 1835. Boston Jour. Nat. Hist. 1: 245.—Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 230.—Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 169.

evetriae Rohwer. Oreg., Idaho. Hosts: *Barbara colfaxiana siskiyouana* (Kearf.); *B. colfaxiana taxifoliella* (Busck).
Exochus (Triclistus) evetriae Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 223. ♀.

ferrugineus (Ashmead). Tex., S. Dak.
Amesolytus ferrugineus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 201. ♂ ♀.

flavifrontalis Davis. Alta., B. C., Nev., Ariz. Canad. Zone.
Exochus flavifrontalis Davis, 1897. Amer. Ent. Soc. Trans. 24: 217. ♂ ♀.

mandibularis Cushman. N. H. (top of Mt. Washington).
Exochus mandibularis Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 13. ♂.

ostentatus Davis. D. C.
Exochus ostentatus Davis, 1897. Amer. Ent. Soc. Trans. 24: 217. ♂.

pallipes Cresson. Atlantic to 100° W. in Transit. and U. Austr. Zones; also Ariz. Hosts: *Archips cerasivorana* (Fitch); *A. fervidana* (Clem.); *Argyrotaenia lutosana* (Clem.); *Homona fervidana* Wlkr.
Exochus pallipes Cresson, 1864. Ent. Soc. Phila. Proc. 3: 287. ♂.
Exochus evectus Cresson, 1872. Amer. Ent. Soc. Trans. 4:168. ♀.
Exochus pallidipes Dalla Torre, 1901. Cat. Hym., v. 3, p. 213. Emend.

pictus (Fyles). Que., Conn. Host: *Meroptera pravella* (Grote).
Amesolytus pictus Fyles, 1904. Canad. Ent. 36: 207. ♀.

pleuralis Cresson. N. Y., Md., Ill.
Exochus pleuralis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 286. ♂.

scitulus Provancher. Maine and Que. south to N. C. Transit. Zone.
Exochus scitulus Provancher, 1877. Nat. Canad. 9: 15. ♀.

semirufus Cresson. Atlantic to 100° W. in Transit. and U. Austr. Zones.
Exochus semirufus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 114. ♂ ♀.
Mesoleius inflatifrons Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 107. ♀.
Exochus rufigaster Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 443. ♀.
Exochus solitarius Davis, 1897. Amer. Ent. Soc. Trans. 24: 216. ♂.

terminalis (Ashmead). R. I., N. Y., Md., D. C.
Triclistus terminalis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 201. ♂.

washingtonensis (Davis). N. H., N. Y., Ohio.
Mima washingtonensis Davis, 1897. Amer. Ent. Soc. Trans. 24: 219. ♂.

xanthopsis Ashmead. Transcont. in Canad. and Transit. Zones.
Exochus xanthopsis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 201. ♂.

SUBFAMILY OPHIONINAE

Tribe PORIZONINI (= CAMPOPLEGINI)

This tribe includes many important parasites of economic pests. Most of the species attack lepidopterous larvae. Exceptions include those of the genus *Olesicampe* parasitic on Tenthredinidae and Diprionidae, of *Bathyplectes* and *Biolysia* parasitic on Curculionidae, and of *Pyracmon* and perhaps of *Nemeritis* parasitic on wood-boring Coleoptera.

The traditional name of the tribe is Campoplegini, and the name Porizonini has been applied to a tribe properly known as the Tersilochini. The original description of the genus *Porizon* (Fallén, 1813. Spec. Nov. Hym. Disp. Method., p. 18) applies to campoplegines rather than to tersilochines, and the only species originally referred to the genus by

name is *Ophion moderator* Fabricius (=*Ichneumon moderator* Linnaeus). This, the genotype of *Porizon*, is a member of the present tribe, related to the genus *Horogenes*. Since *Porizon* is the oldest generic name included in the tribe, the name selected for it is Porizonini.

Revision of Canadian species: Viereck, 1925 and 1926. Canad. Ent. 57: 176–181, 198–204, 223–228, 296–303; 58: 2–8, 30–38, 71–78, 122–130, 143–149, 176–182, 196–201, 219–225, 257–260, 276–283. Although Viereck here gives keys to genera and species, artificiality and inaccuracy vitiate their value.

Genus PYRACMON Holmgren

Pyracmon Holmgren, 1859. Öfvers. Svenska Vetensk. Akad. Förh. 15: 327.
Type: ***Pyracmon fumipennis*** Zetterstedt. Orig. desig.
Rhimphoctona Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 153.
Type: ***Pyracmon fulvipes*** Holmgren. Included by Woldstedt, 1877.
Helcostizidea Rohwer, 1914. Ent. Soc. Wash. Proc. 15: 185.
Type: ***Cubocephalus atrocoxalis*** Ashmead. Orig. desig.
Pyracmonoides Viereck, 1925. Canad. Ent. 57: 177, 298.
Type: ***Pyracmonoides separatum*** Viereck. Orig. desig.

Keys to species: Viereck, 1925. Canad. Ent. 57: 177–178, 180.

alaskensis (Ashmead). Alaska.
Cubocephalus alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 203. ♀.

atrocoxalis (Ashmead). Transcont. in Canad. and Huds. Zones.
Cubocephalus atrocoxalis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 203. ♀.

idahoensis Davis. Idaho (Moscow).
Pyrachmon (!) ***idahoensis*** Davis, 1898. Amer. Ent. Soc. Trans. 24: 363. ♀.

lipoparium (Viereck). Ont. (Sudbury).
Pyracmonoides lipoparium Viereck, 1925. Canad. Ent. 57: 178, 299. ♂.

macdunnoughi Viereck. Que., Alta.
Pyracmon macdunnoughi Viereck, 1925; 1926. Canad. Ent. 57: 180; 58: 5. ♀.
Campoplex (Ecphora) alternatus Viereck, 1925; 1926. Canad. Ent. 57: 202; 58: 282. ♀.

macrocephalum (Provancher). Transcont. in Canad. Zone.
Limneria macrocephala Provancher, 1874. Nat. Canad. 6: 149. ♀.
Pyrachmon (!) ***aldrichi*** Davis, 1898. Amer. Ent. Soc. Trans. 24: 363. ♂ ♀.
Cubocephalus nigricornis Ashmead, 1902. Wash. Acad. Sci. Proc. 4:203. ♀.
Pyracmonoides succineum Viereck, 1925. Canad. Ent. 57: 178, 300. ♂.
Pyracmonoides trochantericum Viereck, 1925. Canad. Ent. 57: 178, 299. ♂.

separatum (Viereck). Yukon (Ft. Cudahy).
Pyracmonoides separatum Viereck, 1925. Canad. Ent. 57: 178, 298. ♂ ♀.

vancouverensis Harrington. B. C., Wash., Calif.
Pyracmon vancouverensis Harrington, 1894. Canad. Ent. 26: 246. ♀.

xanthognatha (Rohwer). Wash., Oreg., Idaho, Mont.
Helcostizidea xanthognatha Rohwer, 1914. Ent. Soc. Wash. Proc. 15: 186. ♀.

Figure: Aldrich, 1921. Smiths. Inst. Ann. Rpt. for 1919, p. 378, pl. 11.

Genus NEMERITIS Holmgren

Nemeritis Holmgren, 1860. Svenska Vetensk. Akad. Handl. 2: 104.
Type: ***Campoplex macrocentrus*** Gravenhorst. Desig. by Viereck, 1914.

macrurus (Viereck). B. C., Wyo.
Campoplex (Campoplex) macrurus Viereck, 1925; 1926. Canad. Ent. 57: 226; 58: 146. ♀.

Genus CYMODUSA Holmgren

Cymodusa Holmgren, 1859. Öfvers. Svenska Vetensk. Akad. Förh. 15: 327.
Type: ***Cymodusa leucocera*** Holmgren. Monob.
Key to species: Viereck, 1925. Canad. Ent. 57: 179–180.

distincta (Cresson). Atlantic to 100° W. in Transit. and U. Austr. Zones. Common over lawns in spring and fall.
Mesoleptus subrubidus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 264. ♂.
Mesoleptus distinctus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 266. ♀.
Limnerium vigilis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 179. ♂.
Idechthis biconjunctus Viereck, 1906. Amer. Ent. Soc. Trans. 32: 180. ♂.
Campoplex (Nepiera) amasecontorum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 266. ♂.
Cymodusa plesius Viereck, 1925; 1926. Canad. Ent. 57: 180; 58: 4. ♀.

melanocera Viereck. Transcont. in Transit. Zone.
Cymodusa melanocera Viereck, 1925; 1926. Canad. Ent. 57: 180; 58: 3. ♂.
Cymodusa gracilicornis Viereck, 1925; 1926. Canad. Ent. 57: 180; 58: 4. ♀.

partis (Viereck). Que. (Aylmer).
Campoplex (Diadegma) partis Viereck, 1925; 1926. Canad. Ent. 57: 227; 58: 280. ♂.

provancheri Viereck. N. S. (Kentville).
Cymodusa provancheri Viereck, 1925; 1926. Canad. Ent. 57: 180; 58: 4. ♀.

Genus CYMODUSOPSIS Viereck

Cymodusopsis Viereck, 1912. U. S. Natl. Mus. Proc. 43: 588.
Type: ***Cymodusopsis aristoteliae*** Viereck. Orig. desig.

aristoteliae Viereck. Mo. (Kirkwood). Host: *Aristotelia pudibundella* (Zell.).
Cymodusopsis aristoteliae Viereck, 1912. U. S. Natl. Mus. Proc. 43: 588. ♂ ♀.

Genus CAMPOPLEX Gravenhorst

Campoplex Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 453.
Type: ***Ichneumon difformis*** Gmelin. Desig. by Westwood, 1840.
Sinophorus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 153.
Type: (***Limneria (Sinophorus) canarsiae*** Ashmead)=[***Mesoleptus***] ***validus*** (Cresson). Included by Ashmead, 1897.
Omorgus Foerster, 1868. Naturh. Ver. Rheinlande. Verh. 25: 154. Preocc.
Type: ***Limneria mutabilis*** Holmgren. Desig. by Viereck, 1912.
Omorga Thomson, 1887. Opusc. Ent., fasc. 11, pp. 1052, 1125.
Type: ***Limneria mutabilis*** Holmgren. Desig. by Viereck, 1914.
Eulimneria Schmiedeknecht, 1907. Hym. Mitteleur., p. 600.
Type: ***Ichneumon albidus*** Gmelin. Desig. by Morley, 1913.
Campoletidea Viereck, 1912. U. S. Natl. Mus. Proc. 42: 634.
Type: ***Campoplex (Campoletidea) caradrinae*** Viereck. Orig. desig.
Sesioplex Viereck, 1912. U. S. Natl. Mus. Proc. 42: 644.
Type: ***Campoplex (Sesioplex) depressus*** Viereck. Orig. desig.
Pseuderipternoides Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 268, 269.
Type: ***Limneria porrecta*** Cresson. Orig. desig.
Key to species: Viereck, 1925. Canad. Ent. 57: 225-227.

albicinctus (Viereck). B. C., Alta., Sask.
Pyracmon albicinctum Viereck, 1925; 1926. Canad. Ent. 57: 180; 58: 4. ♂ ♀.

angularis Viereck. Ont., N. Y., R. I., N. J.
Campoplex (Campoplex) angularis Viereck, 1925; 1926. Canad. Ent. 57: 226; 58: 148. ♂ ♀.

argenteus (Provancher). Transcont. in Transit. Zone.
Limneria argentea Provancher, 1874. Nat. Canad. 6: 147. ♀.
Campoplex (Campoplex) ontario Viereck, 1925; 1926. Canad. Ent. 57: 226; 58: 148. ♀.

argyresthiae (Rohwer). Oreg. (Ashland). Host: *Argyresthia libocedrella* Busck.
Phaedroctonus argyresthiae Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 162. ♂ ♀.

atridens Townes. N. Y., Ont., Mich.
Campoplex (Campoplex) erythromera Viereck, 1925; 1926. Canad. Ent. 57: 226; 58: 146. ♂. Preocc.
Campoplex atridens Townes, 1945. Amer. Ent. Soc. Mem. 11: 593. N. name.

caradrinae Viereck. Colo. (Rocky Ford). Host: *Laphygma exigua* (Hbn.).
Campoplex (Campoletidea) caradrinae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 634. ♂.

cavus Viereck. Ont. (Ottawa).
Campoplex (Campoplex) cavus Viereck, 1925; 1926. Canad. Ent. 57: 226; 58: 149. ♀.

conocola (Rohwer). B. C., Oreg., Calif. Host: *Dioryctria* sp. in cones of *Pinus coulteri*.
Pyracmon conocola Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 159. ♂ ♀.

coxalis (Cushman). N. H. (top of Mt. Washington).
Cymodusa coxalis Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 10. ♀.

cupressi (Ashmead). Alaska, Calif.
Limneria cupressi Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 437. ♀.
Phaedroctonus minutus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 235. ♀.

depressus Viereck. Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: *Gnorimoschema gallaesolidaginis* (Riley).
Campoplex (Sesioplex) depressus Viereck, 1912. U. S. Natl. Mus. Proc. 42: 644. ♀.
Sesioplex relativus Viereck, 1925; 1926. Canad. Ent. 57: 177; 58: 298. ♀.

dimidiatus (Cresson). N. Y., Ind., Ill. Host: *Gnorimoschema gallaesolidaginis* (Riley).
Mesoleptus? dimidiatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 265. ♀.
Biology: Leiby, 1922. N. Y. Ent. Soc. Jour. 30: 93.

epinotiae Viereck. Calif. (Carmel). Host: *Epinotia arctostaphylana* (Kearf.).
Campoplex epinotiae Viereck, 1912. U. S. Natl. Mus. Proc. 43: 586. ♀.

erythromerus Viereck. Ont. (Ottawa).
Campoplex (Nemeritis) erythromerus Viereck, 1925; 1926. Canad. Ent. 57: 178; 58: 177. ♀.

frustranae Cushman. Mass., Pa., Va.; introduced into Nebr. Host: *Rhyacionia frustrana* (Comst.).
Campoplex frustranae Cushman, 1927. Jour. Agr. Res. 34: 739. ♂ ♀.
Biology: Cushman, 1927. Jour. Agr. Res. 34: 618.

furus (Cresson). N. Y., Pa., Ohio, N. C., Tex.
Limneria fura Cresson, 1872. Amer. Ent. Soc. Trans. 4: 173. ♀.
Limneria melanocoxa Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 430. ♀.

fusiformis (Provancher). Atlantic to 100° W. in Transit. and U. Austr. Zones. Overgrown fields and roadsides.
Limneria fusiformis Provancher, 1874. Nat. Canad. 6: 148. ♀.
Amorphota ferruginosa Viereck, 1906. Amer. Ent. Soc. Trans. 32: 220. ♀.
Campoplex (Campoplex) grossulariflorae Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 263. ♀.
Campoplex (Campoplex) maquinnai Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 263. ♀.
Campoplex (Campoplex) pentagoetorum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 263. ♂.
Neonortonia scaposa Viereck, 1925. Canad. Ent. 57: 179, 301. ♂.
Pseuderipternoides deceptus Viereck, 1925. Canad. Ent. 57: 179, 302. ♀.
Pseuderipternoides neglectus Viereck, 1925. Canad. Ent. 57: 179, 302. ♂ ♀.
Pseuderipternoides pulchellus Viereck, 1925. Canad. Ent. 57: 179, 303. ♀.
Campoplex (Campoplex) hullensis Viereck, 1925; 1926. Canad. Ent. 57: 225; 58: 144. ♀. Preocc.

Campoplex (Campoplex) signatus Viereck, 1925; 1926. Canad. Ent. 57: 226; 58: 144. ♂.

hexagonalis (Viereck). Alta. (Lethbridge).
Pseuderipternoides hexagonalis Viereck, 1925. Canad. Ent. 57: 179, 302. ♀.

hullensis (Viereck). Que. (Hull).
Neonortonia hullensis Viereck, 1925. Canad. Ent. 57: 179, 301. ♂.

hyalinus (Provancher). Que. to N. C. Hosts: *Exartema cornanum* Heinr.; *E. permundanum* Clem.
Limneria hyalina Provancher, 1874. Nat. Canad. 6: 147. ♂ ♀.
Neonortonia crassata Viereck, 1925. Canad. Ent. 57: 179, 301. ♂.
Campoplex (Campoplex) moderatus Viereck, 1925; 1926. Canad. Ent. 57: 225; 58: 143. ♀.
Campoplex (Campoplex) deceptivus Viereck, 1925; 1926. Canad. Ent. 57: 226; 58: 146. ♀.
Taxonomy: Walley, 1933. Canad. Ent. 65: 254.

infumatus (Provancher). Que. to N. C. in Transit. Zone. Host: *Archips rosana* (L.).
Limneria infumata Provancher, 1874. Nat. Canad. 6: 148. ♀.
Campoplex (Hyposoter) parallelus Viereck, 1925; 1926. Canad. Ent. 57: 204; 58: 219. ♀.
Campoplex (Campoplex) algonquinorum Viereck, 1925; 1926. Canad. Ent. 57: 226; 58: 145. ♀.
Campoplex (Campoplex) grimsbyensis Viereck, 1926; 1926. Canad. Ent. 57: 226; 58: 145. ♀.

laspeyresiae (Rohwer). Oreg., Calif., Idaho. Host: *Laspeyresia "toreuta."*
Meleborus (!) ***laspeyresiae*** Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 161. ♀.

macer (Cresson). Colo.
Mesoleptus macer Cresson, 1865. Ent. Soc. Phila. Proc. 4: 262. ♀.

milleri (Rohwer). Oreg. (Ashland). Host: *Dioryctria abietella* (D. and S.).
Angitia milleri Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 159. ♀.

nanana Townes. Maine. Host: *Epinotia nanana* (Treit.).
Phaedroctonus epinotiae Cushman, 1935. Wash. Acad. Sci. Jour. 25: 559. ♂ ♀. Preocc.
Campoplex nanana Townes, 1945. Amer. Ent. Soc. Mem. 11: 598. N. name.

nigricinctus (Ashmead). N. J., D. C. The type series is mixed. A female from Washington, D. C., dated 3-15-48 and numbered 33290, is hereby made lectotype.
Limneria nigricincta Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 431. ♂ ♀.

nigricoxa (Provancher). Que. (Cap Rouge).
Limneria nigricoxa Provancher, 1882. Nat. Canad. 13: 364. ♀.

nigripes (Viereck). N. B., N. S.
Neonortonia nigripes Viereck, 1925. Canad. Ent. 57: 179, 300. ♂.
Neonortonia laevissima Viereck, 1925. Canad. Ent. 57: 179, 301. ♂.

nolae (Ashmead). Transcont. in Transit. Zone. Host: *Nola* sp. on *Salix* sp.
Limneria nolae Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 431. ♂ ♀.
Campoplex (Hyposoter) fuscitarsatus Viereck, 1925; 1926. Canad. Ent. 57: 203; 58: 199. ♀.
Campoplex (Campoplex) aylmerensis Viereck, 1925; 1926. Canad. Ent. 57: 226; 58: 148. ♀.

phthorimaeae (Cushman). Va., Calif. Hosts: *Keiferia glochinella* (Zell.); *Gnorimoschema operculella* (Zell.); *Phlyctaenia rubigalis* (Guen.).
Omorgus phthorimaeae Cushman, 1915. Ent. Soc. Wash. Proc. 17: 138. ♂ ♀.
Biology: Graf, 1917. U. S. Dept. Agr. Bul. 427: 38.

polychrosidis Viereck. N. Y., Md. Hosts: *Polychrosis carduana* Busck; *Platyptilia carduidactyla* (Riley).
Campoplex polychrosidis Viereck, 1912. U. S. Natl. Mus. Proc. 43: 586. ♀.

popofensis (Ashmead). Alaska (Popof. Isl.).
Zachresta popofensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 234. ♂.

porrectus (Cresson). Atlantic to Sask. and Kans. in Transit. and U. Austr. Zones.
Mesoleptus porrectus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 266. ♀.
Mesoleptus subtenuis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 267. ♂.
Limneria ruficoxa Provancher, 1875. Nat. Canad. 7: 146, 149. ♀.
Olesicampa melanerythrogaster Viereck, 1905. Kans. Acad. Sci. Trans. 19: 306. ♂ ♀.

relativus (Viereck). Kans. (Clark Co.).
Amorphota relativa Viereck, 1905. Kans. Acad. Sci. Trans. 19: 307. ♀.

ruficinctum (Viereck). Alta. (Lethbridge).
Pyracmon ruficinctum Viereck, 1925; 1926. Canad. Ent. 57: 180; 58: 5. ♂.

rufipes (Provancher). Transcont. in Canad. and Transit. Zones. Hosts: *Coleophora laricella* (Hbn.); *Recurvaria piceaella* (Kearf.); *Epinotia nanana* (Treit.).
Limneria rufipes Provancher, 1874. Nat. Canad. 6: 149. ♀.
Limneria mellipes Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 85. Lapsus for *L. rufipes*.
Campoplex (*Nemeritis*) *melanomerus* Viereck, 1925; 1926. Canad. Ent. 57: 178; 58: 177. ♂.
Campoplex (*Nemeritis*) *decoratus* Viereck, 1925; 1926. Canad. Ent. 57: 179; 58: 180. ♀.
Campoplex (*Nemeritis*) *laevis* Viereck, 1925; 1926. Canad. Ent. 57: 179; 58: 180. ♀.
Phaedroctonus piceae Cushman, 1935. Wash. Acad. Sci. Jour. 25: 560. ♂ ♀.

sulcatellus Viereck. Wash., Alta., Sask. Host: *Loxostege* sp.
Campoplex (*Campoplex*) *sulcatellus* Viereck, 1925; 1926. Canad. Ent. 57: 225; 58: 130. ♀.

tecumseh Viereck. Ont. (Jordon).
Campoplex (*Campoplex*) *tecumseh* Viereck, 1925; 1926. Canad. Ent. 57: 225; 58: 130. ♂.

temporalis (Cushman). Vt. (Groton). Host: *Laspeyresia youngana* (Kearf.).
Phaedroctonus temporalis Cushman, 1935. Wash. Acad. Sci. Jour. 25: 560. ♀.

tineavora (Rohwer). Oreg. (Mistletoe). Host: *Tineid* in *Polyporus dryophilus*.
Angitia tineavora Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 160. ♂ ♀.

tortricidis (Cushman). Transcont. in Transit. and Canad. Zones. Hosts: *Grapholitha molesta* Busck; *Polychrosis viteana* (Clem.).
Omorgus tortricidis Cushman, 1915. Ent. Soc. Wash. Proc. 17: 137. ♂ ♀.
Biology: Cushman, 1926. Ent. Soc. Wash. Proc. 28: 50.

ultimus Viereck. Ont., Wash., Oreg. Transit. Zone.
Campoplex (*Campoplex*) *ultimus* Viereck, 1925; 1926. Canad. Ent. 57: 226; 58: 147. ♀.

uniformis Viereck. Alta. (Banff).
Campoplex (*Nemeritis*) *uniformis* Viereck, 1925; 1926. Canad. Ent. 57: 178; 58: 177. ♂.

valens (Cresson). Colo.
Mesoleptus valens Cresson, 1865. Ent. Soc. Phila. Proc. 4: 261. ♀.
Casinaria compacta Davis, 1898. Amer. Ent. Soc. Trans. 24: 362. ♀.

validus (Cresson). Transcont. in Transit. and U. Austr. Zones. Hosts: *Acleris minuta* (Rob.); *Phlyctaenia tertialis* (Guen.); *Psorosina hammondi* (Riley); *Calocalpe undulata* (L.); *Malacosoma americanum* (F.); *M. disstria erosum* (Stretch); *Hemerocampa leucostigma* (A. and S.) *Notolophus antiquus* (L.); *Nygmia phaeorrhea* (Don.); *Porthetria dispar* (L.); *Ichthyura inclusa* (Hbn.); *I. strigosa* Grote; *Schizura concinna* (A. and S.); *Cycnia tenera* Hbn.; *Euchaetias egle* (Drury); *Hyphantria cunea* (Drury); *Isia isabella* (A. and S.). Parasites: *Dibrachys cavus* (Wlkr.); *Perilampus hyalinus* Say.
Mesoleptus? validus Cresson, 1864. Ent. Soc. Phila. Proc. 3:258. ♂ ♀.
Mesoleptus montanus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 261. ♀.
Limneria excavata Provancher, 1875. Nat. Canad. 7: 146, 149. ♀.
Limneria teratis Weed, 1887. Ill. State Lab. Nat. Hist. Bul. 3: 40. ♀.
Limneria (*Sinophorus*) *canarsiae* Ashmead, 1897. Ent. Soc. Wash. Proc. 4: 126. ♀.

Limnerium triste Dalla Torre, 1901. Cat. Hym., v. 3, p. 105. Lapsus for *L. teratis* Weed.
Amorphota augusta Viereck, 1906. Amer. Ent. Soc. Trans. 32: 180. ♀.
Campoplex (Ecphora) canadensis Viereck, 1925; 1926. Canad. Ent. 57: 203; 58: 282. ♀.
Campoplex (Campoplex) juxtus Viereck, 1925; 1926. Canad. Ent. 57: 226; 58: 147. ♀.
Campoplex (Campoplex) militaris Viereck, 1925; 1926. Canad. Ent. 57: 226; 58: 147. ♀.
Biology: Howard, 1897. U. S. Dept. Agr. Div. Ent. Tech. Ser. 5: 23.—Smith, 1912. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 19: 43–44, 49–57, 62.—Timberlake, 1912. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 19: 71–92.—Tothill, 1922. Canad. Dept. Agr. Bul. (n. s.) 3: 74–76.—Cushman, 1926. Ent. Soc. Wash. Proc. 28: 31, 43.—Balduf, 1929. Ohio Jour. Sci. 29: 235.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 152.
Morphology: Timberlake, 1912. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 19: 71–92.

Genus NYTHOBIA Foerster

Nythobia Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 153.
Type: ***Meloboris pusio*** Holmgren. Included by Schmiedeknecht, 1907.

brachyurus (Viereck). Ont. (Georgetown).
Campoplex (Nemeritis) brachyurus Viereck, 1925; 1926. Canad. Ent. 57: 178; 58: 178. ♀.

minuta Cushman. N. H., Wis.
Nythobia minuta Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 19. ♀.

Genus IDECHTHIS Foerster

Idechthis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 154. ?Preocc.
Type: (***Idechthis oahuensis*** Ashmead) = [***Campoplex***] ***canescens*** (Gravenhorst). Included by Ashmead, 1901.
Key to species: Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 185.

canescens (Gravenhorst). Worldwide, in buildings where cereals are stored. Male unknown. Hosts: *Ephestia cautella* (Wlkr.); *E. figulilella* Greg.; *E. kuehniella* Zell.; *Plodia interpunctella* (Hbn.); *Galleria mellonella* (L.).
Campoplex canescens Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 555. ♀.
Cryptus ductilis Say, 1836. Boston Jour. Nat. Hist. 1: 233. ♀.
Campoplex frumentarius Rondani, 1877. Soc. Ent. Ital. Bul. 9: 169.
Biology: Chittenden, 1911. U. S. Dept. Agr., Bur. Ent. Bul. 104:30.—Richmond, 1925. Colo. State Ent. Cir. 47: 74.—Diamond, 1929. Ent. Soc. Ontario Ann. Rpt. 60: 84–89.—Dunham, 1929. Amer. Bee Jour. 69: 396.—Back and Cotton, 1938. U. S. Dept. Agr. Farmers' Bul. 1260 (rev.): 43.
Taxonomy: Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 161.

erythropus (Ashmead). Tex.
Limneria erythropus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 431. ♂.

gelechiae (Ashmead). N. Y., N. J., Mo., Kans. Host: *Fascista cercerisella* (Chamb.).
Limneria gelechiae Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 432. ♀.

nigricoxalis Cushman. N. Y. and Mich. south to Ga. Hosts: *Sanninoidea exitiosa* (Say); *Grapholitha molesta* (Busck); *Euzophera semifuneralis* (Wlkr.).
Idechthis nigricoxalis Cushman, 1915. U. S. Natl. Mus. Proc. 48:512. ♂ ♀.

nigriscapus Viereck. Ont. to S. C. Transit., U. Austr., and L. Austr. Zones.
Idechthis nigriscapus Viereck, 1921. Psyche 28: 77. ♀.
Idechthis mimicus Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 185. ♂.

sokanakiakorum (Viereck). Que. (Gaspé Peninsula), N. Y., Conn., Pa., N. J.
Casinaria (Idechthis) sokanakiakorum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 270. ♂.

Genus CASINARIA Homgren

Casinaria Holmgren, 1859. Öfvers. Svenska Vetensk. Akad. Förh. 15: 325.
Type: ***Campoplex tenuiventris*** Gravenhorst. Monob.

Amorphota Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 151.
Type: (***Amorphota orgyiae*** Howard) = [***Limneria***] ***limenitidis*** Howard. Included by Howard, 1897.

Campotrephus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 152.
Type: ***Casinaria tenuiventris*** Gravenhorst. Desig. by Viereck, 1914.

Alcima Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 152.
Type: ***Casinaria tenuiventris*** Gravenhorst. Desig. by Viereck, 1914.

Anempheres Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 154.
Type: (***Anempheres diaphaniae*** Viereck) = [***Limneria***] ***infesta*** Cresson. Included by Viereck, 1911.

Trophocampa Schmiedeknecht, 1907. Hym. Mitteleur., v. 2, p. 598.
Type: ***Casinaria mesozosta*** Gravenhorst. Monob.

Fiebrigia Viereck, 1912. U. S. Natl. Mus. Proc. 42: 638.
Type: ***Campoplex texanus*** Ashmead. Orig. desig.

Neonortonia Viereck, 1912. U. S. Natl. Mus. Proc. 43: 592.
Type: ***Casinaria (Neonortonia) genuina*** Norton. Orig. desig.

Zastenomorpha Viereck, 1921. Psyche 28: 81.
Type: ***Zastenomorpha lamina*** Viereck. Monob.

Zastenogastra Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 259.
Type: ***Zastenogastra graciliventris*** Viereck. Desig. by Viereck, 1926.

Revision: Walley, 1947. Sci. Agr. 27: 364–395.

affinis Walley. Que. to S. C., west to Colo. Transit., U. Austr., and L. Austr. Zones.
Casinaria affinis Walley, 1947. Sci. Agr. 27: 394. ♂ ♀.

ambigua (Townes). Tex.
Nematopodius texanus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 414. Preocc.
Charops ambigua Townes, 1945. Amer. Ent. Soc. Mem. 11: 607. N. name.

canadensis Walley. Que., Ont., N. Y., Mich., Md.
Casinaria canadensis Walley, 1947. Sci. Agr. 27: 390. ♂ ♀.

cavigena Walley. Calif. (Monterey Co.).
Casinaria cavigena Walley, 1947. Sci. Agr. 27: 379. ♀.

claviventris Holmgren. Ont., Sask.; Europe.
Casinaria claviventris Holmgren, 1858. Svenska Vetensk. Akad. Handl. 2: 49. ♂ ♀.
Casinaria pinguis Walley, 1947. Sci. Agr. 27: 386. ♂ ♀. N. syn.

coloradensis Walley. Colo. (8 mi. So. of Steamboat Springs).
Casinaria coloradensis Walley, 1947. Sci. Agr. 27: 371. ♀.

corrupta Walley. Tex.
Casinaria corrupta Walley, 1947. Sci. Agr. 27: 385. ♂ ♀.

eupitheciae Viereck. Transcont. in Canad. and Transit. Zones, in the Atlantic States occurring also in parts of the U. Austr. Zone. Known also from Ecuador. Hosts: *Eupithecia gibsonata* Tayl.; *E. helveticaria* Bdvl.; *E. luteata* Pack.; *E. miserulata* Grote; *E. palpata* Pack.
Casinaria eupitheciae Viereck, 1912. U. S. Natl. Mus. Proc. 43: 586. ♂ ♀.
Campoplex (Hypothereutes) impetitus Viereck, 1925; 1926. Canad. Ent. 57: 204; 58: 223. ♀.

forcipata Walley. N. B. to Alta., south to Md. Apparently the same species also in Tex., N. Mex., Ariz., and south. Calif. Hosts: *Physostegania pustularia* (Guen.); *Semiothisa granitata* (Guen.); *S. oweni* Swett; *S. sexmaculata* (Pack.).
Casinaria forcipata Walley, 1947. Sci. Agr. 27: 393. ♂ ♀.

genuina (Norton). Transcont. in Canad., Transit., and U. Austr. Zones. Hosts: *Acronicta oblinita* (A. and S.); *Apantesis virgo* (L.); *Estigmene acrea* (Drury); *Hyphantria cunea* (Drury).
Campoplex genuinus Norton, 1863. Ent. Soc. Phila. Proc. 1: 367. ♂ ♀.

Mesoleptus major Cresson, 1864. Ent. Soc. Phila. Proc. 3: 257. ♂.
Campoplex niger Provancher, 1879. Nat. Canad. 11: 148. ♀.
Exetastes provancheri Dalla Torre, 1901. Cat. Hym., v. 3, p. 73. N. name for *C. niger*.
Anephares (!) ***rufipes*** Hancock, 1911. Nature Sketches in Temperate America, p. 177. ♀.
Biology: Hancock, 1911. Nature Sketches in Temperate America, p. 177.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 149.

geometrae geometrae Walley. N. S., Que., and Ont. south to N. C. Hosts: *Caripeta angustiorata* Wlkr.; *C. divisata* Wlkr.; *Eufidonia notataria* Wlkr.; *Paraphia piniata* Pack.; *Protoboarmia porcelaria* (Guen.); *Semiothisa granitata* (Guen.).
Casinaria geometrae geometrae Walley, 1947. Sci. Agr. 27: 380. ♂ ♀.

geometrae occidentalis Walley. B. C. to San Francisco, Calif. Hosts: *Sabulodes caberata* Guen.; *Semiothisa granitata* (Guen.).
Casinaria geometrae occidentalis Walley, 1947. Sci. Agr. 27: 382. ♂ ♀.

infesta (Cresson). Atlantic to 100° W. in U. Austr. and L. Austr. Zones; Mexico; Hawaii. Hosts: *Ancylis comptana* (Froel.); *Diaphania hyalinata* (L.); *Hymenia fascialis* Cram.; *H. perspectalis* Hbn.; *H. recurvalis* (F.); *Loxostege obliteralis* (Wlkr.); *Mimorista flavidissimalis* (Grote); *Pachyzancla bipunctalis* (F.); *Phlyctaenia rubigalis* Guen.; *Autographa falcifera* (Kby.).
Limneria infesta Cresson, 1872. Amer. Ent. Soc. Trans. 4: 172. ♀.
Limneria sessilis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 433. ♀. Preocc.
Limneria? erythrogaster Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 434. ♀.
Limnerium ashmeadii Dalla Torre, 1901. Cat. Hym., v. 3, p. 90. N. name for *L. sessilis*.
Angitia autumnalis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 181. ♀.
Anempheres diaphaniae Viereck, 1911. U. S. Natl. Mus. Proc. 40: 188. ♀.
Biology: Ball *et al.*, 1935. U. S. Dept. Agr. Tech. Bul. 463: 40.

lamina (Viereck). Mass. to Va., west to Iowa. Host: *Proteides clarus* (Cram).
Zastenomorpha lamina Viereck, 1921. Psyche 28: 81. ♀.

limenitidis (Howard). Atlantic to 100° W. in Transit., U. Austr., and L. Austr. Zones; also B. C. Hosts: *Malacosoma americanum* (F.); *Hemerocampa leucostigma* (A. and S.); *Notolophus antiquus* (L.); *Olene basiflava* (Pack.); *O. plagiata* Wlkr.; *Catocala antinympha* (Hbn.); *Hyphantria cunea* (Drury); *Basilarchia archippus* (Cram.).
Limneria limenitidis Howard, 1889. *In* Scudder, Butterflies of Eastern U. S., v. 3, p. 1883. ♂.
Amorphota orgyiae Howard, 1897. U. S. Dept. Agr. Div. Ent. Tech. Ser. 5: 20–21, 53.
?***Pseudocasinaria ceanothi*** Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 270. ♂. N. syn.
Neonortonia graciliforma Viereck, 1925. Canad. Ent. 57: 179, 300. ♂.
Biology: Howard, 1889. *In* Scudder, Butterflies of Eastern U. S., v. 3, p. 1883.—Howard, 1897. U. S. Dept. Agr. Div. Ent. Tech. Ser. 5: 20–21, 53.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 149.

scabriformis Viereck. Atlantic to 100° W. in U. Austr. Zone. Host: *Eupithecia miserulata* Guen.
Casinaria scabriformis Viereck, 1912. U. S. Natl. Mus. Proc. 42: 635. ♀.

semiothisae Walley. In Canada, transcont. in Transit. and Canad. Zones; in U. S. known only from Maine (Casco). Hosts: *Semiothisa bisignata* (Wlkr.); *S. granitata* (Guen.); *S. sexmaculata* (Pack.); *Caripeta divisata* Wlkr.
Casinaria semiothisae Walley, 1941. Canad. Ent. 73: 169. ♂ ♀.

tenuiceps Walley. Ga., Md.
Casinaria tenuiceps Walley, 1947. Sci. Agr. 27: 378. ♂ ♀.

texana (Ashmead). Fla., La., Tex. Host: *Sabine stimulea* Clem.
Campoplex texanus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 427. ♀.
Casinaria grandis Walley, 1947. Sci. Agr. 27: 376. N. name.

vadosa Walley. Md., Ga., Tex.
Casinaria vadosa Walley, 1947. Sci. Agr. 27: 395. ♀.

Genus CHAROPS Holmgren

Charops Holmgren, 1859. Öfvers. Svenska Vetensk. Akad. Förh. 15: 324.
Type: (***Campoplex decipiens*** Gravenhorst) = [***Ichneumon***] ***cantator*** (De Geer). Monob.
Zacharops Viereck, 1912. U. S. Natl. Mus. Proc. 42: 646.
Type: ***Charops annulipes*** Ashmead. Orig. desig.

annulipes Ashmead. Md., Va., Mo. Overgrown fields. Host: *Tarachidia erastrioides* (Guen.).
Charops annulipes Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 414. ♂.

Genus BATHYPLECTES Foerster

Canidia Holmgren, 1860. Svenska Vetensk. Akad. Handl. 2: 103. Preocc.
Type: (***Canidia pusilla*** Holmgren) = [***Campoplex***] ***exiguus*** (Gravenhorst). Desig. by Viereck, 1914.
Bathyplectes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 156.
Type: ***Canidia exigua*** Gravenhorst. Desig. by Viereck, 1914.
Canidiella Ashmead, 1900. Canad. Ent. 32: 368. N. name for *Canidia*.
Key to species: Viereck, 1925. Canad. Ent. 57: 224–225.

bryanti (Viereck). Alta. (Bilby).
Campoplex (Bathyplectes) bryanti Viereck, 1925; 1926. Canad. Ent. 57: 225; 58: 223. ♀.

curculionis (Thomson). Idaho, Nev., Calif., Utah, Colo. Introduced from Europe. Host: *Hypera postica* (Gyll.). Parasites: *Catolaccus aeneoviridis* (Gir.); *Dibrachys cavus* (Wlkr.); *Eupelmella vesicularis* (Retz.); *Eupteromalus* sp.; *Habrocytus* spp.; *Tetrastichus bruchophagi* Gahan.
Canidia Curculionis Thomson, 1887. Opusc. Ent., fasc. 11, p. 1113. ♀.
Biology: Webster, 1912. U. S. Dept. Agr. Bur. Ent. Bul. 112: 38.—Hagan, 1919. Calif. Dept. Agr. Monthly Bul. 8: 470.—List and Wakeland, 1919. Colo. State Ent. Cir. 27: 34.—Wakeland, 1920. Colo. State Ent. Cir. 28: 28.

exiguus (Gravenhorst). Transcont. in Transit. Zone; Europe. Hosts: *Hypera nigrirostris* (F.); *H. punctata* (F.); *H. rumicis* (L.).
Campoplex exiguus Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 499. ♀.
Limneria sessilis Provancher, 1875. Nat. Canad. 7: 148, 149. ♀.
Campoplex (Bathyplectes) etemankiakorum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 263. ♂.
Campoplex (Bathyplectes) phytonomi Viereck, 1925; 1926. Canad. Ent. 57: 225; 58: 222. ♂ ♀.
Biology: Detwiler, 1923. Cornell Univ. Agr. Expt. Sta. Bul. 420: 19.—Chamberlain, 1933. Ent. Soc. Wash. Proc. 35: 106.

Genus BIOLYSIA Schmiedeknecht

Biolysia Schmiedeknecht, 1907. Hym. Mitteleur., p. 601.
Type: ***Nepiesta marginella*** Thompson. Monob.

tristis (Gravenhorst). Md., Va., N. C., Ala. U: Austr. Zone. Introduced from Europe. Adults late fall to early spring. Host: *Hypera punctata* (F.).
Campoplex tristis Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 492. ♂ ♀.
Biology: Dicke, 1937. Jour. Econ. Ent. 30: 375–376.

Genus CAMPOLETIS Foerster

Sagaritis Holmgren, 1859. Öfvers. Svenska Vetensk. Akad. Förh. 15: 325. Preocc.
Type: (***Campoplex declinator*** Gravenhorst)=[***Ichneumon***] ***dilatator*** (Thunberg). Orig. desig.
Campoletis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 157.
Type: ***Mesoleptus tibiator*** Cresson. Included by Houghton, 1907.
Sagaritopsis Hincks, 1944. Ent. Soc. London Proc. (B) 13: 36. N. name for *Sagaritis*.
Keys to species: Viereck, 1925. Canad. Ent. 57: 198–201, 229.—Walley, 1927. Canad. Ent. 59: 227–231.

apicatus (Viereck). Ont. (Sudbury).
Sagaritis apicatus Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 128. ♀.

aprilis (Viereck). Transcont. in Transit. Zone.
Sagaritis aprilis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 263. ♂.
Sagaritis bigelowi Viereck, 1925; 1926. Canad. Ent. 57: 198; 58: 33. ♀.
Sagaritis citrinus Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 123. ♀.

argentifrons (Cresson). Transcont. in Transit. Zone.
Mesoleptus dubitatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 259. ♀.
Mesoleptus argentifrons Cresson. 1864. Ent. Soc. Phila. Proc. 3: 261. ♂.
Mesoleptus vicinus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 268. ♀.
Limnerium provancheri Dalla Torre, 1901. Cat. Hym., v. 3, p. 102. N. name for *M. dubitatus*.
Sesioplex heliaeformis Viereck, 1925. Canad. Ent. 57: 177, 298. ♀.
Sagaritis strigosus Viereck, 1925; 1926. Canad. Ent. 57: 199; 58: 73. ♂ ♀.
Sagaritis evansi Viereck, 1925; 1926. Canad. Ent. 57: 199; 58: 74, 129. ♀.
Sagaritis englishi Viereck, 1925; 1926. Canad. Ent. 57: 199; 58: 75. ♀.
Sagaritis conspicuosus Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 123. ♂.
Sagaritis inconspicuosus Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 123. ♂.
Sagaritis interruptus Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 127, 129. ♂.

atkinsoni (Viereck). Alta., Sask., Man. Host: *Euxoa ochrogaster* (Guen.).
Sagaritis atkinsoni Viereck, 1925; 1926. Canad. Ent. 57: 199; 58: 38, 129. ♂.
Sagaritis teulonensis Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 124, 129. ♂ ♀.
Biology: King and Atkinson, 1928. Ent. Soc. Amer. Ann. 21: 173–174, 185.

atypicus (Viereck). Que., Ont., Alta.
Sagaritis atypicus Viereck, 1925; 1926. Canad. Ent. 57: 198; 58: 36. ♀.
Sesioplex canadensis Cushman, 1930. U. S. Natl. Mus. Proc. 76 (25): 8. ♂ ♀.

australis (Viereck). Sask., Alta., B. C., Wash., Wyo., N. Mex. Transit., Canad., and Huds. Zones.
Limnerium australis Viereck, 1903. Amer. Ent. Soc. Trans. 29: 90. ♀.

banksi (Viereck). Va. (Falls Church).
Campoplex banksi Viereck, 1921. Psyche 28: 72. ♀.

californicus (Holmgren). Calif.
Sagaritis californica Holmgren, 1868. Eug. Resa I, Zool. I, Ins., p. 418. ♂.

clavatus (Provancher). Transcont. in Transit. Zone.
Limneria clavata Provancher, 1875. Nat. Canad. 7: 148, 149. "♀" = ♂.
Sagaritis conjunctiformis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 262. ♂.
Sagaritis xanthotaenius Viereck, 1925; 1926. Canad. Ent. 57: 198; 58: 37. ♀.
Sagaritis latus Viereck, 1925; 1926. Canad. Ent. 57: 198; 58: 37. ♀.
Sagaritis hexagonalis Viereck, 1925; 1926. Canad. Ent. 57: 199; 58:37. ♂.
Sagaritis beaulieui Viereck, 1925; 1926. Canad. Ent. 57: 199; 58: 38. ♂.
Sagaritis basalis Viereck, 1925; 1926. Canad. Ent. 57: 201; 58: 128. ♂ ♀.
Sagaritis garretti Viereck, 1925; 1926. Canad. Ent. 57: 201; 58: 129. ♀.
Sagaritis nigriscaposus var. *rufitrochanteralis* Walley, 1927. Canad. Ent. 59: 232. ♀.

clitellarius (Walley). B. C. (Oliver).
Sagaritis clitellarius Walley, 1927. Canad. Ent. 59: 232. ♂.

compactus (Provancher). B. C., Wash. Transit. Zone.
Limneria compacta Provancher, 1885. Canad. Ent. 17: 116. ♀.
Sagaritis downsi Viereck, 1925; 1926. Canad. Ent. 57: 198; 58: 36 (as *S. downesi* (!)). ♂.

conjunctus (Cresson). Ill.
Mesoleptus conjunctus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 262. ♂ ♀.

distinctus (Provancher), n. comb. Transcont. in Transit. Zone.
Limneria distincta Provancher, 1882. Nat. Canad. 3: 365. ♀.
Sagaritis apicalis Viereck, 1925; 1926. Canad. Ent. 57: 198; 58: 36. ♂.

diversus (Viereck). Alta. (Waterton).
Sagaritis diversus Viereck, 1925; 1926. Canad. Ent. 57: 198; 58: 33. ♀.

flavicinctus (Ashmead). Ind., Ohio. Host: *Prodenia ornithogalli* Guen.
Limneria flavicincta Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 436. ♂.
Limnerium (Campoletis) prodeniae Viereck, 1911. U. S. Natl. Mus. Proc. 40: 190. ♂ ♀.

gorhami (Viereck). N. S. (Annapolis).
Sagaritis gorhami Viereck, 1925; 1926. Canad. Ent. 57: 199; 58: 73. ♀.

heliae (Ashmead). D. C. Host: *Epizeuxis aemula* (Hbn.).
Limneria heliae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 194. ♂.
Limnerium beliae (!) Dalla Torre, 1901. Cat. Hym., v. 3, p. 97. *Lapsus.*

hoppingi (Viereck). B. C., Wash.
Sagaritis hoppingi Viereck, 1925; 1926. Canad. Ent. 57: 199; 58: 76. ♂.

imperfectus (Viereck). Sask., Ont.
Sagaritis imperfectus Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 127, 129. ♀.

incompletus (Viereck). Ont. (Ottawa).
Sagaritis incompletus Viereck, 1925; 1926. Canad. Ent. 57: 199; 58: 71. ♂.

intermedius (Viereck). B. C., Wash., Oreg., Calif. Transit. Zone.
Sagaritis intermedius Viereck, 1925; 1926. Canad. Ent. 57: 198; 58: 34. ♂.
Sagaritis trakas Viereck, 1925; 1926. Canad. Ent. 57: 199; 58: 126. ♀.
Sagaritis taylori Viereck, 1925; 1926. Canad. Ent. 57: 201; 58: 126. ♀.

kingi (Viereck). Sask. (Saskatoon).
Sagaritis kingi Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 77, 129. ♀.

linearis (Viereck). Sask. (Saskatoon).
Sagaritis linearis Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 76. ♂.

lipomerus (Viereck). N. Y., Ont., Sask., Alta. Transit. Zone.
Sagaritis lipomerus Viereck, 1925; 1926. Canad. Ent. 57: 198; 58: 32. ♂ ♀.
Sagaritis rufiscapus Viereck, 1925; 1926. Canad. Ent. 57: 199; 58: 75. ♂.

maius (Viereck). B. C. (Oliver).
Sagaritis maius Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 125, 129. ♂.

medius (Viereck). Ont. (Sudbury).
Sagaritis medius Viereck, 1925; 1926. Canad. Ent. 57: 198; 58: 34. ♀.

melanocerus (Viereck.) Ont. (Grimsby).
Sagaritis melanocerus Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 123. ♂.

melanomerus (Viereck). N. H. (Mt. Washington).
Sagaritis melanomerus Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 122. ♂.

nigricoxus (Viereck). Alta. (Bilby).
Sagaritis nigricoxus Viereck, 1925; 1926. Canad. Ent. 57: 199; 58: 74. ♀.

nigripes (Cresson). Ill., Sask., Alta.
Mesoleptus nigripes Cresson, 1864. Ent. Soc. Phila. Proc. 3: 267. ♀.
Mesoleptus hostilis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 267. ♂.

nigriscaposus (Viereck). Sask. (Saskatoon).
Sagaritis nigriscaposus Viereck, 1925; 1926. Canad. Ent. 57: 201; 58: 128. ♂.

oxylus (Cresson). Transcont. in Transit. and U. Austr. Zones. Hosts: Crambid on *Triticum aestivum* and other grasses, *Cirphis unipuncta* (Haw.), *Epiglaea apiata* (Grote), *Laphygma frugiperda* (A. and S.), *Nephelodes violans* Guen., *Oligia fractilinea* (Grote), *Papaipema nebris* (Guen.).
Mesoleptus oxylus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 262. ♂ ♀.
Limneria occidentalis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 432. ♀.
Limneria nephelodis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 194. ♂.
Limnerium lawrencei Viereck, 1906. Amer. Ent. Soc. Trans. 32: 178. ♀.
Sagaritis ruficoxalis Viereck, 1916. Biol. Soc. Wash. Proc. 29: 170. ♂ ♀.
Sagaritis nigrisignatus Viereck, 1925; 1926. Canad. Ent. 57: 199; 58: 71. ♂ ♀.
Sagaritis stramineiscapus Viereck, 1925; 1926. Canad. Ent. 57: 201; 58: 126. ♀.

Biology: Lowry, 1927. N. H. Agr. Expt. Sta. Tech. Bul. 34: 22.—Beckwith and Driggers, 1928. N. J. Agr. Expt. Sta. Ann. Rpt. 48: 139.—Beckwith, 1929. N. Y. Ent. Soc. Jour. 37: 415.

pacificus (Walley). Wash., Oreg., Calif. Transit. and Canad. Zones.
Sagaritis ruficrus var. *pacificus* Walley, 1927. Canad. Ent. 59: 233, 234. ♂.

parasignatus (Walley). Sask. (Indian Head).
Sagaritis parasignatus Walley, 1927. Canad. Ent. 59: 232. ♀.

patsuiketorum (Viereck). Transcont. in Transit. Zone. Hosts: *Grapholitha molesta* (Busck); *Loxostege sticticalis* (L.); *Phlyctaenia tertialis* (Guen.).
Sagaritis patsuiketorum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 262. ♀.
Sagaritis unicolor Viereck, 1925; 1926. Canad. Ent. 57: 198; 58: 33. ♂ ♀.
Sagaritis lipopus Viereck, 1925; 1926. Canad. Ent. 57: 198; 58: 35. ♀.
Sagaritis cingulatus Viereck, 1925; 1926. Canad. Ent. 57: 198; 58: 35. ♂ ♀.
Sagaritis melanosomus Viereck, 1925; 1926. Canad. Ent. 57: 199; 58: 71. ♀.

perdistinctus (Viereck). Atlantic to 100° W. in Transit., U. Austr., and L. Austr. Zones. Frequently treated in literature under the erroneous names *Sagaritis dubitatus* and *S. provancheri*, and reported on the following hosts: *Grapholitha molesta* (Busck); *Hymenia recurvalis* (F.); *Pyrausta nubilalis* (Hbn.); *Agrotis ypsilon* (Rott.); *Autographa* sp.; *Ceramica picta* (Harr.); *Dargida procincta* (Grote); *Feltia* sp.; *Heliothis armigera* (Hbn.); *Lacinipolia stricta* (Wlkr.); *Laphygma exigua* (Hbn.); *L. frugiperda* (A. and S.); *Morrisonia confusa* (Hbn.); *Neleucania* sp.; *Peridroma margaritosa* (Haw.); *Prodenia ornithogalli* Guen.; *Vanessa atalanta* (L.). Parasites: "*Hemiteles*" sp.; *Catolaccus aeneoviridis* (Gir.).
Limnerium perdistinctus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 304. ♀.
Amorphota nocturna Viereck, 1905. Kans. Acad. Sci. Trans. 19: 308. ♂.
Sagaritis trochanteralis Viereck, 1925; 1926. Canad. Ent. 57: 199; 58: 75. ♀.
Sagaritis twinni Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 72. ♂ ♀.
Sagaritis modestus Viereck, 1925; 1926. Canad. Ent. 57: 201; 58: 126. ♂.
Biology: Luginbill, 1928. U. S. Dept. Agr. Tech. Bul. 34: 61–63.—Vickery, 1929. U. S. Dept. Agr. Tech. Bul. 138: 36–38.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 151.

plenus (Provancher). Transcont. in Transit. Zone.
Limneria plena Provancher, 1875. Nat. Canad. 7: 146, 149. ♀.
Sagaritis chrystali Viereck, 1925. Canad. Ent. 57: 200; 58: 77. ♀.

rufosignatus (Viereck). Ont. (Jordon).
Sagaritis rufosignatus Viereck, 1925; 1926. Canad. Ent. 57: 198; 58: 34. ♂.

septentrionalis (Viereck). Alta., B. C., Wash.
Sagaritis septentrionalis Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 76. ♀.
Sagaritis aequalis Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 122. ♂ ♀.
Sagaritis laevis Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 124, 129. ♂ ♀.
Sagaritis ruficrus Viereck, 1925; 1926. Canad. Ent. 57: 201; 58: 127. ♂.
Sagaritis approximalis Walley, 1927. Canad. Ent. 59: 231. ♂.
Sagaritis vierecki Walley, 1927. Canad. Ent. 59: 233. ♂ ♀.

signatus (Viereck). B. C. (Oliver).
Sagaritis signatus Viereck, 1925; 1926. Canad. Ent. 57: 199; 58: 72. ♀.

striatipes (Ashmead). N. Mex. (11,000 ft. in Las Vegas Range), N. H. (Mt. Madison).
Limneria striatipes Ashmead, 1901. Psyche 9: 148. ♂ ♀.

taeniolatus (Viereck). N. Mex. (Beulah).
Limnerium taeniolata Viereck, 1903. Amer. Ent. Soc. Trans. 29: 91. ♂.

tibialis (Viereck). B. C., Wash.
Sagaritis tibialis Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 77. ♀.

tibiator (Cresson). Atlantic to 100° W. in Transit. and U. Austr. Zones.

Mesoleptus tibiator Cresson, 1864. Ent. Soc. Phila. Proc. 3: 259. ♂.
Ischnoscopus taeniatus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 305. ♀.

websteri (Viereck). Alta., Wash., Oreg. Hosts: *Choreutis balsamorhizella* Busck; *Autographa californica* (Speyer).
Limnerium (Angitia) websteri Viereck, 1910. U. S. Natl. Mus. Proc. 38: 382. ♀.
Sagaritis julius Viereck, 1925; 1926. Canad. Ent. 57: 200; 58: 125. ♂.
Biology: Hyslop, 1912. U. S. Dept. Agr. Bur. Ent. Bul. 95: 115.

yakutatensis (Ashmead). Alaska (Yakutat).
Ischnoscopus yakutatensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 236. ♂.

Genus ECPHOROPSIS Ashmead

Ecphora Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 154. Preocc.
Type: ***Campoplex viennensis*** Gravenhorst. Desig. by Viereck, 1914.
Ecphoropsis Ashmead, 1900. Canad. Ent. 32: 368. N. name.

longiceps Roman. Greenland; northern Siberia.
Ecphoropsis longiceps Roman, 1914. (1926?). Pétersburg Acad. Mém. 29 (7): 13. ♂.
Taxonomy: Roman, 1933. Skrifter om Svalbard og Ishavet 53: 11. ♀.

Genus SPUDASTICA Foerster

Spudastica Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 155.
Type: (***Spudastica petiolaris*** Thomson)=[***Limneria***] ***kriechbaumeri*** (Bridgman). Included by Thomson, 1887.

canadensis Walley. Que., Ont.
Spudastica canadensis Walley, 1944. Canad. Ent. 76: 157. ♀.

Genus DUSONA Cameron

Campoplex of authors, not of the genotype.
Dusona Cameron, 1901. New Zealand Inst. Trans. 33: 107.
Type: ***Dusona stramineipes*** Cameron. Monob.
Anisitsia Viereck, 1912. U. S. Natl. Mus. Proc. 42: 632. Preocc.
Type: ***Campoplex villosus*** Norton. Orig. desig.
Campoplegidea Viereck, 1912. U. S. Natl. Mus. Proc. 42: 633.
Type: ***Campoplex oxyacanthae*** Boie. Orig. desig. N. syn.
Pseudocasinaria Viereck, 1912. U. S. Natl. Mus. Proc. 42: 644.
Type: ***Casinaria americana*** Ashmead. Orig. desig.
Viereckiana Strand, 1914. Arch. f. Naturgesch. 80 A: 163. N. name for *Anisitsia*.
Idiosomidea Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 271.
Type: (***Campoplex photomorphus*** Viereck)=[***Campoplex***] ***bellula*** (Dalla Torre). Orig. desig.
Revision: Walley, 1940. Sci. Agr. 20: 647-734.

Parasitic on Lepidoptera, especially Geometridae, on trees and shrubs.

alia (Norton), n. comb. Mass.
Campoplex alius Norton, 1863. Ent. Soc. Phila. Proc. 1: 367. ♀.

americana (Ashmead), n. comb. Atlantic to Cont. Divide; also B. C. Transit. and U. Austr. Zones.
Casinaria americana Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 22. ♀.
Campoplegidea (Viereckiana) erythromera Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 177. ♀.

argentea (Norton), n. comb. Transcont. in Transit. Zone.
Campoplex argenteus Norton, 1863. Ent. Soc. Phila. Proc. 1: 365. ♀.
Campoplegidea citriscapa Viereck, 1925. Roy. Soc. Canada. Trans. 19 (sect. 5): 264. ♂ ♀.

assita (Norton), n. comb. N. S. to S. C., west to Mich. Transit., U. Austr., and L. Austr. Zones.
Campoplex assitus Norton, 1863. Ent. Soc. Phila. Proc. 1: 367. ♀.
Campoplegidea (Viereckiana) curvata Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 179. ♀.
Campoplegidea (Viereckiana) citripes Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 179. ♂.

associata (Walley), n. comb. Ark., La.
Campoplegidea associata Walley, 1940. Sci. Agr. 20: 673. ♂ ♀.

australis (Walley), n. comb. Ont., Md., S. C.
Campoplegidea australis Walley, 1940. Sci. Agr. 20: 715. ♂ ♀.

bellula (Dalla Torre), n. comb. Transcont. in Transit., U. Austr., and L. Austr. Zones. Dry habitats.
Campoplex bellus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 172. "♂"=♀. Preocc.
Campoplex bellulus Dalla Torre, 1901. Cat. Hym., v. 3, p. 138. N. name.
Campoplex photomorphus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 309. ♀.
Idiosomidea secunda Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 272. ♂.
Campoplegidea nitida Walley, 1940. Sci. Agr. 20: 713. ♂ ♀. N. syn.

brachiator (Say), n. comb. Que. and Mass., south to Ga. and Ala., west to Ind.
Ophion brachiator Say, 1836. Boston Jour. Nat. Hist. 1: 240.
Campoplex xanthogaster Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 159. ♀.

canadensis (Walley), n. comb. Ont., Alta., B. C.
Campoplegidea canadensis Walley, 1940. Sci. Agr. 20: 664, 665, 668. ♂ ♀.

confluens (Walley), n. comb. Que., Ont., N. Y., Mich., Wis.
Campoplegidea confluens Walley, 1940. Sci. Agr. 20: 673. ♂ ♀.

conformis (Walley), n. comb. Ariz. (Palmerlee).
Campoplegidea conformis Walley, 1940. Sci. Agr. 20: 726. ♀.

crassicornis (Provancher), n. comb. Atlantic to Cont. Divide in Transit. Zone.
Limneria crassicornis Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 88. ♂.
Campoplegidea crassata Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 267. ♂.
Campoplegidea (Viereckiana) mimeticus Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 175. ♂ ♀.
Campoplegidea (Viereckiana) sessilis Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 179. ♂.
Campoplegidea (Viereckiana) flavicoxa Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 180. ♂.

deceptor (Walley), n. comb. Atlantic to Sask., in Transit. and U. Austr. Zones.
Campoplegidea deceptor Walley, 1940. Sci. Agr. 20: 714. ♂ ♀.

diversa (Norton), n. comb. Conn., Mass., N. Y., Pa.
Campoplex diversus Norton, 1863. Ent. Soc. Phila. Proc. 1: 366. ♂ ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 148.

diversella (Walley), n. comb. Tex., Que.
Campoplegidea diversella Walley, 1940. Sci. Agr. 20: 671. ♂ ♀.

diversicolor (Viereck), n. comb. Que., Ont., N. Y.
Campoplegidea diversicolor Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 265. ♀.

downesi (Viereck), n. comb. Alta., B. C., Wash., Calif.
Campoplegidea downesi Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 265. ♂ ♀.
Campoplegidea planatella Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 267. ♂.
Campoplegidea vadosa Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 269. ♀.

egregia (Viereck), n. comb. Atlantic to 100° W., in U. Austr. and L. Austr. Zones. Shaded herbage in moist localities.
Viereckiana egregia Viereck, 1916. Biol. Soc. Wash. Proc. 29: 167. ♂ ♀.

ellopiae (Walley), n. comb. Ont., N. C. Host: *Lambdina fiscellaria fiscellaria* (Guen.). Parasite: *Itoplectis conquisitor* (Say).
Campoplegidea (Viereckiana) ellopiae Walley, 1929. Canad. Ent. 61: 22. ♂ ♀.
Biology: Schedl, 1931. Ztschr. Angew. Ent. 18: 258–260.

experta (Cresson), n. comb. Ind., Iowa, Kans., Okla., Tex., Va.
Campoplex expertus Cresson, 1872. Amer. Ent. Soc. Trans. 6: 171. "♂"= ♀.

flavescens (Walley), n. comb. Tex., Ariz., Calif. Host: *Anacamptodes fragillaria* (Grossb.).
Campoplegidea flavescens Walley, 1940. Sci. Agr. 20: 710. ♀.

fossata (Viereck), n. comb. N. H., N. J., Pa., Que., Ont., Man., Sask.
Campoctonus fossatus Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 182. ♂.

fuscitarsis (Viereck), n. comb. Que. and Ont. to N. C. Transit. Zone.
Campoplegidea (Viereckiana) fuscitarse Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 175. ♀.

glauca caliginosa (Walley), n. comb. Sask., Alta., B. C., Wash., Oreg., Calif. Transit. and Canad. Zones.
Campoplegidea caliginosa Walley, 1940. Sci. Agr. 20: 693. ♀.

glauca glauca (Norton), n. comb. Atlantic to 100° W. in Transit. and U. Austr Zones.
Campoplex glaucus Norton, 1863. Ent. Soc. Phila. Proc. 1: 366. ♀.
Campoplex dissitus Norton, 1863. Ent. Soc. Phila. Proc. 1: 367. ♀.
Campoplegidea rossi Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 268. ♂.

glauca n. subsp. Ariz., in Transit. Zone.

gracilis (Walley), n. comb. Atlantic to 100° W. in Transit. and U. Austr. Zones.
Campoplegidea gracilis Walley, 1940. Sci. Agr. 20: 701. ♀.

grahami (Walley), n. comb. B. C., Colo., N. H. (top of Mt. Washington).
Campoplegidea grahami Walley, 1940. Sci. Agr. 20: 698. ♀.

insolita (Walley), n. comb. Que., Ont., Man.
Campoplegidea insolita Walley, 1940. Sci. Agr. 20: 681. ♀.

interstitialis (Walley), n. comb. Que.
Campoplegidea interstitialis Walley, 1940. Sci. Agr. 20: 664, 703. ♀.

johnsoni (Walley), n. comb. Mass., N. Y., N. J. U. Austr. Zone.
Campoplegidea johnsoni Walley, 1940. Sci. Agr. 20: 729. ♀.

laminata (Walley), n. comb. Atlantic to 100° W. in Transit., U. Austr., and L. Austr. Zones.
Campoplegidea laminata Walley, 1940. Sci. Agr. 20: 680. ♂ ♀.

lapponica kukakensis (Ashmead), n. comb. Transcont. in Canad. and Huds. Zones. *D. lapponica lapponica* Holmgren is European. Host: *Eulype hastata gothicata* (Guen.).
Zachresta kukakensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 235. ♂.
Campoplegidea caudata Walley, 1940. Sci. Agr. 20: 668, 686. ♂ ♀.

laticincta (Cresson), n. comb. Transcont. in Canad. and Transit. Zones. Host: *Heliothis* sp.
Campoplex laticinctus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 283. ♀.
Campoplex nigripes Provancher, 1874. Nat. Canad. 6: 145. ♀.
Campoplegidea brooksi Viereck, 1925. Roy. Soc. Canad Trans. 19 (sect. 5): 264. ♂ ♀.

lobata (Walley), n. comb. Que. to S. C., west to Man. and perhaps B. C. Transit., U. Austr., and L. Austr. Zones. Host: *Semiothisa granitata* (Guen.).
Campoplegidea lobata Walley, 1940. Sci. Agr. 20: 668, 713. ♂ ♀.

luctuosa (Provancher), n. comb. Que., B. C., Idaho, Calif., Ariz. Transit. Zone. Host: *Hydriomena divisaria* (Wlkr.).
Campoplex luctuosus Provancher, 1875. Nat. Canad. 7: 145. ♀.
Anisitsia nigerrima Viereck, 1912. U. S. Natl. Mus. Proc. 43: 583. ♀.

magnifica (Walley). n. comb. N. Y., Ala.
Campoplegidea magnifica Walley, 1940. Sci. Agr. 20: 727. ♂ ♀.

major (Cresson), n. comb. Que., Mass., R. I., Pa., B. C., N. Mex.
Campoplex major Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 369. ♀.
Campoplegidea (Viereckiana) totalis Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 174. ♀.

minor (Provancher), n. comb. Transcont. in Transit., Canad., and Huds. Zones.
Campoplex minor Provancher, 1879. Nat. Canad. 11: 150. ♀.
Pseudocasinaria decorata Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 183. ♂.
Amorphota pacifica Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 184. ♂.
Campoplegidea mitis Walley, 1940. Sci. Agr. 20: 689. ♀.
Campoplegidea maritima Walley, 1940. Sci. Agr. 20: 689. ♀.

montrealensis (Viereck), n. comb. Atlantic to 100° W., mostly in Transit. Zone.
Campoplegidea (Viereckiana) montrealensis Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 181. ♂.

nigritibialis (Viereck), n. comb. B. C., Wash., Calif.
Campoplegidea (Viereckiana) nigritibialis Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 178. ♀.

obesa (Davis), n. comb. Mass., N. Y., Pa., Mich.
Zachrasta (!) ***obesa*** Davis, 1898. Amer. Ent. Soc. Trans 24: 361. ♀.

occidentalis (Davis), n. comb. B. C., Wash.
Campoplex occidentalis Davis, 1898. Amer. Ent. Soc. Trans. 14: 361. ♂ ♀.

ocellata (Walley), n. comb. Tex., Md.
Campoplegidea ocellata Walley, 1940. Sci. Agr. 20: 718. ♀.

pallescens (Walley), n. comb. Tenn., S. C., Ga. U. Austr. and L. Austr. Zones.
Campoplegidea pallescens Walley, 1940. Sci. Agr. 20: 722. ♀.

pectoralis (Walley), n. comb. Que., Ont., Sask., Alta.
Campoplegidea pectoralis Walley, 1940. Sci. Agr. 20: 668, 686. ♀.

pilosa (Walley), n. comb. B. C., Oreg., Calif., Colo., Ariz.
Campoplegidea pilosa Walley, 1940. Sci. Agr. 20: 733. ♂ ♀.

planata (Viereck), n. comb. Que., Ont., N. Y., Md.
Campoplegidea planata Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 267. ♀.

pulchella (Walley), n. comb. Calif., Ariz., Utah.
Campoplegidea pulchella Walley, 1940. Sci. Agr. 20: 717. ♂ ♀.

quebecensis (Walley), n. comb. Que., Mass.
Campoplegidea quebecensis Walley, 1940. Sci. Agr. 20: 666, 731. ♀.

relecta (Davis), n. comb. N. H., N. Y., B. C.
Campoplex relectum Davis, 1898. Amer. Ent. Soc. Trans. 24: 361. ♀.
Campoplegidea egregiata Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 266. ♀.

robusta (Walley), n. comb. Atlantic to Cont. Divide in Transit. and U. Austr. Zones.
Campoplegidea robusta Walley, 1940. Sci. Agr. 20: 725. ♂ ♀.

rotunda (Walley), n. comb. N. S., Que., Wash.
Campoplegidea rotunda Walley, 1940. Sci. Agr. 20: 697. ♀.

rufescens (Walley), n. comb. Atlantic to 100° W. in U. Austr. Zone.
Campoplegidea rufescens Walley, 1940. Sci. Agr. 20: 668, 720. ♂ ♀.

rufigaster (Walley), n. comb. N. H., Md., Pa., Mich.
Campoplegidea rufigaster Walley, 1940. Sci. Agr. 20: 705. ♀.

scalaria (Provancher), n. comb. Que., Alta., Wash.
Campoplex scalarius Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 84. ♀ (♂ misdet.).

seamansi (Viereck), n. comb. Man., Alta. Host: *Archips conflictana* (Wlkr.).
Campoplegidea edmontensis Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 266. ♂.
Campoplegidea seamansi Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 268. ♀.
Amorphota bicoloripes Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 184. ♀.

semirufa (Provancher), n. comb. Que., Vt., N. Y., Colo., B. C. Host: *Pheosia rimosa* Pack.
Campoplex semirufus Provancher, 1882. Nat. Canad. 13: 364. ♀.
Campoplegidea okanaganensis Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 270. ♀.

signata (Viereck), n. comb. N. B., Que., Ont., N. C., Man., Sask., ?B. C.
Campoplegidea signata Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 262. ♂ ♀.

simulans arizonensis (Walley), n. comb., n. status. Ariz., in Sonor. desert.
Campoplegidea arizonensis Walley, 1940. Sci. Agr. 20: 664, 709. ♂ ♀.

simulans simulans (Walley), n. comb. N. J. to S. C., in U. Austr. and L. Austr. Zones.
Campoplegidea simulans Walley, 1940. Sci. Agr. 20: 704. ♂ ♀.

stricklandi (Viereck), n. comb. Alta. (Waterton).
Campoplegidea stricklandi Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 269. ♂.

subtilis (Viereck), n. comb. Alta. (Banff).
Campoplegidea (Viereckiana) subtilis Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 176. ♀.

tepaneca (Cresson), n. comb. Ariz. in Transit. Zone; Mexico.
Campoplex tepanecus Cresson, 1874. Acad. Nat. Sci. Phila. Proc. 25: 382. ♂ ♀.

texana (Ashmead), n. comb. Atlantic to 100° W. in U. Austr. Zone; also Wash. and Guatemala.
Casinaria texana Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 427. ♀.

townsendi (Walley), n. comb. N. Mex. (White Mts.).
Campoplegidea townsendi Walley, 1940. Sci. Agr. 20: 703. ♂ ♀.

tumida (Walley), n. comb. Oreg., Ariz. in chaparral.
Campoplegidea tumida Walley, 1940. Sci. Agr. 20: 664, 666, 716. ♀.

turmalis (Walley), n. comb. Tex. (Devil's River).
Campoplegidea turmalis Walley, 1940. Sci. Agr. 20: 711. ♀.

vara (Walley), n. comb. Atlantic to Sask., in Transit. Zone.
Campoplegidea vara Walley, 1940. Sci. Agr. 20: 663, 664, 668. ♂ ♀.

variabilis (Franklin), n. comb. N. S., Maine, Mass., Que. Hosts: *Ematurga amitaria* (Guen.); *Synchlora rubrifrontaria* Pack.
Campoplex variabilis Franklin, 1915. Ent. News 26: 356. ♀.
Biology: Franklin, 1915. Ent. News 26: 356.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 148.

varicoxa (Viereck), n. comb. Transcont. in Transit. Zone.
Campoplegidea (Viereckiana) varicoxa Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 180. ♂.
Campoplegidea (Viereckiana) reticulata Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 181. ♂.
Pseudocasinaria paenealia Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 182. ♂.

vibecifera (Viereck), n. comb. ?Ont. (Ottawa).
Campoplegidea vibecifera Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 270. ♂.

vicina (Provancher), n. comb. Que., Ont., Man. Hosts: *Semiothisa granitata* (Guen.); *S. sexmaculata* (Pack.).
Campoplex vicinus Provancher, 1874. Nat. Canad. 6: 145. ♂ ♀.

villosa (Norton), n. comb. Transcont. in Transit. and U. Austr. Zones.
Campoplex villosus Norton, 1863. Ent. Soc. Phila. Proc. 1: 365. ♂ ♀.

vitticollis vitticollis (Norton), n. comb. Transcont. in Transit. and U. Austr. Zones. Hosts: *Phigalea titea* (Cram.); *Malacosoma disstria* (Hbn.).
Campoplex vitticollis Norton, 1863. Ent. Soc. Phila. Proc. 1: 365. ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 149.

vitticollis n. subsp. Ariz. (Sierra Ancha).

woodi (Viereck), n. comb. Que. to Va., west to Ohio.
Campoplegidea (Viereckiana) woodi Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 177. ♂.
Campoplegidea (Viereckiana) erythrosoma Viereck, 1926. Roy. Soc. Canada Trans. 20 (sect. 5): 177. ♀.

wyomingensis (Viereck), n. comb. Que., Mass., R. I., N. Y., Ohio, Wyo.
Campoplex wyomingensis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 242. ♂.
Campoplegidea walleyi Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 271. ♀.

Genus NEPIERA Foerster

Nepiera Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 156.
Type: ***Limneria concinna*** Holmgren. Included by Thomson, 1887.

basilaris (Provancher). Que., Ont., N. H., R. I., N. Y.
Limneria basilaris Provancher, 1875. Nat. Canad. 7: 147, 149. ♂.

benevola Gahan. Utah. Host: *Colias philodice eurytheme* Bdvl.
Nepiera benevola Gahan, 1914. U. S. Natl. Mus. Proc. 48: 157. ♂ ♀.

curticauda (Viereck). B. C., Wash., Oreg., Calif. Transit. Zone.
Campoplex (Diadegma) curticauda Viereck, 1925; 1926. Canad. Ent. 57: 227; 58: 280. ♀.

fuscifemora Graf. South. Calif. Host: *Gnorimoschema operculella* (Zell.).
Nepiera benevola var. ***fuscifemora*** Graf, 1917. U. S. Dept. Agr. Bul. 427: 46. ♀.
Biology: Graf, 1917. U. S. Dept. Agr. Bul. 427: 46.
Taxonomy: Gahan, 1917. U. S. Natl. Mus. Proc. 53: 208. ♂ ♀.

marginata (Provancher). Ont., Que.
Campoplex marginatus Provancher, 1874. Nat. Canad. 6: 146. ♂ ♀.
Limneria brevicauda Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 88. ♀.
Campoplex (Ameloctonus) intimus Viereck, 1925; 1926. Canad. Ent. 57: 224; 58: 260. ♀.

oblonga (Viereck). Ont. (Orillia).
Campoplex (Ameloctonus) oblongus Viereck, 1925; 1926. Canad. Ent. 57: 224; 58: 260. ♀.

unica (Viereck). Ont. (Ottawa).
Angitia (Dioctes) unicus Viereck, 1926. Canad. Ent. 58: 182. ♂.

Genus PHOBOCAMPE Foerster

Hypothereutes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 156.
Type: ***Hypothereutes geometrae*** Ashmead. Included by Ashmead, 1897.
Phobocampe Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 156.
Type: ***Campoplex crassiusculus*** Gravenhorst. Desig. by Viereck, 1914.
Phobocampa Thomson, 1887. Opusc. Ent. fasc. 11, p. 1120.
Type: ***Campoplex crassiusculus*** Gravenhorst. Desig. by Viereck 1914.

certa (Viereck). Que., N. Y., R. I., N. J., B. C.
Campoplex* (*Ameloctonus*) *certus Viereck, 1925; 1926. Canad. Ent. 57: 223; 58: 257. ♀.
Campoplex* (*Ameloctonus*) *congeneris Viereck, 1925; 1926. Canad. Ent. 57: 223; 58: 259. ♀.

clisiocampae (Weed). Atlantic to 100° W. in Transit. Zone.
Hosts: *Alsophila pometaria* (Harr.); *Malacosoma americanum* (F.); *M. disstria* Hbn.; *Hemerocampa leucostigma* (A. and S.); *Nygmia phaeorrhea* (Don.); *Datana perspicua* (G. and R.); *Schizura concinna* (A. and S.); Parasites: *Itoplectis conquisitor* (Say); *Dibrachys cavus* (Wlkr.); *Pteromalus puparium* (L.).
Ameloctonus clisiocampae Weed, 1903. N. H. Agr. Expt. Sta. Tech. Bul. 6: 230. ♂ ♀.
Biology: Fiske, 1903. N. H. Agr. Expt. Sta. Tech. Bul. 6: 198, 206–208, 223, 226.—Howard and Fiske, 1911. U. S. Dept. Agr. Bur. Ent. Bul. 91: 143, 192.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 150.

disparis (Viereck). Mass., N. H. Introduced from Europe. Host: *Porthetria dispar* (L.).
Hyposoter disparis Viereck, 1911. U. S. Natl. Mus. Proc. 40: 478. ♂ ♀.
Biology: Howard and Fiske, 1911. U. S. Dept. Agr. Bur. Ent. Bul. 91: 191.—Burgess and Crossman, 1929. U. S. Dept. Agr. Tech. Bul. 86: 49–54.—Muesebeck and Parker, 1933. Jour. Agr. Res. 46: 335–347.

elyi (Viereck). Transcont. in Transit. Zone.
Hypothereutes elyi Viereck, 1912. U. S. Natl. Mus. Proc. 43: 590. ♀.
Campoplex* (*Hypothereutes*) *vernalis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 264. ♀. N. syn.
Campoplex* (*Hyposoter*) *stenus Viereck, 1925; 1926. Canad. Ent. 57: 204; 58: 220. ♂.
Campoplex* (*Ameloctonus*) *speciosus Viereck, 1925; 1926. Canad. Ent. 57: 223; 58: 257. ♀.

flavipes (Provancher). Atlantic to 100° W. in Transit. Zone.
Limneria flavipes Provancher, 1874. Nat. Canad. 6: 148. ♂.
Campoplex* (*Hypothereutes*) *acceptus Viereck, 1925; 1926. Canad. Ent. 57: 204; 58: 224. ♀.

geometrae (Ashmead). Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: Geometrid on *Betula alba*. Parasite: *Bathythrix triangularis* (Cress.).
Hypothereutes geometrae Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 167. ♂.
Campoplex* (*Hypothereutes*) *concisus Viereck, 1925; 1926. Canad. Ent. 57: 204; 58: 224. ♂ ♀.
Campoplex* (*Ischnoscopus*) *largo Viereck, 1925; 1926. Canad. Ent. 57: 223; 58: 198. ♀.
Campoplex* (*Ischnoscopus*) *angustus Viereck, 1925; 1926. Canad. Ent. 57: 223; 58: 198. ♀.

pallida (Cushman). Conn., Pa., N. J., Md.
Callidora pallida Cushman, 1922. U. S. Natl. Mus. Proc. 60 (21): 20. ♀.

pallipes (Provancher). Transcont. in Transit. Zone. Hosts: *Hemerocampa pseudotsugata* McD.; *Notolophus antiquus* (L.).
Limneria pallipes Provancher, 1875. Nat. Canad. 7: 147, 149. ♀.
Limnerium pallidipes Dalla Torre, 1901. Cat. Hym., v. 3, p. 101. Emend.
Campoplex* (*Campoplex*) *arcanus Viereck, 1925; 1926. Canad. Ent. 57: 226; 58: 146. ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 150.

Genus HOROGENES Foerster

Angitia Holmgren, 1859. Öfvers. Svenska Vetensk. Akad. Förh. 15: 327. Preocc.
Type: ***Angitia glabricula*** Holmgren. Monob.
Horogenes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 152.
Type: ***Limnerium* (*Horogenes*) *discoocellellae*** Viereck. Included by Viereck, 1910.
Dioctes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 153. Preocc.
Type: ***Campoplex exareolatus*** Ratzeburg. Desig. by Viereck, 1914.

Diadegma Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 153.
Type: ***Campoplex crassicornis*** Gravenhorst. Included by Schmiedeknecht, 1907.
Dyspetes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 201.
Type: ***Ichneumon praerogator*** Linnaeus. Included by Tosquinet, 1890.
Enytus Cameron, 1905. Invertebrata Pacifica 1: 132.
Type: (***Enytus maculipes*** Cameron) = [***Limneria***] ***eureka*** Ashmead. Monob.
Nothanomaloides Viereck, 1925. Roy. Soc. Canada Trans. 19 (sect. 5): 272.
Type: ***Nothanomaloides stenosomus*** Viereck. Orig. desig.
Inareolata Ellinger and Sachtleben, 1928. Internatl. Corn Borer Invest. Sci. Rpt. 1927-28, p. 117. N. name for *Dioctes*.
Key to species: Viereck, 1925. Canad. Ent. 57: 227–228.

acronyctae (Ashmead). Near D. C.? Host: *Acronicta oblinita* (A. and S.).
Limneria acronyctae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 194. ♂.

acutus (Viereck). B. C., Wash., Oreg., Calif. Hosts: *Platyptilia carduidactyla* (Riley); *Phlyctaenia rubigalis* (Guen.); *Pyrausta subsequalis* (Guen.).
Campoplex (Hyposoter) acutus Viereck, 1925; 1926. Canad. Ent. 57: 203; 58: 200. ♀.
Campoplex (Hyposoter) vancouverensis Viereck, 1925; 1926. Canad. Ent. 57: 203; 58: 199. ♀.
Angitia platyptiliae Cushman, 1939. Pan-Pacific Ent. 15: 183. ♂ ♀.
Biology: Lange, 1941. Calif. Agr. Expt. Sta. Bul. 653: 22, 67.

aestivalis (Viereck). R. I., N. Y., N. J., D. C., Va.
Angitia aestivalis Viereck, 1921. Psyche 28: 71. ♀.

albertae (Walley). Alta. (Slave Lake).
Angitia albertae Walley, 1929. Canad. Ent. 61: 191, 193. ♀.

albipes (Provancher). Que., Conn., R. I., N. Y.
Porizon albipes Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 364. ♀.
Campoplex (Nemeritis) ocellatus Viereck, 1925; 1926. Canad. Ent. 57: 178; 58: 179. ♂.

alticola (Cushman). N. H. (Mt. Washington).
Dioctes alticola Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 11. ♀.

annulipes (Ashmead). Alaska.
Hypothereutes annulipes Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 236. ♀.
Campoplex (Ameloctonus) taeniopus Viereck, 1925. Canad. Ent. 57: 224. N. name.

antennaellae (Walley). Ont., N. Y. Host: *Coleophora occidentis* Zell.
Campoplex (Angitia) antennaellae Walley, 1932. Canad. Ent. 64: 182. ♀ (♂ misdet.).

buckelli (Viereck). B. C. (Nicola).
Campoctonoides buckelli Viereck, 1925. Canad. Ent. 57: 177, 296. ♀.

cacoeciae (Viereck). B. C. (Vernon). Host: *Archips rosana* (L.).
Campoplex (Angitia) cacoeciae Viereck, 1924. Canad. Ent. 56: 67. ♀.

combinatus (Holmgren). Greenland; northern Europe.
Limneria combinata Holmgren, 1860. Svenska Vetensk. Akad. Handl. 2 (pt. 2): 62. ♂ ♀.
Taxonomy: Roman, 1933. Skrifter om Svalbard og Ishavet 53: 11. ♀.

compressus (Cresson). Atlantic to 100° W. in Transit., U. Austr., and L. Austr. Zones.
Mesoleptus compressus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 260. ♂.
Limneria ferrugineipes Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 432. ♂.
Idecthis (!) ***paenerivalis*** Viereck, 1906. Amer. Ent. Soc. Trans. 32: 216. ♂ ♀.
Campoplex (Angitia) oedemisiformis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 265. ♂.
Campoplex (Angitia) ruficoxa Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 265. ♂. Misdet.

Campoplex* (*Campoplex*) *ruficoxalis Viereck, 1925; 1926. Canad. Ent. 57: 226; 58: 144, 176. ♂. N. name for *C. ruficoxa* Viereck, 1917, not Provancher.

comptoniellae (Viereck). Que., N. H., Mass., R. I., N. Y. Hosts: *Aroga trialbamaculata* (Chamb.); *Peronea fragariana* Kearf.; *Acrobasis caryivorella* Rag.; *A. comptoniella* Hulst; *A. rubrifasciella* Pack.

Campoplex* (*Hyposoter*) *comptoniellae Viereck, 1925; 1926. Canad. Ent. 57: 204; 58: 219. ♂ ♀.

Campoplex digitatus Cushman, 1926. U. S. Natl. Mus. Proc. 67 (23): 11. ♂ ♀.

conodor (Viereck). Ont.

Campoplex* (*Nemeritis*) *conodor Viereck, 1925; 1926. Canad. Ent. 57: 178; 58: 179 (as *C. concolor* (!)). ♀.

discoocellellae (Viereck). D. C., Mich. Hosts: *Chionodes violaceofusca* (Zell.); *Filatima persicaeella* (Murtf.).

Limnerium* (*Horogenes*) *discoocellellae Viereck, 1911. U. S. Natl. Mus. Proc. 39: 404. ♀.

eureka (Ashmead). B. C. to south. Calif. Hosts: *Archips rosaceana* (Harr.); *Argyrotaenia citrana* (Fern.); *Cnephasia longana* (Haw.).

Limneria eureka Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 436. ♂.

Enytus maculipes Cameron, 1903. Invertebrata Pacifica 1: 132. ♀.

Campoplex* (*Dioctes*) *rosaceanae Viereck, 1925; 1926. Canad. Ent. 57: 227; 58: 181. ♀.

exareolatus (Ratzeburg). Greenland; Europe.

Campoplex exareolata Ratzeburg, 1852. Ichn. d. Forstins., v. 3, p. 89. ♂ ♀.

fenestralis (Holmgren). Ont.; Europe.

Limneria fenestralis Holmgren, 1858. Svenska Vetensk. Akad. Handl. 2 (pt. 2): 59. ♂ ♀.

Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 239, 240, 244.

galleriae (Cushman). Mich. (Lansing). Host: *Galleria mellonella* (L.).

Angitia galleriae Cushman, 1920. U. S. Natl. Mus. Proc. 58: 266. ♂ ♀.

groenlandicus (Roman). Greenland.

Anilasta groenlandica Roman, 1916. Arkiv. för Zool. 10 (22): 11. ♀.

Taxonomy: Roman, 1934. Ann. Mag. Nat. Hist. (10) 14: 610.

insularis (Cresson). Atlantic to Cont. Divide in U. Austr., L. Austr., and Tropical Zones; also south. Calif., Mexico, and Hawaii.

Mesoleptus insularis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 15. ♂.

Campoplex* (*Angitia*) *hellulae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 631. ♀.

Biology: Walker and Anderson, 1936. Va. Truck Expt. Sta. Bul. 93: 1382.

johanseni (Viereck). Que., R. I., S. Dak.

Campoctonoides johanseni Viereck, 1925. Canad. Ent. 57: 177, 297. ♂ ♀.

kiehtani (Viereck). Transcont. in Transit. Zone.

Campoplex* (*Angitia*) *kiehtani (Viereck), 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 265. ♀.

Campoplex* (*Angitia*) *woonandi Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 265. ♂.

Campoplex* (*Hyposoter*) *petiolatus Viereck, 1925; 1926. Canad. Ent. 57: 204; 58: 221. ♀.

Campoplex* (*Hyposoter*) *curtus Viereck, 1925; 1926. Canad. Ent. 57: 204; 58: 221. ♀.

Campoplex* (*Hyposoter*) *triangularis Viereck, 1925; 1926. Canad. Ent. 57: 204; 58: 222. ♀.

Campoplex* (*Diadegma*) *costata Viereck, 1925; 1926. Canad. Ent. 57: 227; 58: 279. ♀.

Campoplex* (*Eulimneria*) *bakeri Viereck, 1925. Canad. Ent. 57: 278. ♀.

Angitia incipiens Walley, 1929. Canad. Ent. 61: 192, 193. ♀.

laticeps (Viereck). B. C. (Victoria).

Campoplex* (*Hyposoter*) *laticeps Viereck, 1925; 1926. Canad. Ent. 57: 204; 58: 220. ♀.

lyonetiae (Viereck). B. C. (Nelson).
Campoplex* (*Nemeritis*) *lyonetiae Viereck, 1925: 1926. Canad. Ent. 57: 178; 58: 178. ♂.

minutus (Viereck). N. Y., N. C., Colo., B. C.
Campoplex* (*Hyposoter*) *minutus Viereck, 1925; 1926. Canad. Ent. 57: 204; 58: 221. ♀.

molestae (Uchida). Conn., Va. Introduced from Japan. Host: *Grapholitha molesta* (Busck).
Dioctes molestae Uchida, 1933. Wash. Acad. Sci. Jour. 23: 148. ♀.
Biology: Garman, 1938. Conn. Agr. Expt. Sta. Bul. 408: 223, 224.

montanus (Ashmead). Alaska, Alta., Colo., Maine.
Ischnocerus montanus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 418. ♀.

obliteratus (Cresson). Atlantic to 100° W. in Transit. and U. Austr. Zones: Hosts: *Coleophora fletcherella* Fern.; *Argyresthia oreasella* Clem.; *Xyrosaris celastrusella* (Kearf.); *Anthophila pariana* (Clem.); *Dichomeris ligulella* (Hbn.); *Argyrotaenia velutinana* (Wlkr.); *Acleris minuta* (Rob.); *Peronea variana* (Fern.); *Grapholitha molesta* (Busck); *Polychrosis viteana* (Clem.); *Proteoteras aesculana* Riley; *Desmia funeralis* (Hbn.).
Mesoleptus obliteratus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 260. ♀.
Limneria elegans Weed, 1887. Ill. State Lab. Nat. Hist. Bul. 3: 40. ♀.
Limneria salicicola Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 437. ♀.
Thymaris slingerlandana Ashmead, 1904. Canad. Ent. 36: 333. ♀.
Biology: Slingerland, 1904. Cornell Univ. Agr. Expt. Sta. Bul. 223: 53.—Porter and Garman, 1923. Conn. Agr. Expt. Sta. Bul. 246: 260.—Cushman, 1926. Ent. Soc. Wash. Proc. 28: pl. 3, fig. 10d.—Steenburgh, 1929. Ent. Soc. Ontario Ann. Rpt. 60: 126.—Garlick, 1935. Ent. Soc. Ontario Ann. Rpt. 65: 111.—Steenburgh and Boyce, 1938. Ent. Soc. Ontario Ann. Rpt. 69: 72.

obliteratellus (Viereck). B. C. (Agassiz).
Campoplex* (*Hyposoter*) *obliteratella Viereck, 1925; 1926. Canad. Ent. 57: 204; 58: 222. ♀.

obscurus (Cresson). Transcont. in Transit. Zone.
Mesoleptus obscurus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 261. ♀.
Campoplex* (*Hyposoter*) *convergens Viereck, 1925; 1926. Canad. Ent. 57: 303; 58: 200. ♀.
Campoplex* (*Ischnoscopus*) *vinalis Viereck, 1925; 1926. Canad. Ent. 57: 223; 58: 197. ♀.

oculus (Viereck). Ont. Host: Canker worm (Geometridae).
Campoplex* (*Nemeritis*) *oculus Viereck, 1925; 1926. Canad. Ent. 57: 178; 58: 179. ♂.

openangorum (Viereck). Conn., N. Y., N. J., Alta., B. C.
Campoplex* (*Angitia*) *openangorum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 265. ♂.

paenesessilis (Viereck). Ont. (Ottawa).
Campoplex* (*Hyposoter*) *paenesessilis Viereck, 1925; 1926. Canad. Ent. 57: 204; 58: 222. ♀.

parviformis (Viereck). Transcont. in Transit. Zone.
Campoplex* (*Angitia*) *parviformis Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 265. ♀.

parvus (Provancher). Que.
Limneria parva Provancher, 1874. Nat. Canad. 6: 147. ♀.

patens Townes. Greenland.
Angitia* (*Inareolata*) *laticeps Roman, 1938. Ann. Mag. Nat. Hist. (11) 1: 541. ♂ ♀. Preocc.
Horogenes patens Townes, 1945. Amer. Ent. Soc. Mem. 11: 659. N. name.

pattoni (Ashmead). Atlantic to 100° W. in U. Austr. and L. Austr. Zones. Poorly kept lawns. Hosts: *Crambus teterrellus* (Zinck.); *Loxostege similalis* (Guen.).
Limneria Pattoni Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 434. ♂.
Limneria eurycreontis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 434. ♀.

Limneria mississippiensis Ashmead, 1894. U. S. Dept. Agr. Insect Life 7: 243. ♀.
Amorphota paenexareolata Viereck, 1905. Kans. Acad. Sci. Trans. 19: 309. ♂.
Amorphota confluens Viereck, 1906. Amer. Ent. Soc. Trans. 32: 217. ♀.
Cymodusa simplicicornis Viereck, 1916. Biol. Soc. Wash. Proc. 29: 168. ♀.

plutellae (Viereck). Pacific to 100° W. in Transit. Zone. Hosts: *Plutella amoraciae* Busck; *P. maculipennis* (Curt.); *P. omissa* Wlsm.; *Hellula undalis* (F.).
Angitia plutellae Viereck, 1912. U. S. Natl. Mus. Proc. 43: 583. ♀.
Campoplex (Hyposoter) pygmaeus Viereck, 1925; 1926. Canad. Ent. 57: 204: 58: 220. ♀.
Sagaritis congregator Walley, 1926. Canad. Ent. 58: 225, 240. ♂ ♀.

pterophorae (Ashmead). Wash., Oreg., Calif. Hosts: *Argyotaenia citrana* (Fern.); *Spilonota ocellana* (D. and S.); "*Pterophorus*" on *Malus pumila*.
Limneria pterophorae Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 435. ♀.

punctorius (Roman). Ont. and Mass., to Del., west to Mich. Introduced from Europe. Host: *Pyrausta nubilalis* (Hbn.).
Angitia (Dioctes) punctoria Roman, 1923. Ent. Tidskr. 44: 171. ♂ ♀.
Biology: Jones, 1928. Ent. Soc. Ontario Ann. Rpt. 58: 55.—Wishart and Thomas, 1933. Ent. Soc. Ontario Ann. Rpt. 63: 40, 41.—Clark, 1934. U. S. Dept. Agr. Tech. Bul. 455: 9, 11, 20–21, 28, 31.—Ellinger and Sachtleben, 1929. Arb. Biol. Reichsanst. Land. u. Forstw. 17: 327.—Clark and Carter, 1933. Jour. Econ. Ent. 36: 120.—Wishart, 1943. Ent. Soc. Ontario Ann. Rpt. 73: 26–30.

rivalis (Cresson). Tex. (Bosque Co.).
Limneria rivalis Cresson, 1872. Amer. Ent. Soc. Trans. 41: 73. ♀ (♂ misdet.).
Taxonomy: Cushman, 1925. Ent. Soc. Wash. Proc. 27: 166.

rosanae (Viereck). N. S., N. Y., Ont., Sask. Host: *Archips rosana* (L.).
Campoplex (Angitia) rosanae Viereck, 1924. Canad. Ent. 56: 68. ♀.
Campoplex (Ischnoscopus) alterus Viereck, 1925; 1926. Canad. Ent. 57: 223; 58: 196. ♀.

solenobiae (Ashmead). Transcont. in Transit. Zone. Host: *Solenobia walshella* Clem.
Limneria solenobiae Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 433. ♂.

solus (Viereck). B. C., Wash.
Campoplex (Nemeritis) solus Viereck, 1925; 1926. Canad. Ent. 57: 179; 58: 180. ♀.

stenosomus (Viereck). Ont., N. Y.
Nothanomaloides stenosomus Viereck, 1925. Roy. Soc. Canada Trans. 19: 272. ♀.

trachas (Viereck). Alta. (Cochrane).
Campoplex (Nemeritis) trachas Viereck, 1925; 1926. Canad. Ent. 57: 179; 58: 181. ♂.

truncatus (Viereck). N. W. T. (Bernard Harbor).
Campoplex (Hyposoter) truncatus Viereck, 1925; 1926. Canad. Ent. 57: 203. 58: 200. ♀.

Genus HYPOSOTER Foerster

Hyposoter Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 152.
Type: ***Limnerium (Hyposoter) parorgyiae*** Viereck. Included by Viereck, 1910.
Ischnoscopus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 156.
Type: ***Ischnoscopus synchlorae*** Ashmead. Included by Ashmead, 1897.
?Anilastus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 157.
Type: ***Campoplex rapax*** Gravenhorst. Desig. by Viereck, 1910.
Ameloctonus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 157.
Type: ***Banchus fugitivus*** Say. Desig. by Viereck, 1914.
?Anilasta Thomson, 1887. Opusc. Ent., fasc. 11, pp. 1053, 1168.
Type: ***Campoplex rapax*** Gravenhorst. Desig. by Viereck, 1914.
Key to species: Viereck, 1925. Canad. Ent. 57: 203–204, 223–224.

affinis (Cresson). Mass., N. Y., Ill.
Mesoleptus affinis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 263. "♂"=♀.

annulipes (Cresson). Transcont. in Canad. Transit. and U. Austr. Zones. Hosts: *Catocala antinympha* (Hbn.); *Ceramica picta* (Harr.); *Heliothis armigera* (Hbn.); *Plusia precationis* (Guen.); *Pyrrhia umbra* (Hufn.).
Mesoleptus annulipes Cresson, 1864. Ent. Soc. Phila. Proc. 3: 257. ♀.
Campoplex (Ischnoscopus) mitralis Viereck, 1925; 1926. Canad. Ent. 57: 223; 58: 197. ♀.
Campoplex (Ischnoscopus) truncatellus Viereck, 1925; 1926. Canad. Ent. 57: 223; 58: 197. ♀.
Campoplex (Ameloctonus) confusus Viereck, 1925; 1926. Canad. Ent. 57: 224; 58: 277. ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 150.

asper (Viereck). Alta. (Waterton Lakes).
Campoplex (Ameloctonus) asper Viereck, 1925; 1926. Canad. Ent. 57: 224; 58: 259. ♀.

basizona (Viereck). B. C. (Vernon).
Campoplex (Angitia) basizona Viereck 1924. Canad. Ent. 56: 67. ♂.

degrysei (Viereck). Sask. (Indian Head).
Campoplex (Ameloctonus) degrysei Viereck, 1925; 1926. Canad. Ent. 57: 224; 58: 259. ♀.

dimidiatus (Ashmead). Miss. (Utica).
Zachreata dimidiata Ashmead, 1894. U. S. Dept. Agr. Insect Life 7: 243. ♀.

disippi (Viereck). Transcont. in Transit. Zone. Host: *Basilarchia archippus* (Cram.).
Campoplex (Ameloctonus) disippi Viereck, 1925; 1926. Canad. Ent. 57: 224; 58: 276. ♀.

erythrinus (Viereck). Sask. (St. Louis).
Campoplex (Hyposoter) erythrinus Viereck, 1925; 1926. Canad. Ent. 57: 203; 58: 199. ♀.

exiguae (Viereck). N. Y., D. C., S. C., Colo., Calif., Sask., Hawaii. Hosts: *Heliothis armigera* (Hbn.); *Laphygma exigua* (Hbn.); *Prodenia praefica* Grote; *Colias philodice eurytheme* Bdvl.
Campoplex (Hypothereutes) exiguae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 638. ♀.
Campoplex (Ameloctonus) eurytheme Viereck, 1925; 1926. Canad. Ent. 57: 223; 58: 258. ♂ ♀.
Biology: Michelbacher and Essig, 1938. Calif. Agr. Expt. Sta. Bul. 625: 21.

frigidus (Lundbeck). Greenland. Hosts: *Anarta* sp.; "*Hadena*" sp.
Limneria frigida Lundbeck, 1897 (1896). Nat. For. København Vidensk. Medd. p. 236. ♂ ♀.

fugitivus fugitivus (Say). Atlantic to Cont. Divide in Transit., U. Austr., and L. Austr. Zones. Hosts: *Malacosoma americanum* (F.); *M. disstria* Hbn.; *Hemerocampa plagiata* Wlkr.; *Datana ministra* (Drury); *Schizura concinna* (A. and S.); *Euchaetias egle* (Drury); *Hyphantria cunea* (Drury); *Anisota rubicunda* (F.); *A. senatoria* (A. and S.); *A. stigma* (F.); *A. virginiensis* (Drury); *Automeris io* (F.); *Hemileuca maia* (Drury). Parasites: *Gelis tenellus* (Say); *Iseropus coelebs* (Walsh); *Itoplectis conquisitor* (Say); *Theronia atalantae* (Poda); *Dibrachys cavus* (Wlkr.); *Elasmus varius* How.; *Habrocytus thyridopterigis* How.; *Perilampus hyalinus* Say; *Pleurotropis tarsalis* (Ashm.); *Petromalus puparium* (L.).
Banchus fugitivus Say, 1836. Boston Jour. Nat. Hist. 1: 247. ♂ ♀.
Limneria Guignardi Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 87. ♂ ♀.
Limneria oedemasiae Ashmead 1890. U. S. Natl. Mus. Proc. 12: 436. ♂ ♀.
Biology: Lintner, 1886. Cultivator and Country Gentleman 51: 695.—Lintner, 1888. N. Y. State Mus. Nat. Hist. Ann. Rpt. 40: 90.—Atkinson, 1889. S. C. Agr. Expt. Sta. Bul. 4: 88.—Fiske, 1903. N. H. Agr. Expt. Sta. Tech. Bul. 6: 200, 202–206.—Patch, 1906. Maine Agr. Expt. Sta. Bul. 134: 224. —Britton 1918. Conn. Agr. Expt. Sta. Bul. 203: 330.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 150.

fugitivus pacificus Cushman. Pacific to Cont. Divide in Transit. and U. Austr. Zones. Hosts: *Malacosoma ambisimile* (Dyar); *M. disstria* Hbn.; *M. pluviale* (Dyar); *Schizura concinna* (A. and S.); *Hyphantria cunea* (Drury). Parasites: *Dibrachys cavus* (Wlkr.); *Perilampus hyalinus* Say.

Hyposoter fugitivus var. ***pacificus*** Cushman, 1919. Ent. Soc. Wash. Proc. 21: 119. ♂ ♀.

fuscitarsus (Viereck). Que., Ont., Wash.

Campoplex (Ameloctonus) fuscitarsus Viereck, 1925; 1926. Canad. Ent. 57: 224; 58: 279. ♀.

galvestonensis (Viereck). Tex. (Galveston).

Amorphota galvestonensis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 219. ♀.

grahami (Viereck). Que. to Md.

Campoplex (Holocremnus) grahami Viereck, 1925; 1926. Canad. Ent. 57: 203; 58: 182. ♀.

luctus (Davis). N. H., N. W. T.

Canidia luctus Davis, 1898. Amer. Ent. Soc. Trans. 24: 364. ♀.

Zachrestoides intermedia Viereck, 1925; 1926. Canad. Ent. 57: 179; 58: 3. ♂.

nigrolineatus (Viereck). Ga., Fla., Miss., N. Mex. Hosts: *Laphygma exigua* (Hbn.); *Prodenia ornithogalli* Guen.; *Protoleucania albilinea* Hbn.

Hypothereutes nigrolineatus Viereck, 1912. U. S. Natl. Mus. Proc. 43: 590. ♀.

Hyposoter interjectus Gahan, 1914. U. S. Natl. Mus. Proc. 48: 156. ♀.

Biology: Wilson, 1933. Fla. Ent. 17: 3.

noctuae (Ashmead). Conn., D. C. Host: Phalaenid pupa on *Betula lenta*.

Limneria noctuae Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 437. ♂.

Hyposoter diversicolor Viereck, 1912. U. S. Natl. Mus. Proc. 43: 590. ♀.

occidentali (Viereck). Alta. (Waterton Lakes). Host: *Oidaematophora occidentalis* Wlshm.

Campoplex (Hyposoter) occidentali Viereck, 1925; 1926. Canad. Ent. 57: 204; 58: 219. ♀.

ochreofrons lexiphaga (Walley), n. comb. Atlantic to 100° W. in Transit. and Canad. Zones. Host: *Lexis* sp.

Echthronomas ochreofrons lexiphaga Walley, 1944. Canad. Ent. 76: 159. ♂ ♀.

ochreofrons ochreofrons (Cushman). Atlantic to 100° W. in U. Austr. Zone.

Echthronomas ochreofrons Cushman, 1924. U. S. Natl. Mus. Proc. 64 (4): 12. ♀.

Taxonomy: Walley, 1944. Canad. Ent. 76: 158. ♂ ♀.

parorgyiae (Viereck). Mass. Host: *Olene atomaria* (Wlkr.).

Limnerium (Hyposoter) parorgyiae Viereck, 1910. U. S. Natl. Mus. Proc. 38: 382. ♂ ♀.

Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 150.

pectinatus (Thomson). Greenland; Europe. Host: *Byrdia groenlandica* (Hom.).

Anilastus pectinata Thomson, 1887. Opusc. Ent., fasc. 11, p. 1171. ♀.

Limneria Deichmanni Nielsen, 1907. Meddel. om Grønland 29: 386. ♂ ♀.

Biology: Nielsen, 1907. Meddel. om Grønland 29: 386.—Johansen, 1910. Meddel. om Grønland 43:44, 46.—Nielsen, 1910. Meddel. om Grønland 43: 56.

Taxonomy: Roman, 1930. Ann. Mag. Nat. Hist. (10) 5: 287.

pilosulus (Provancher). Transcont. in Transit. and U. Austr. Zones. Hosts: *Diacrisia virginica* (F.); *Euchaetias egle* (Drury); *Hyphantria cunea* (Drury). Parasites: *Gelis atratus* (Ashm.); *G. tenellus* (Say); *Catolaccus aeneoviridis* (Gir.); *Dibrachys cavus* (Wlkr.); *Hypopteromalus percursor* Gir.; *Perilampus hyalinus* Say.

Limneria pilosula Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 89. ♂ ♀.

Limneria ephestriae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 195. ♂ ♀.

Amorphota perrivalis Viereck, 1905. Kans. Acad. Sci. Trans. 19: 307. ♂ ♀.

Campoplex (Hypothereutes) clarus Viereck, 1925; 1926. Canad. Ent. 57: 204; 58: 224. ♀.

Campoplex* (*Ameloctonus*) *cuneae Viereck, 1925; 1926. Canad. Ent. 57: 223; 58: 227. ♀.

Biology: Timberlake, 1912. U. S. Dept. Agr., Bur. Ent. Tech. Ser. 19: 72, 90–91.—Dustan, 1921. Ent. Soc. N. S. Proc. 6: 81–88.—Tothill, 1922. Canad. Dept. Agr. Bul. (n. s.) 3: 59–74.—Baerg, 1928. Ark. Agr. Expt. Sta. Bul. 224: 23, 24.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 150.—Swain, 1937. Colo.-Wyo. Acad. Sci. Jour. 3 (2 and 3): 43.—Swain, Green, and Portman, 1938. Kans. Ent. Soc. Jour. 11: 7–9.

planata (Viereck). B. C. (Keremeos).
Campoplex* (*Diadegma*) *planata Viereck, 1925; 1926. Canad. Ent. 57: 229; 58: 281 (as *C.* (*Ecphora*) *planata*). ♀.

plesius (Viereck). Ont. (Sudbury).
Campoplex* (*Hyposoter*) *plesius Viereck, 1925; 1926. Canad. Ent. 57: 203; 58: 201. ♀.

popofensis (Ashmead). Transcont. in Canad. and Transit. Zones.
Ameloctonus popofensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 237. ♀.
Campoplex* (*Diadegma*) *ruficruris Viereck, 1925; 1926. Canad. Ent. 57: 227; 58: 280. ♀.

rubiginosus Cushman. Conn., Mass. Hosts: *Olene atomaria* (Wlkr.); *O. basiflava* (Pack.).
Hyposoter rubiginosus Cushman, 1924. U. S. Natl. Mus. Proc. 64 (4): 11. ♂ ♀.

Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 151.

sarntheinii (Dalla Torre). N. Y., Mo. Host: *Synchlora aerata* (F.).
Limneria rufa Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 193. "♂"=♀. Preocc.
Limnerium sarntheinii Dalla Torre, 1901. Cat. Hym., v. 3, p. 104. N. name.

synchlorae (Ashmead). N. H., Mass., N. Y., Md., Host: *Synchlora* sp.
Ischnoscopus synchlorae Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 168. ♂.

triops (Walley). Ont. (St. Thomas).
Angitia triops Walley, 1929. Canad. Ent. 61: 191. ♂.

xanthocerus (Viereck). N. Y. to Va., west to Mich.
Ameloctonus xanthocerus Viereck, 1921. Psyche 28: 70. ♀.

Genus CAMPOCTONUS Viereck

Campoctonus Viereck, 1912. U. S. Natl. Mus. Proc. 42: 633.
Type: ***Limneria corrupta*** Cresson. Orig. desig.
Campoctonoides Viereck, 1925. Canad. Ent. 57: 177.
Type: ***Campoctonoides currani*** Viereck. Orig. desig.

Key to species: Viereck, 1925. Canad. Ent. 57: 177.

belfragei (Ashmead). R. I., N. Y., Md., Va., Tex.
Limneria Belfragei Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 435. ♂.

carinatus (Provancher). Atlantic to Cont. Divide in Transit. and Canad. Zones.
Campoplex carinatus Provancher, 1879. Nat. Canad. 11: 150. ♀.
Campoctonoides beaulnei Viereck, 1925. Canad. Ent. 57: 177, 296. ♂ ♀.
Campoctonoides harringtoni Viereck, 1925. Canad. Ent. 57: 177, 297. ♀.

corruptus (Cresson). Conn., N. Y., S. Dak., Colo., Tex.
Limneria corrupta Cresson, 1872. Amer. Ent. Soc. Trans. 4: 172. ♀.

currani (Viereck). Maine, N. H., N. Y., Pa., Que., Ont.
Campoctonoides currani Viereck, 1925. Canad. Ent. 57: 177, 296. ♂ ♀.

orbitalis Walley. Mich., Sask., Alta.
Campoctonus orbitalis Walley, 1944. Canad. Ent. 76: 160. ♀.

Genus OLESICAMPE Foerster

Limneria Holmgren, 1859. Öfvers. Svenska Vetensk. Akad. Förh. 15: 326. Preocc.
Type: ***Ichneumon longipes*** Mueller. Desig. by Viereck, 1912.
Olesicampe Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 153.

Type: *Ichneumon fulviventris* Gmelin. Desig. by Morley, 1913.
Omoborus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 154.
Type: *Omoborus kincaidi* Davis. Included by Davis, 1898.
?Holocremnus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 157.
Type: *Limneria cothurnata* Holmgren. Desig. by Viereck, 1914.
Olesicampa Thomson, 1887. Opusc. Ent., fasc. 11, pp. 1053, 1139.
Type: *Ichneumon longipes* Mueller. Desig. by Viereck, 1912.
?Holocremna Thomson, 1887. Opusc. Ent., fasc. 11, pp. 1053, 1176.
Type: *Limneria cothurnata* Holmgren. Desig. by Viereck, 1914.
Limnerium Ashmead, 1900. Canad. Ent. 32: 368. N. name for *Limneria*.
Zaplatystoma Viereck, 1925; 1926. Canad. Ent. 57: 177, 180; 58: 6.
Type: *Zaplatystoma typicum* Viereck. Orig. desig.
Key to species: Viereck, 1925. Canad. Ent. 57: 180–181, 203.

Species of this genus are parasitic on sawflies. They oviposit in the host larva and emerge from the host cocoon.

alaskensis (Ashmead). Alaska, B. C., Wash., Oreg., N. H.
Olesicampa alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 235. ♂.

annulata (Provancher). Que.
Pyracmon annulatum Provancher, 1879. Nat. Canad. 11: 182. ♀.

atypica (Viereck). B. C. (Metlakatla).
Pyracmonoides atypicum Viereck, 1925. Canad. Ent. 57: 177, 300. ♂.

banffensis (Viereck). Alta., Wash., Man. Canad. and Huds. Zones.
Campoplex (*Ameloctonus*) *banffensis* Viereck, 1925; 1926. Canad. Ent. 57: 224; 58: 278. ♀.
Campoplex (*Ameloctonus*) *pauxillus* Viereck, 1925; 1926. Canad. Ent. 57: 224; 58: 278. ♀.

barbata (Provancher). Que., Conn., N. Y., N. J., Pa.
Mesoleptus barbatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 98. ♀.
Campoplex (*Holocremnus*) *metacomet* Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 264. ♀.

beginii (Ashmead). Que. (Sherbrooke).
Prionopoda beginii Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 198. ♀.

brachyura (Ashmead). Mich., N. Y.
Limneria brachyura Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 431. ♀.

californica (Cresson). Calif. (San Diego).
Limneria californica Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 369. ♂.

cushmani (Viereck). Ont., N. Y., N. C., Sask., Wash. Transit. and Canad. Zones.
Campoplex (*Ameloctonus*) *diversus* Viereck, 1925; 1926. Canad. Ent. 57: 224; 58: 277. ♀. Preocc.
Campoplex (*Ameloctonus*) *cushmani* Viereck, 1926. Canad. Ent. 58: 279. N. name.

decora (Viereck). B. C. (Hedley).
Zaplatystoma decorum Viereck, 1925; 1926. Canad. Ent. 57: 181; 58: 31. ♀.

delicata (Viereck). Ont. (Sudbury).
Campoplex (*Ameloctonus*) *delicatus* Viereck, 1925; 1926. Canad. Ent. 57: 224; 58: 278. ♀.

dentata (Provancher). Que.
Macrus dentatus Provancher, 1874. Nat. Canad. 6: 150. ♀.
Limneria ruficornis Provancher, 1875. Nat. Canad. 7: 147, 149. ♀.

egregia (Viereck). Ont. (Sudbury).
Zaplatystoma egregium Viereck, 1925; 1926. Canad. Ent. 57: 181; 58: 30. ♀.
Taxonomy: Roman, 1930. Ann. Mag. Nat. Hist. (10) 5: 287.

euurae (Ashmead). Utah (Pariah).
Limneria euurae Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 433. ♂ ♀.

extrema (Holgmren). Greenland.
Limneria extrema Holmgren, 1872. Öfvers. Svenska Vetensk. Akad. Förth. 29 (6): 98. ♀.

flavirictus (Cresson). Que., N. H., Conn., R. I., N. Y., Pa., S. Dak.
Mesoleptus flavirictus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 263. ♀.
Zaplatystoma cinereum Viereck, 1925; 1926. Canad. Ent. 57: 181; 58: 7. ♀.

fossata (Viereck). Ont. (Sudbury).
Pyracmon fossatum Viereck, 1925; 1926. Canad. Ent. 57: 180; 58: 6. ♂.

johnsoni (Viereck). N. H. (Glen House).
Zaplatystoma johnsoni Viereck, 1925; 1926. Canad. Ent. 57: 181; 58: 32. ♀.

kincaidi (Davis). Wash. (Seattle and Mt. Rainier at timberline).
Omoborus kincaidi Davis, 1898. Amer. Ent. Soc. Trans. 24: 363. ♂.

lata (Viereck). Man., Alta.
Zaplatystoma latum Viereck, 1925; 1926. Canad. Ent. 57: 181; 58: 7. ♂.
Zaplatystoma simplex Viereck, 1925; 1926. Canad. Ent. 57: 181; 58: 30. ♀.

lophyri (Riley). Que., Ont., Ohio, Mich., Iowa. Hosts: *Neodiprion abbotii* (Leach); *N. pinetus* (Nort.).
Limneria lophyri Riley, 1877. Ins. Mo. Ann. Rpt. 9: 32. ♂ ♀.

mimetica (Viereck). Alta., Wash., Oreg.
Zaplatystoma mimeticum Viereck, 1925; 1926. Canad. Ent. 57: 181; 58: 31. ♀.

modesta (Brues). N. W. T. (Bernard Harbor).
Dioctes modestus Brues, 1919. Rpt. Canad. Arctic Exped. 1913–18, v. 3, pt. G, p. 23. ♂ ♀.

nematicida (Viereck). B. C. (Hatzic). Host: Sawfly on *Ribes* sp.
Campoplex (Ameloctonus) nematicidus Viereck, 1925; 1926. Canad. Ent. 57: 224; 58: 258. ♀.

nigridorsis (Viereck). Ont. (Prince Edward Co.).
Campoplex (Ameloctonus) nigridorsis Viereck, 1925; 1926. Canad. Ent. 57: 224; 58: 277. ♀.

obscuripes (Viereck). N. Mex. (Beulah).
Limnerium obscuripes Viereck, 1903. Amer. Ent. Soc. Trans. 29: 91. ♀.

ocellata (Viereck). Ont. (Ottawa).
Zaplatystoma ocellatum Viereck, 1925; 1926. Canad. Ent. 57: 181; 58: 8. ♂.

patula (Viereck). Man. (Winnipeg).
Pyracmon patulum Viereck, 1925; 1926. Canad. Ent. 57: 180; 58: 5. ♀.

peraffinis (Ashmead). Tex.
Limneria peraffinis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 435. ♀.

petiolata (Viereck). Ont. (Sudbury).
Zaplatystoma petiolatum Viereck, 1925; 1926. Canad. Ent. 57: 181; 58: 31 ♂.

pikonemae Walley. N. S., N. B., Ont., B. C. Hosts: *Pikonema alaskensis* (Roh.); *P. dimmockii* (Cress.).
Olesicampe pikonemae Walley, 1942. Canad. Ent. 74: 193. ♂ ♀.

pteronideae (Rohwer). Va. (Falls Church). Hosts: *Nematus* (*Pteronidea*) *erythrogaster* Nort.
Homalomma pteronideae Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 219. ♂.

sericea (Provancher). Que., N. Y., R. I., Va.
Limneria sericea Provancher, 1875. Nat. Canad. 7: 148, 149. ♂.
Holocremnus flaviclypeus Viereck, 1921. Psyche 28: 75. ♂.

typica (Viereck). Que., N. Y.
Zaplatystoma typicum Viereck, 1925; 1926. Canad. Ent. 57: 181; 58: 7. ♂ ♀.

virginiensis (Viereck). N. Y., Va.
Holocremnus virginiensis Viereck, 1921. Psyche 28: 76. ♀.

Genus BENJAMINIA Viereck

Benjaminia Viereck, 1912. U. S. Natl. Mus. Proc. 42: 633.
Type: *Charops fuscipennis* Provancher. Orig. desig.

Zachrestoides Viereck, 1925; 1926. Canad. Ent. 57: 177, 179; 58: 2.
Type: ***Zachrestoides euphydryadis*** Viereck. Orig. desig.
Key to species: Viereck, 1925. Canad. Ent. 57: 179.

Members of this genus are parasites of *Euphydryas* and *Melitaea*.

fuscipennis (Provancher). Calif., Nev. Host: *Euphydryas chalcedona* (Dbldy. and Hew.).
Charops fuscipennis Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 365. ♀.

euphydryadis (Viereck). Que., Mass. Hosts: *Euphydryas phaeton* (Drury); *Melitaea harrisii* Scudd.
Zachrestoides euphydryadis Viereck, 1925; 1926. Canad. Ent. 57: 179; 58: 3. ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 152.

Genus CHAROPSIMORPHA Viereck

Charopsimorpha Viereck, 1912. U. S. Natl. Mus. Proc. 42: 635.
Type: ***Charops tibialis*** Cresson. Orig. desig.
Paracharops Kreibohm de la Vega, 1940. Rev. Industrial y Agricola de Tucuman 3: 170. N. syn.
Type: ***Paracharops annulatus*** Kreibohm de la Vega. Monob.

tibialis (Cresson). Atlantic to 100° W. in U. Austr. and L. Austr. Zones; Cuba, Mexico, Costa Rica. Hosts: *Asterocampa celtis* (Bdvl. and Lec.); *A. clyton* (Bdvl. and Lec.); *Hemiceras rava* Schaus; *Hippia insularis* Grote; *Symmerista albifrons* (A. and S.).
Charops tibialis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 173. ♂.
Charops apaturae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 193. ♂.

Tribe CREMASTINI

Members of this tribe are parasitic mostly on microlepidopterous larvae in leaf rolls, tunnels, or similar hiding places. Many of them frequent drier habitats than are usual for the family.

Genus DIMOPHORA Foerster

Dimophora Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 155.
Type: ***Dimophora robusta*** Brischke. Desig. by Viereck, 1914.
Dimophorus Thomson, 1890. Opusc. Ent., fasc. 14, pp. 1356, 1457. As ***Demophorus*** on p. 1457.
Type: (***Demophorus arenicola*** Thomson) = ***Dimophora robusta*** Brischke. Desig. by Viereck, 1914.
Oligotmema Cushman, 1920. U. S. Natl. Mus. Proc. 58: 280.
Type: ***Oligotmema prima*** Cushman. Orig. desig.

prima (Cushman). Colo., in Canad. Zone.
Oligotmema prima Cushman, 1920. U. S. Natl. Mus. Proc. 58: 281. ♀.
Taxonomy: Cushman, 1922. U. S. Natl. Mus. Proc. 60 (21): 22. ♂ ♀.

Genus PRISTOMERUS Curtis

Pristomerus Curtis, 1836. Brit. Ent. 13: 624.
Type: ***Ichneumon vulnerator*** Panzer. Orig. desig.
Pristomeridia Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 100.
Type: (***Porizon agilis*** Cresson)=***Pristomerus austrinus*** Townes. Orig. desig.
Pristocelus Szépligeti, 1905. *In* Wytsman, Gen. Ins., v. 34, p. 48. N. syn.
Type: ***Pristocelus atriceps*** Szépligeti. Monob.
Neopristomerus Viereck, 1912. U. S. Natl. Mus. Proc. 43: 592. N. syn.
Type: ***Pristomerus appalachianus*** Viereck. Orig. desig.
Revision: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 272–280.

austrinus Townes and Townes, n. name. Atlantic to 100° W. in U. Austr. and L. Austr. Zones; Mexico, Guatemala. Hosts: *Acrobasis caryivorella* Rag;.

Mineola vaccinii (Riley); *Carpocapsa pomonella* (L.); *Epiblema scudderiana* (Clem.); *Grapholitha molesta* (Busck); *Gretchena bolliana* (Sling.).

Porizon? agilis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 175. ♀. Preocc.

Biology: Franklin and Morse, 1914. Mass. Agr. Expt. Sta. Bul. 150: 56.—Franklin, 1915. Mass. Agr. Expt. Sta. Bul. 160: 109.—Franklin, 1916. Mass. Agr. Expt. Sta. Bul. 168: 39–40.—Franklin, 1917. Mass. Agr. Expt. Sta. Bul. 180: 229.

baumhoferi Cushman. Ont., Fla., Ark., Nebr., Tex., Colo., Idaho, Nev., Ariz. Dry habitats. Hosts: *Stagmatophora ceanothiella* Cosens; *Rhyacionia frustrana bushnelli* Busck.

Pristomerus baumhoferi Cushman, 1930. U. S. Natl. Mus. Proc. 76 (25): 9. ♂ ♀.

euryptychiae Ashmead. Atlantic to 100° W. in U. Austr. and L. Austr. Zones. Commoner in the north than is *P. austrinus*. Hosts: *Ancylis comptana* (Froel.); *Carpocapsa pomonella* (L.); *Ecdytolopha insiticiana* Zell.; *Epiblema otiosana* (Clem.); *E. strenuana* (Wlkr.); *Grapholitha molesta* (Busck); *Proteoteras willingana* Kearf.; *Acrobasis caryivorella* Rag.; *A. juglandis* (LeB.).

Pristomerus euryptychiae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 192. ♀.

Pristomerus (Pristomerus) ocellatus Cushman, 1920. U. S. Natl. Mus. Proc. 58: 277. ♂ ♀. N. syn.

Biology: Pepper and Driggers, 1934. Ent. Soc. Amer. Ann. 27: 596.—Haden, 1935. Univ. Del. Agr. Expt. Sta. Bul. 194: 12–41.—Rice, 1937. Jour. Econ. Ent. 30: 112.—Allen, Holloway, and Haeussler, 1940. U. S. Dept. Agr. Cir. 561: 12, 58.

laticeps Cushman. Ont., N. Y., N. J., Va.

Pristomerus (Pristomerus) laticeps Cushman, 1920. U. S. Natl. Mus. Proc. 58: 277. ♀.

Pristomerus (Pristomerus) idei Viereck, 1925. Canad. Ent. 57: 74. ♀.

minutus Cushman. Calif. Host: *Recurvaria milleri* Busck.

Pristomerus (Pristomerus) minutus Cushman, 1920. U. S. Natl. Mus. Proc. 58: 279. ♀.

olamonus Viereck. Atlantic to 100° W. in Transit. and U. Austr. Zones. On *Solidago* flowers in fall.

Pristomerus olamonus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 274. ♀.

Pristomerus (Pristomerus) fuscipennis Cushman, 1920. U. S. Natl. Mus. Proc. 58: 275. ♂ ♀.

pacificus appalachianus Viereck, n. status. Alta. and Sask. to La., Tex., and N. Mex. between Mississippi River and Cont. Divide; also Utah, Ariz.; Mexico, Honduras, Brazil, Virgin Islands, and Hawaii. Hosts: *Canarsia* sp.; *Elasmopalpus lignosellus* (Zell.); *Loxostege sticticalis* (L.); *Laphygma exigua* (Hbn.); *L. frugiperda* (A. and S.); *Prodenia praefica* Grote.

Pristomerus appalachianus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 298. ♂ ♀.

Pristomerus appalachianus var. ***dorsocastaneus*** Viereck, 1905. Kans. Acad. Sci. Trans. 19: 299. ♂ ♀.

Biology: Luginbill, 1928. U. S. Dept. Agr. Tech. Bul. 34: 65.—Vickery, 1929. U. S. Dept. Agr. Tech. Bul. 138: 39.

pacificus melleus Cushman, n. status. Gulf and Atlantic States north to R. I., also Tenn. and Ark. Hosts: "*Gelechia*" sp.; *Elasmopalpus lignosellus* (Zell.).

Pristomerus (Neopristomerus) melleus Cushman, 1920. U. S. Natl. Mus. Proc. 58: 279. ♂ ♀.

Pristomerus Bolloui Enderlein, 1921. Ent. Ztschr. 82: 9. ♂.

pacificus pacificus Cresson. Idaho, Utah, Colo., Calif. Host: *Colias notatus eurytheme* Bdvl.

Pristomerus pacificus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 370. ♀.

Pristomerus coloradensis Brues, 1911. Psyche 18: 23. ♀. N. syn.

Neopristomerus woodworthi Viereck, 1921. Ent. News 32: 172. ♂ ♀. N syn.

Genus ZALEPTOPYGUS Viereck

Zaleptopygus Viereck, 1911. U. S. Natl. Mus. Proc. 41: 294.
Type: (*Zaleptopygus obereae* Viereck) = [*Leptopygus*] *orbus* (Davis). Orig. desig.
Neocremastus Cushman. 1917. U. S. Natl. Mus. Proc. 53: 504, 509.
Type: *Porizon stigmaterus* Cresson. Orig. desig.
Revision: Cushman, 1917. U. S. Natl. Mus. Proc. 53: 511–516, 532–548.

aciculatus (Davis). Mass., Conn., N. Y., Mich., Ga.
Cremastus aciculatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 364. ♂.
Taxonomy: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 283.

albipennis (Cresson). Colo.
Porizon albipennis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 287. ♀.
Taxonomy: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 283.

anomalus (Cushman). Colo.
Cremastus (*Zaleptopygus*) *anomalus* Cushman, 1917. U. S. Natl. Mus. Proc. 53: 542. ♀.

audax (Cresson). Tex.
Porizon audax Cresson, 1872. Amer. Ent. Soc. Trans. 4: 174. ♂.

bilineatus (Cushman). N. J., Mich.
Cremastus (*Zaleptopygus*) *bilineatus* Cushman, 1917. U. S. Natl. Mus. Proc. 53: 545. ♂ ♀.

brunneipennis (Walley). Ont. (Chatham).
Cremastus (*Zaleptopygus*) *brunneipennis* Walley, 1933. Canad. Ent. 65: 253. ♂ ♀.

californicus (Provancher). Calif. (Los Angeles).
Porizon Californicum Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 364. ♂.

champlaini (Cushman). N. Y., Pa., Mich., S. Dak. Host: *Elaphidion* sp.
Cremastus (*Zaleptopygus*) *champlaini* Cushman, 1922. U. S. Natl. Mus. Proc. 60 (21): 22. ♂ ♀.

cleridivorus (Cushman). Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: *Enoclerus quadriguttatus* (Oliv.).
Cremastus (*Zaleptopygus*) *cleridivorus* Cushman, 1917. U. S. Natl. Mus. Proc. 53: 534. ♀.

delicatus (Cresson). Tex. (Bosque Co.).
Porizon? *delicatus* Cresson, 1872. Amer. Ent. Soc. Trans. 4: 176. ♂.

dorcaschemae (Cushman). N. Y. (Syracuse). Host: *Dorchaschema nigrum* (Say).
Cremastus (*Zaleptopygus*) *dorcaschemae* Cushman, 1920. U. S. Natl. Mus. Proc. 58: 287. ♂ ♀.
Biology: Blackman and Stage, 1924. N. Y. State Col. Forestry Tech. Pub. 17: 182.

egregiacolor (Viereck). Kans., Colo., N. Mex.
Thersilochus egregiacolor Viereck, 1905. Kans. Acad. Sci. Trans. 19: 302. ♀.
Cremastus (*Zaleptopygus*) *terebratus* Cushman, 1917. U. S. Natl. Mus. Proc. 53: 539. ♀.

flavo-orbitalis (Cameron). Once established in Mass., Va., and Ohio, but has since disappeared. Widely distributed in Australian and Oriental regions. Host in U. S.: *Pyrausta nubilalis* (Hbn.).
Tarytia flavo-orbitalis Cameron, 1907. Bombay Nat. Hist. Soc. Jour. 17 (3): 589. ♀.
Taxonomy: Cushman, 1933. Ent. Soc. Wash. Proc. 35: 73.
Biology: Bradley and Burgess, 1934. U. S. Dept. Agr. Tech. Bul. 441: 1–15.
Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 245–247.

fuscipennis (Cresson). Colo., Kans.
Porizon fuscipennis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 287. ♀.

gallaecola (Cushman). Ont., Va., Tex. Host: *Gnorimoschema gallaesolidaginis* (Riley).
Cremastus (*Zaleptopygus*) *gallaecola* Cushman, 1917. U. S. Natl. Mus. Proc. 53: 546. ♂ ♀.

granulatus (Davis). Mich. (Agricultural College).
Cremastus granulatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 365. ♂ ♀.
Taxonomy: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 284.

hartii (Ashmead). Ill., N. J.
Cremastus hartii Ashmead, 1895. Ill. Lab. Nat. Hist. Bul. 4: 271, 277. ♂ ♀.
Taxonomy: Cushman, 1930. U. S. Natl. Mus. Proc. 76 (25): 11. ♂ ♀.

hyalinipennis (Cresson). Gulf and Atlantic States north to N. J.; also S. Dak. and Kans.
Porizon hyalinipennis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 174. ♂ ♀.

incompletus (Provancher). Atlantic to 100° W. in Canad. and Transit. Zones.
Mesoleptus incompletus Provancher, 1875. Nat. Canad. 7: 270, 272. ♂ ♀.
Atractodes fusiformis Provancher, 1875. Nat. Canad. 7: 332, 333. ♀.
Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 245, 246, 249, 250.

latithorax (Cushman). Tex. (Sabinal).
Cremastus (Zaleptopygus) latithorax Cushman, 1920. U. S. Natl. Mus. Proc. 58: 286. ♀.

mellipes (Provancher). Que., N. Y., N. J.
Atractodes mellipes Provancher, 1875. Nat. Canad. 7: 332, 333. ♀.

mordellistenae (Cushman). Colo. Hosts: *Mordellistena aemula* Lec.; *M. morula* Lec.
Cremastus (Zaleptopygus) mordellistenae Cushman, 1917. U. S. Natl. Mus. Proc. 53: 539. ♂ ♀.
Taxonomy: Cushman, 1927. U. S. Natl. Mus. Proc. 72 (13): 20.

nemoralis (Davis). Mass., N. Y., Mich.
Cremastus nemoralis Davis, 1898. Amer. Ent. Soc. Trans. 24: 364. ♂ ♀.
Taxonomy: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 284.

nigriclypealis (Cushman). N. Mex. (Las Cruces).
Cremastus (Zaleptopygus) nigriclypealis Cushman, 1917. U. S. Natl. Mus. Proc. 53: 543. ♀.

obesus (Cushman). Md. (Hyattsville).
Cremastus (Zaleptopygus) obesus Cushman, 1920. U. S. Natl. Mus. Proc. 58: 285. ♀.

orbitalis (Cresson). Md., Ala., Tex.
Porizon orbitalis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 174. ♂ ♀.

orbus (Davis). Conn., N. Y., N. J., Pa., Mich., Ill., La. Host: *Oberea tripunctata* Swed.
Leptopygus orbus Davis, 1898. Amer. Ent. Soc. Trans. 24: 365. ♂ ♀.
Zaleptopygus obereae Viereck, 1911. U. S. Natl. Mus. Proc. 41: 295. ♂ ♀.
Taxonomy: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 284.

plesius (Cushman). ?Mich.
Cremastus (Zaleptopygus) plesius Cushman, 1917. U. S. Natl. Mus. Proc. 53: 535. ♀.

quintilis (Viereck). Kans.
Thersilochus mimeticus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 300. ♀.
Thersilochus quintilis Viereck, 1905. Kans. Acad. Sci. Trans. 19: 301. ♂.

retiniae (Cresson). N. Y., Md., D. C., Va. Host: *Rhyacionia rigidana* (Fern.).
Crematus retiniae Cresson, 1880. U. S. Dept. Agr. Ann. Rpt. for 1879, p. 238. ♂.

rohweri (Cushman). Pa. (Mount Union).
Cremastus (Zaleptopygus) rohweri Cushman, 1917. U. S. Natl. Mus. Proc. 53: 541. ♀.

rosae (Cushman). N. J., Va.
Cremastus (Zaleptopygus) rosae Cushman, 1917. U. S. Natl. Mus. Proc. 53: 536. ♀.

rostratus (Cushman). Mass., Conn., N. Y., Pa., Md. On *Solidago* flowers.
Cremastus (Zaleptopygus) rostratus Cushman, 1917. U. S. Natl. Mus. Proc. 53: 532. ♀.

similis (Cushman). R.. I., Conn., N. Y., Pa., N. J., N. C., Idaho.
Cremastus (*Zaleptopygus*) *similis* Cushman, 1917. U. S. Natl. Mus. Proc. 53: 535. ♀.

snowi (Viereck). Kans. (Hamilton Co.).
Thersilochus snowi Viereck, 1905. Kans. Acad. Sci. Trans. 19: 299. ♀.

stigmaterus (Cresson). Tex. (Bosque Co.).
Porizon stigmaterus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 174. ♂ ♀.
Taxonomy: Cushman, 1917. U. S. Natl. Mus. Proc. 53: 509.

tetralophae (Cushman). Fla. (Monticello).
Cremastus (*Zaleptopygus*) *tetralophae* Cushman, 1917. U. S. Natl. Mus. Proc. 53: 537. ♂ ♀.

vierecki (Cockerell). N. Mex. (10 mi. W. of La Luz).
Porizon Vierecki Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 200. ♂.

Genus PSEUDERIPTERNUS Viereck

Pseuderipternus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 268, 269.
Type: *Podogaster radiolatus* Provancher. Monob.
Revision: Cushman, 1917. U. S. Natl. Mus. Proc. 53: 505–508.

brevicauda Cushman. Ont., N. H., Ohio, Mich.
Pseuderipternus brevicauda Cushman, 1917. U. S. Natl. Mus. Proc. 53: 506. ♂ ♀.

elongatus (Davis). Mass., N. J., Ga.
Ateleuti (!) *elongatus* Davis, 1898. Amer. Ent. Soc. Trans. 24: 362. ♀.

radiolatus (Provancher). Maine and Que. to Md.
Podogaster radiolatus Provancher, 1875. Nat. Canad. 7: 329. ♀.

Genus DOLICHOPSELEPHUS Ashmead

Dolichopselephus Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 23.
Type: *Dolichopselephus cockerelli* Ashmead. Monob.

cockerelli Ashmead. Colo., Sask.
Dolichopselephus Cockerelli Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 23. ♀.

Genus CREMASTUS Gravenhorst

Cremastus Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 370.
Type: *Cremastus spectator* Gravenhorst. Desig. by Westwood, 1839.
Temelucha Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 148.
Type: *Temelucha plutellae* Ashmead. Included by Ashmead, 1904.
Neleothymus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 200.
Type: *Neleothymus? rufo-ornatus* Cameron. Desig. by Townes, 1945.
Paurolexis Cameron, 1906. Bombay Nat. Hist. Soc. Jour. 17: 282.
Type: *Paurolexis flavus* Cameron. Monob.
Tarytia Cameron, 1907. Bombay Nat. Hist. Soc. Jour. 17: 588.
Type: *Tarytia basimacula* Cameron. Desig. by Morley, 1913.
Cremastidea Viereck, 1912. U. S. Natl. Mus. Proc. 13: 587.
Type: *Cremastidea chinensis* Viereck. Orig. desig.
Revision: Cushman, 1917. U. S. Natl. Mus. Proc. 53: 509–532.

attenuatus Cushman. Tex., S. C.
Cremastus (*Zaleptopygus*) *attenuatus* Cushman, 1920. U. S. Natl. Mus. Proc. 58: 286. ♂ ♀.

brevicauda Cushman. N. Mex. (Bernalillo Co.).
Cremastus (*Cremastus*) *brevicauda* Cushman, 1917. U. S. Natl. Mus. Proc. 53: 528. ♂ ♀.

brevinervis Cushman. Ariz. (Globe).
Cremastus* (*Cremastus*) *brevinervis Cushman, 1920. U. S. Natl. Mus. Proc. 58: 282. ♀.

brevipetiolus Cushman. N. Y., N. J., Pa., Md., Va.
Cremastus* (*Cremastus*) *brevipetiolus Cushman, 1917. U. S. Natl. Mus. Proc. 53: 525. ♂ ♀.

bruneiceps Cushman. D. C.
Cremastus* (*Cremastus*) *bruneiceps Cushman, 1920. U. S. Natl. Mus. Proc. 58: 283. ♀.

carpocapsae Cushman. Ohio. Hosts: *Carpocapsa pomonella* (L.); *Grapholitha molesta* (Busck).
Cremastus carpocapsae Cushman, 1930. U. S. Natl. Mus. Proc. 76: 11. ♂ ♀.

chilonis Cushman. Mich., Sask., Alta. Hosts: *Chilo forbesellus* Fern.
Cremastus chilonis Cushman, 1935. Wash. Acad. Sci. Jour. 25: 562. ♂ ♀.
Biology: Frohne, 1939. Amer. Micros. Soc. Trans. 58: 233, 325, 347.

cookii Weed. N. J., Del., Mich., Ohio, Ky., Ill., Kans., Utah. Hosts: *Ancylis comptana* (Froel.); *A. comptana fragariae* (W. and R.).
Cremastus cookii Weed, 1888. Ent. Amer. 4: 150. ♂ ♀.
Cremastus cookii var. ***rufus*** Weed, 1888. Ent. Amer. 4: 151. ♂.
Biology: Fink, 1932. Jour. Agr. Res. 44: 555, 556.—Haden, 1935. Univ. Del. Agr. Expt. Sta. Bul. 194: 29–42.—Summerland, 1938. Kans. Acad. Sci. Trans. 40: 165.

epagoges Cushman. Atlantic to 100° W. in U. Austr. and L. Austr. Zones. Hosts: *Blastodacna* sp.; *Cyphophora eloisella* (Clem.); *Archips cerasivorana* (Fitch); *Phalonia oenotherana* Riley; *Sparganothis sulfureana* (Clem.); *Carpocapsa pomonella* (L.); *Epiblema strenuana* (Wlkr.); *Grapholitha molesta* (Busck); *Rhyacionia frustrana* (Comst.); *R. frustrana bushnelli* (Busck).
Cremastus* (*Cremastus*) *epagoges Cushman, 1917. U. S. Natl. Mus. Proc. 53: 531. ♂ ♀.
Biology: Isely and Ackerman, 1923. Univ. Ark. Agr. Expt. Sta. Bul. 189: 47.—Cushman, 1927. Jour. Agr. Res. 34: 618.—Haden, 1935. Del. Agr. Expt. Sta. Bul. 194: 22–41.—Rice, 1937. Jour. Econ. Ent. 30: 108–115.

evetriae Cushman. Ariz., N. Mex. Host: *Rhyacionia frustrana bushnelli* Busck.
Cremastus* (*Cremastus*) *evetriae Cushman, 1917. U. S. Natl. Mus. Proc. 53: 530. ♀.

facilis (Cresson). Atlantic to Iowa, Kans., and N. Mex. in Transit. and U. Austr. Zones. Hosts: *Isophrictis similiella* (Chamb.); *Crambus topiarius* Zell.; *Hellula undalis* (F.); *Pyrausta ainsliei* Heinr.; *P. penitalis* (Grote).
Porizon facilis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 175. ♂ ♀.
Porizon macer Cresson, 1872. Amer. Ent. Soc. Trans. 4: 175. ♂ ♀.
Biology: Franklin, 1921. Mass. Agr. Expt. Sta. Bul. 206: 159.

ferrugineus Davis. Atlantic to 100° W. in Transit., U. Austr., and L. Austr. Zones. Host: *Diatraea crambidoides* Grote.
Cremastus ferrugineus Davis, 1898. Amer. Ent. Soc. Trans. 24: 364. ♂ ♀.
Atrometus angitioides Viereck, 1905. Kans. Acad. Sci. Trans. 19: 311. ♀.
Cremastus* (*Cremastus*) *graciliventris Cushman, 1917. U. S. Natl. Mus. Proc. 53: 522. ♀.
Taxonomy: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 282.

flaviceps Cushman. Colo., Tex.
Cremastus* (*Cremastus*) *flaviceps Cushman, 1917. U. S. Natl. Mus. Proc. 53: 521. ♂ ♀.

forbesi Weed. Atlantic to Colo. in Transit. and U. Austr. Zones. Hosts: *Coleophora salmani* Heinr.; *Aroga trialbamaculella* (Chamb.); *Filatima persicaeella* (Murtf.); *Argyotaenia velutinana* (Wlkr.); *Acleris minuta* (Rob.), *Epiblema strenuana* (Wlkr.); *Episimus argutatus* (Clem.); *Grapholitha molesta* (Busck); *Rhopobota naevana* (Hbn.).
Cremastus forbesi Weed, 1887. Ill. State Lab. Nat. Hist. Bul. 3: 42. ♀.
Biology: Driggers, 1930. N. J. Agr. Expt. Sta. Bul. 510: 17.—Haden, 1935. Del. Agr. Expt. Sta. Bul. 194: 16–35.

gracilipes Cushman. Pa., N. J., Del., D. C., Tex. Hosts: *Epiblema strenuana* (Wlkr.); *Grapholitha molesta* (Busck); *Dicymolomia julianalis* (Wlkr.).
Cremastus* (*Cremastus*) *gracilipes Cushman, 1917. U. S. Natl. Mus. Proc. 53: 520. ♀.
Taxonomy: Cushman, 1930. U. S. Natl. Mus. Proc. 76 (25): 10. ♂ ♀.

gracilis Cushman. N. J., Ky.
Cremastus* (*Cremastus*) *gracilis Cushman, 1917. U. S. Natl. Mus. Proc. 53: 519. ♀.

grapholithae Cushman. Del., Tenn. Host: *Grapholitha molesta* (Busck).
Cremastus grapholithae Cushman, 1935. Wash. Acad. Sci. Jour. 25: 561. ♂ ♀.

hamiltonensis (Viereck). Kans. (Hamilton Co.).
Thersilochus hamiltonensis Viereck, 1905. Kans. Acad. Sci. Trans. 19: 301. ♂.

interruptor Gravenhorst. Ont., N. Y., Conn., N. J. Introduced from Europe. Recorded in America also as *C. decoratus* (misdet.). Host: *Rhyacionia buoliana* (Schiff.).
Cremastus interruptor Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 736. ♂ ♀.

longigenalis Cushman. Que., Maine, N. H.
Cremastus* (*Cremastus*) *longigenalis Cushman, 1917. U. S. Natl. Mus. Proc. 53: 516. ♀.

minor Cushman. Atlantic to 100° W., mostly in U. Austr. Zone. Hosts: "*Gelechia*" sp.; *Gnorimoschema axenopis* (Meyr.); *Epiblema strenuana* (Wlkr.); *Grapholitha molesta* (Busck); *Rhopobota naevana* (Hbn.); *Celama sorghiella* (Riley).
Cremastus* (*Cremastus*) *minor Cushman, 1917. U. S. Natl. Mus. Proc. 53: 521. ♂ ♀.
Biology: Driggers, 1930. N. J. Agr. Expt. Sta. Bul. 510: 17.—Merritt, 1933. Mich. Agr. Expt. Sta. Quart. Bul. 15: 225.—Merritt, 1933. Midwest Fruitman Aug.-Sept. 1933, p. 8.—Pepper and Driggers, 1934. Ent. Soc. Amer. Ann. 27: 596.—Haden, 1935. Del. Agr. Expt. Sta. Bul. 194: 14–41.—Rice, 1937. Jour. Econ. Ent. 30: 112, 114.—Steenburgh and Boyce, 1938. Ent. Soc. Ontario Ann. Rpt. 69: 72.
Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 245–247, 249, 250.

platynotae Cushman. Ariz. (Tempe). Host: *Platynota flavedana* Clem.
Cremastus* (*Cremastus*) *platynotae Cushman, 1917. U. S. Natl. Mus. Proc. 53: 526. ♂ ♀.

protractus Cushman. Wash. (Pullman). Host: *Coleophora* sp. on *Aster eastoni*.
Cremastus protractus Cushman, 1935. Wash. Acad. Sci. Jour. 25: 563. ♀.

pterophori Cushman. Wis. Host: *Oidaematophorus lacteodactylus* (Chamb.).
Cremastus pterophori Cushman, 1930. U. S. Natl. Mus. Proc. 76 (25): 13. ♂ ♀.

rectus Provancher. N. B. to N. C., west to Wis.
Cremastus rectus Provancher, 1874. Nat. Canad. 6: 175. ♀.
Cremastus* (*Cremastus*) *longiventris Cushman, 1917. U. S. Natl. Mus. Proc. 53: 517. ♀.

rhyacioniae Cushman. Atlantic to Sask. and S. Dak., in Canad. Zone. Host: *Rhyacionia frustrana bushnelli* (Busck).
Cremastus rhyacioniae Cushman, 1930. U. S. Natl. Mus. Proc. 76 (25): 12. ♂ ♀.

ruficeps Cushman. Wis. (Milwaukee).
Cremastus* (*Cremastus*) *ruficeps Cushman, 1917. U. S. Natl. Mus. Proc. 53: 518. ♀.

sinuatus Cushman. Tex., Calif. Hosts: *Cactobrosis strigalis* (Barnes and McD.); *Melitara* sp., *Rumatha glaucatella* (Hulst).
Cremastus* (*Cremastus*) *sinuatus Cushman, 1926. U. S. Natl. Mus. Proc. 67 (23): 12. ♂ ♀.

tortricidis Cushman. Ont., Mich., Ohio, Tenn., S. C. Hosts: *Sparganothis sulfureana* (Clem.); *Grapholitha molesta* (Busck).
Cremastus* (*Cremastus*) *tortricidis Cushman, 1917. U. S. Natl. Mus. Proc. 53: 528. ♀.

Genus AREOLOPRISTOMERUS Cushman

Areolopristomerus Cushman, 1920. U. S. Natl. Mus. Proc. 58: 274
Type: (*Pristomerus* (*Areolopristomerus*) *smithi* Cushman)= [*Pristomeridea*] *dubius* (Brues). Orig. desig.

dubius (Brues). Gulf and Atlantic States north to Mass.
Pristomeridia? dubia Brues, 1911. Psyche 18: 24. ♀.
Pristomerus (*Areolopristomerus*) *smithi* Cushman, 1920. U. S. Natl. Mus. Proc. 58: 274. ♀.

Genus EIPHOSOMA Cresson

Eiphosoma Cresson, 1865. Ent. Soc. Phila. Proc. 4: 52.
Type: *Eiphosoma annulatum* Cresson. Desig. by Viereck, 1914.
Xiphosoma Marshall, 1892. Ent. Soc. France Ann. 61: 65. Emend.
Brachixiphosoma Viereck, 1912. U. S. Natl. Mus. Proc. 42: 147.
Type: *Eiphosoma pyralidis* Ashmead. Orig. desig.
Revision: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 269–272.

annulatum Cresson. South. Tex., West Indies, Mexico, and south to Argentina.
Host: *Mimorista flavidissimalis* (Grote).
Eiphosoma annulatum Cresson, 1865. Ent. Soc. Phila. Proc. 4: 54. ♀.
Eiphosoma bruesi Cushman, 1920. U. S. Natl. Mus. Proc. 58: 272. ♀. N. syn.
Taxonomy: Cushman, 1920. U. S. Natl. Mus. Proc. 58: 271. (As *E. texanum*, misdet.).

mexicanum Cresson. Fla. (Gainesville); Mexico.
Eiphosoma mexicana Cresson, 1873. Acad. Nat. Sci. Phila. Proc. 25: 380. ♀.

pyralidis Ashmead. Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: Pyralidid on *Solidago* sp.
Eiphosoma pyralidis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 191. ♂.

septentrionale Brues. Conn. and Ill. south to S. C. and Ala.
Eiphosoma septentrionale Brues, 1911. Psyche 18: 22. ♀.

texanum Cresson. Tex., Ariz., Utah; Mexico. Desert.
Eiphosoma texana Cresson, 1872. Amer. Ent. Soc. Trans. 4: 176. ♀.

Tribe TERSILOCHINI

Genus LEPTOPYGUS Foerster

Leptopygus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 148.
Type: *Ichneumon harpurus* Schrank. Desig. by Viereck, 1914.

angularis (Provancher). Transcont. in Canad. and Transit. Zones.
Cremastus angularis Provancher, 1874. Nat. Canad. 6: 176. ♂.
Mesoleptus micans Provancher, 1875. Nat. Canad. 7: 114. ♂.
Porizon elongatum Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 91. ♂ ♀.
Atractodes politus Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 23. ♂ ♀.
Porizon canaliculatus Viereck, 1903. Amer. Ent. Soc. Trans. 29: 92. ♂.

borealis (Provancher). Que., N. Y.
Porizon borealis Provancher, 1877. Nat. Canad. 9: 14. ♂.
?Porizon boreale Provancher, 1879. Nat. Canad. 11: 206. ♀. Preocc.
Porizon rugosum Provancher, 1879. Nat. Canad. 11: 206. ♀.

Genus CRATOPHION Thomson

Cratophion Thomson, 1889. Opusc. Ent., fasc. 13, p. 1363.
Type: *Porizon gravipes* Gravenhorst. Desig. by Viereck, 1914.

errabundus (Provancher). Maine, N. H., Ont.
Thersilochus errabundus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 92. ♀.
Notopygus americana Harrington, 1892. Canad. Ent. 24: 98. ♀

Genus BARYCNEMIS Foerster

Barycnemis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 147.
Type: ***Porizon claviventris*** Gravenhorst. Desig. by Viereck, 1914.
Zasternaulax Viereck, 1912. U. S. Natl. Mus. Proc. 42: 647.
Type: ***Zasternaulax simplicicornis*** Viereck. Orig. desig.

claviventris (Gravenhorst). Greenland, N. H., N. Y., Colo.; Europe.
Porizon claviventris Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 755. ♀.
Barycnemis slossonae Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 8. ♀.

linearis Ashmead. Ont. (Ottawa).
Barycnemis linearis Ashmead, 1895. Ent. Soc. Wash. Proc. 3: 238. ♀.

simplicicornis (Viereck). Mont., Colo., Wash., Oreg. Host: *Pissodes* sp.
Zasternaulax simplicicornis Viereck, 1912. U. S. Natl. Mus. Proc. 42: 647. ♂.

Genus TERSILOCHUS Holmgren

Tersilochus Holmgren, 1859. Öfvers. Svenska Vetensk. Akad. Förh. 15: 329.
Type: ***(Porizon iocator*** Gravenhorst)=***[Ichneumon] jocator*** (Fabricius). Orig. desig.
Thersilochus Holmgren, 1860. Svenska Vetensk. Akad. Handl. 2: 135. Emend.

alaskensis (Ashmead). Alaska (Popof Isl.).
Isurgus alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 239. ♀.

conotracheli (Riley). Atlantic to 100° W. in Transit. and U. Austr. Zones. Hosts: *Conotrachelus anaglypticus* (Say); *C. nenuphar* (Herbst); *C. retentus* (Say).
***Porizon* conotracheli** Riley, 1871. Ins. Mo. Ann. Rpt. 3: 28. ♂ ♀.
Biology: Riley and Howard, 1889. U. S. Dept. Agr. Rpt. for 1888, p. 64.—Quaintance and Jenne, 1912. U. S. Dept. Agr. Bur. Ent. Bul. 103: 147.—Cushman, 1916. Jour. Agr. Res. 6: 847–855, pl. 109.—Cushman, 1926. Ent. Soc. Wash. Proc. 28: 31, pl. 3, figs. 10, 14, 15, 17, 18.—Dozier, Williams, and Butler, 1932. Del. Agr. Expt. Sta. Bul. 175: 38–39.
Taxonomy: Cushman, 1916. Jour. Agr. Res. 6: 847–855, pl. 109.

deficiens (Provancher). Ont. (Ottawa).
Stilpnus deficiens Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 359. ♀.

Genus HETEROCOLA Foerster

Heterocola Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 148.
Type: ***Thersilochus proboscidalis*** Thomson. Included by Szépligeti, 1899.

americana Brues. Mass., R. I., N. Y., Md., W. Va. In fall, on *Solidago* flowers.
Heterocola americana Brues, 1916. Ent. News 27: 331. ♀.

Tersilochini of Uncertain Genus

The following species are near *Tersilochus* but on account of the elongate gastrocoeli can not be referred to this genus. Without the time and material to evaluate the various genera of this group that are used by European authors, the authors do not attempt generic placements.

Aneuclis erythrostomus Cameron. Nev. (Ormsby Co.).
Aneuclis? erythrostomus Cameron, 1903. Invertebrata Pacifica 1: 131. ♀.

Thersilochus maturus Provancher. Que., Wyo.
Thersilochus maturus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 92. ♀.

Thersilochus montanus Ashmead. Colo. (Cimmaron).
Thersilochus montanus Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 23. ♂.

Thersilochus provancheri Ashmead. Que.
Thersilochus pallipes Provancher, 1882. Nat. Canad. 13: 367. ♀. Preocc.
Thersilochus provancheri Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 24. N. name.
Thersilochus provancheri Cushman, 1922. U. S. Natl. Mus. Proc. 61 (8): 30. N. name.

Tribe ANOMALINI

Subtribe ANOMALINA

Genus ANOMALON Panzer

Anomalon Panzer, 1804. Faunae Ins. German., heft 94, pl. 15.
Type: (***Anomalon cruentatus*** Panzer)=[***Ophion***] ***foliator*** (Fabricius). Monob.
Trachynotus Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 713. Preocc.
Type: ***Ophion foliator*** Fabricius. Monob.
Ochlerus Gistel, 1848. Naturgesch. Thierr. f. höh Schul., p. xi. N. name for *Trachynotus*. Preocc.
Nototrachys Marshall, 1872. Ent. Soc. London Trans., p. 259. N. name for *Trachynotus*.

The species of *Anomalon* occur in the drier habitats. Larvae of Elateridae seem to be the usual hosts.

californicum (Cresson). N. Mex., Ariz., and south. Calif. in Sonor. desert; Hawaii.
Nototrachys californicus Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 366. ♀.

ejuncidum Say. Atlantic to Cont. Divide in Transit., U. Austr., L. Austr., and Tropical Zones; also Ariz., south. Calif.; Cuba, Mexico, Guatemala, Honduras, and Dominican Republic.
Anomalon ejuncidum Say, 1836. Boston Jour. Nat. Hist. 1: 241. ♀.
Trachynotus fuscatus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 50. ♂ ♀.
Trachynotus texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 169. ♀.
Trachynotus Canadensis Provancher, 1879. Nat. Canad. 11: 119. ♀.
Taxonomy: Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 156.

reticulatum (Cresson). Transcont. in Transit., U. Austr., and L. Austr. Zones; Mexico.
Trachynotus reticulatus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 285. ♂.

Genus NEOGREENEIA Viereck

Neogreeneia Viereck, 1912. U. S. Natl. Mus. Proc. 42: 641.
Type: ***Neogreeneia picticornis*** Viereck. Orig. desig.

picticornis Viereck. Gulf and Atlantic States north to N. Y.
Neogreeneia picticornis Viereck, 1912. U. S. Natl. Mus. Proc. 42: 641. ♀.

Subtribe OPHIONELLINA

Genus OPHIONELLUS Westwood

Pharsalia Cresson, 1872. Amer. Ent. Soc. Trans. 4: 177. Preocc.
Type: ***Pharsalia texana*** Cresson. Desig. by Viereck, 1914.
Ophionellus Westwood, 1874. Thesaurus Ent. Oxon., p. 128, pl. 24, fig. 3.
Type: ***Ophionellus fragilis*** Westwood. Monob.
Hymenopharsalia Morley, 1913. Rev. Ichn. Brit. Mus. v. 2, p. 97. N. name for *Pharsalia*.
Parophionellus Brues and Richardson, 1913. Amer. Mus. Nat. Hist. Bul. 32: 495. N. name for *Pharsalia*.
Revision: Cushman, 1922. U. S. Natl. Mus. Proc. 60 (21): 14–20.

The species occur among weeds and shrubbery in dry or desert habitats.

bridwelli (Cushman). Md., Va., S. C. U. Austr. and L. Austr. Zones.
Hymenopharsalia bridwelli Cushman, 1922. U. S. Natl. Mus. Proc. 60 (21): 19. ♀.

foutsi (Cushman). Que., Maine, Mass., N. Y., Pa., Md., Mont. Hosts: Gelechiid on *Salix; Episimus argutanus* (Clem.).
Hymenopharsalia foutsi Cushman, 1922. U. S. Natl. Mus. Proc. 60 (21): 18. ♀.

texanus (Cresson). S. C., Ga., Kans., Tex., N. Mex., Calif.; Mexico.
Pharsalia texana Cresson, 1872. Amer. Ent. Soc. Trans. 4: 177. ♀.

virginiensis (Cresson). N. Y., Md., D. C., W. Va., Va., S. C.
Pharsalia virginiensis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 177. "♂"= ♀.

Subtribe OPHIOPTERINA

Genus OPHIOPTERUS Brullé

Ophiopterus Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 153.
Type: *Ophioterus coarctatus* Brullé. Monob.

cincticornis (Cresson). D. C., Ill., S. C., Tex.; Cuba, Mexico.
Trachynotus cincticornis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 49. ♂ ♀.
Ophiopterus ferrugineus Cresson, 1873. Acad. Nat. Sci. Phila. Proc. 25: 380. ♀.
Nototrachys? annulicornis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 422. ♀.
Taxonomy: Hooker, 1912. Amer. Ent. Soc. Trans. 38: 94.

Subtribe GRAVENHORSTIINA

Genus TRICHOMMA Wesmael

Trichomma Wesmael, 1850. Acad. Sci. Belg. Bul. 16: 119, 137.
Type: *Anomalon (Trichomma) fulvidens* Wesmael. Monob.

maceratum (Cresson). Calif. Host: *Etiella zinckenella* (Treit.).
Anomalon maceratum Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 368. ♂.
Trichomma granitellae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 645. ♂. N. syn.
Trichomma epischniae Viereck, 1912. U. S. Natl. Mus. Proc. 42: 645. ♀.

reticulatum Davis. Maine, N. Y., N. J., Ohio, Mich., Mo., B. C. Hosts: *Melissopus latiferreanus* (Wlsm.); *Canarsia ulmiarrosorella* Clem.; *Salebria semiobscurella* Hulst.
Trichomma reticulata Davis, 1898. Amer. Ent. Soc. Trans. 24: 361. ♀.

Genus APHANISTES Foerster

Aphanistes Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 145.
Type: *Anomalon bellicosum* Wesmael. Desig. by Viereck, 1914.

hyalinus (Norton). Maine and Que. to N. C., west to Ill. Hosts: *Datana contracta* Wlkr.; *Schizura concinna* (A. and S.); *Symmerista albifrons* (A. and S.); *Phosphila turbulenta* Hbn.; *Halisidota caryae* (Harr.).
Anomalon hyaline Norton, 1863. Ent. Soc. Phila. Proc. 1: 361. ♀.
Anomalon nigro-rufus Norton, 1863. Ent. Soc. Phila. Proc. 1: 361. ♀.
Anomalon basilicon Davis, 1898. Amer. Ent. Soc. Trans. 24: 359. ♀.
Anomalon edemae Davis, 1898. Amer. Ent. Soc. Trans. 24: 360. ♂ ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 147.

puparum (Ashmead). Calif. (Alameda).
Agrypon puparum Ashmead, 1890. U. S. Natl.. Mus. Proc. 12: 424. ♀.

Genus BARYLYPA Foerster

Barylypa Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 156.
Type: *Anomalon (Barylypa) genalis* Thomson. Desig. by Viereck, 1914.

elongata (Davis). Mich., S. Dak., Alta.
Anomalon elongatum Davis, 1898. Amer. Ent. Soc. Trans. 24: 357. ♂ ♀.
Anomalon bipartitana Davis, 1898. Amer. Ent. Soc. Trans. 24: 358. ♂.

paeneferruginea (Viereck). Kans. (Wallace Co.).
Anomalon paeneferrugineum Viereck, 1905. Kans. Acad. Sci. Trans. 19: 310. ♀.

smithii (Davis). N. J., Ga.
Anomalon smithii Davis, 1898. Amer. Ent. Soc. Trans. 24: 357. ♂.

sulcatus (Provancher). Ont., Vt., R. I., N. Y.
Podogaster sulcatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 90. ♀.

Genus GRAVENHORSTIA Boie

Anomalon of authors, not of Schrank.
Gravenhorstia Boie, 1836. Arch. f. Naturgesch. 2: 42.
Type: *Gravenhorstia picta* Boie. Monob.
Camposcopus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 145.
Type: *Camposcopus aclerivora* Rohwer. Included by Rohwer, 1915.
Erigorgus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 146. N. syn.
Type: *Anomalon (Erigorgus) carinatum* Brischke. Included by Brischke, 1880.
Sympratis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 146.
Type: *Erigorgus ferrugineus* Norton. Included by Viereck, 1917.
Odontopsis Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 150.
Type: *Gravenhorstia picta* Boie. Included by Dalla Torre, 1901.

aclerivorus (Rohwer), n. comb. Maine, R. I., Pa., Mich. Hosts: *Peronea* sp.; *Acrobasis comptoniella* Hulst.
Camposcopus aclerivora Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 226. ♀.

alaskensis (Ashmead), n. comb. Alaska (Yakutat).
Atrometus alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 233. ♂ ♀.

ambigua (Norton), n. comb. Mass.
Anomalon ambiguus Norton, 1863. Ent. Soc. Phila. Proc. 1: 362. ♀.

cerinops (Gravenhorst), n. comb. Europe; ?Greenland.
Anomalon cerinops Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 658. ♂ ♀.
Ophion (Anomalon) pubescens Zetterstedt, 1840. Ins. Lapponica, p. 393. ♂.
Taxonomy: Lundbeck, 1897 (1896). Nat. For. København Vidensk. Medd., p. 235.

curtus (Norton), n. comb. Del., Maine, Ont., Mich., S. Dak., Mont., Alta., Mo., Kans., Colo., Tex.
Anomalon curtus Norton, 1863. Ent. Soc. Phila. Proc. 1: 362. ♂.

edwardsii (Cresson), n. comb. B. C.
Anomalon Edwardsii Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 367. ♀.

eureka (Ashmead), n. comb. S. Dak., Mont., Colo., B. C., Wash., Calif.
Anomalon? eureka Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 423. ♀.

ferruginea (Norton), n. comb. Ill., Tex., Tenn., Ga.
Anomalon ferrugineus Norton, 1863. Ent. Soc. Phila. Proc. 1: 363. ♀.

fuliginosa (Davis), n. comb. Mich., N. J., Kans.
Anomalon fuliginosus Davis, 1898. Amer. Ent. Soc. Trans. 24: 356. ♀.

luteopecta (Norton), n. comb. Conn., N. Y., Mich., N. C.
Anomalon luteo-pectus Norton, 1863. Ent. Soc. Phila. Proc. 1: 363. ♂.

magniceps (Cresson), n. comb. Tex.
Anomalon magniceps Cresson, 1872. Amer. Ent. Soc. Trans. 4: 170. ♀.

propinqua (Cresson), n. comb. Colo.
Anomalon propinquum Cresson, 1865. Ent. Soc. Phila. Proc. 4: 284. ♂.

provancheri (Dalla Torre), n. comb. Que., N. H., N. Y., N. C.
Anomalon unicolor Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 82. ♀. Preocc.
Anomalon provancheri Dalla Torre, 1901. Cat. Hym., v. 3, p. 169. N. name.

rotunda (Davis), n. comb. Kans. (Lawrence).
Anomalon rotundus Davis, 1898. Amer. Ent. Soc. Trans. 24: 360. ♂.

rufula (Provancher), n. comb. Que., Ont., N. H., Mass., Md., Va., Ind.
Anomalon rufulum Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 80. ♀.

semirufa (Norton), n. comb. Atlantic to 100° W. in Transit. and U. Austr. Zones.
Anomalon semi-rufus Norton, 1863. Ent. Soc. Phila. Proc. 1: 362. ♀.

suburbis (Davis), n. comb. Idaho (Julietta).
Anomalon suburbe Davis, 1898. Amer. Ent. Soc. Trans. 24: 358. ♂ ♀.

xanthopsis (Ashmead), n. comb. Mont., Colo., Calif.
Anomalon xanthopsis Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 423. ♂.

Genus LABRORYCHUS Foerster

Labrorychus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 146.
Type: (*Labrorychus anaitidis* Szépligeti)=[*Anomalon*] *tenuicornis* (Gravenhorst). Desig. by Viereck, 1914.

aestivalis Viereck. Mass., N. Y., Md., Va. U. Austr. Zone. Host: *Archips fervidana* (Clem.).
Labrorychus aestivalis Viereck, 1921. Psyche 28: 79. ♀.

alpinus (Davis). N. Y., Ont., Mich., Sask., Idaho, Colo.
Anomalon alpinus Davis, 1898. Amer. Ent. Soc. Trans. 24: 360. ♀.

analis (Say). Que. and Maine south to Md., west to Mich. and Ind. Hosts: *Malacosoma americanum* (F.); *M. disstria* Hbn.; *Hemerocampa leucostigma* (A. and S.); *Ichthyura inclusa* Hbn.; *Cycnia tenera* Hbn.
Ophion analis Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 75. ♀.
Biology: Fiske, 1903. N. H. Agr. Expt. Sta. Tech. Bul. 6: 208–209.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 145.
Taxonomy: Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 168.

borealis (Ashmead). B. C. (Fort McLeod).
Agrypon boreale Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 424. ♀.

chlamidatus (Provancher). Que. (Cap Rouge).
Anomalon chlamidatum Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 82. ♀.

filiformis (Provancher). Que. (Bécancour).
Anomalon filiforme Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 83. ♂ ♀.

melleus (Cresson). R. I., Md., Va., Tex. Overgrown fields.
Anomalon melleum Cresson, 1872. Amer. Ent. Soc. Trans. 4: 171. ♀.

metallicus (Norton). Mass., R. I., Mich.
Anomalon metallicus Norton, 1863. Ent. Soc. Phila. Proc. 1: 364. ♀.

prismaticus (Norton). Mass., Conn.
Anomalon prismaticus Norton, 1863. Ent. Soc. Phila. Proc. 1: 364. ♀.

pseudargioli (Howard). Mass., R. I., Conn., W. Va. Hosts: *Lycaenopsis pseudargiolus* (Bdvl. and Lec.); *Strymon melinus* (Hbn.).
Anomalon pseudargioli Howard, 1889. *In* Scudder, Butterflies of East. U. S., v. 3, p. 1881. ♀.

Genus ATROMETUS Foerster

Atrometus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 146.
Type: *Atrometus insignis* Foerster. Desig. by Viereck, 1914.

clavipes (Davis). Atlantic to Cont. Divide in Transit. Zone. Hosts: *Psilocorsis* sp.; *Acleris variana* (Fern.); *Grapholitha molesta* (Busck); *Spilonota ocellana* (D. and S.).
Anomalon clavipes Davis, 1898. Amer. Ent. Soc. Trans. 24: 359. ♂.

evetrivorus (Rohwer). N. Mex.
Podogaster evetrivorus Rohwer, 1914. Ent. Soc. Wash. Proc. 16: 142. ♂ ♀.

praediscae (Ashmead). Mo., Va. Host: "*Paedisca*" sp.
Argypon (!) *praediscae* Ashmead, 1890. Amer. Ent. Soc. Trans. 23: 190. ♂ ♀.

Unplaced Species of Gravenhorstiina

The authors have been unable to make a satisfactory generic placement of the following species of Gravenhorstiina.

Anomalon apicale (Cresson). Colo., Kans.
Cremastus fulvescens var. ***apicalis*** Cresson, 1865. Ent. Soc. Phila. Proc. 4: 286. ♀.
Cremastus fulvescens var. ***seminiger*** Cresson, 1865. Ent. Soc. Phila. Proc. 4: 286. ♂ ♀.
Anomalon fulvescens var. ***hemimelas*** Viereck, 1905. Kans. Acad. Sci. Trans. 19: 310. ♀.

Anomalon clavatum Davis. S. C., Ga. U. Austr. Zone.
Anomalon clavatum Davis, 1898. Amer. Ent. Soc. Trans. 24: 357. ♀.

Anomalon exile Provancher. Que. to N. C., west to Mich. Hosts: Published records include *Acrobasis rubrifasciella* Pack.; *Malacosoma* sp.; *Nygmia phaeorrhea* (Don.).
Anomalon exile Provancher, 1874. Nat. Canad. 6: 175. ♀.
Biology: Fiske, 1903. N. H. Agr. Expt. Sta. Tech. Bul. 6: 208–209.—Howard and Fiske, 1911. U. S. Dept. Agr. Bur. Ent. Bul. 91: 144, 147–149.

Anomalon fulvescens (Cresson). Colo., Ariz.
Cremastus fulvescens Cresson, 1865. Ent. Soc. Phila. Proc. 4: 285. ♂ ♀.

Anomalon orbitale Cresson. Tex., Colo.
Anomalon orbitalis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 170. ♂.

Anomalon pallitarse Cresson. N. Y., Del., W. Va., S. C., Tex. U. Austr. Zone. Host: *Cirrophanus triangulifer* Grote.
Anomalon pallitarse Cresson, 1872. Amer. Ent. Soc. Trans. 4: 170. ♂.
Anomalon palliditarse Dalla Torre, 1901. Cat. Hym., v. 3, p. 168. Emend.

Anomalon verbosum Cresson. Calif.
Anomalon verbosum Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 368. ♂ ♀.

Cremastus nigricans Cresson. Colo.
Cremastus fulvescens var. ***nigricans*** Cresson, 1865. Ent. Soc. Phila. Proc. 4: 286. ♀.

Subtribe THERIONINA

Genus THERION Curtis

Therion Curtis, 1829-30. Guide Brit. Ins., (4), p. 101.
Type: ***Ichneumon circumflexus*** Linnaeus. Desig. by Curtis, 1829.
Therium Agassiz, 1846. Nom. Zool., Index Univ., p. 368. Emend.
Exochilum Wesmael, 1850. Acad. Sci. de Belg. Bul. 16: 119, 122.
Type: ***Ichneumon circumflexus*** Linnaeus. Monob.
Key to species: Dreisbach, 1947. N. Y. Ent. Soc. Jour. 55: 202–203.

californicum (Cresson). Calif.
Anomalon californicum Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 367. ♀.
Heteropelma longipes Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., pp. 120, 363. ♂.
Anomalon simile Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 423. ♀.

circumflexum (Linnaeus). Transcont. in Canad. and Transit. Zones; Europe. Host: ?*Acronicta hesperida* Sm.
Ichneumon circumflexus Linnaeus, 1758. Syst. Nat., ed. 10, v. 1, p. 566.
Exochilum occidentale Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 366. ♀.
Anomalon nigrum Provancher, 1879. Nat. Canad. 11: 142. ♂ ♀.
Morphology: Peck, 1937. Canad. Jour. Res. Sect. D, Zool. Sci. 15: 247, 251.

confusum (Ashmead). D. C., N. C., S. C., Tex. Hosts: *Acronicta americana* (Harr,); *A. hastulifera* (A. and S.).
Schizoloma confusa Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 426. ♀.
Exochilum acronyctae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 190. ♀.

fuscipenne (Norton). Transcont. in Canad. and Transit. Zones. Hosts: *Acronicta americana* (Harr.); *A. hastulifera* (A. and S.); *A. hesperida* Sm.; *A. impressa* Wlkr.; *Merolonche lupini* Grote; *Estigmene acrea* (Drury).a

Exochilum fuscipennis Norton, 1863. Ent. Soc. Phila. Proc. 1: 359. ♀.

Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 147.

morio (Fabricius). Transcont. in Transit. and U. Austr. Zones. Hosts: *Cycnia inopinata* (Hy. Edw.); *Diacrisia virginica* (F.); *Estigmene acrea* (Drury); *Halisidota maculata* (Harr.); *Hyphantria cunea* (Drury).

Ichneumon morio Fabricius, 1781. Species Insectorum, v. 1, p. 436.

Ophion mundus Say, 1836. Boston Jour. Nat. Hist. 1: 239. ♂.

Anomalon flavipes Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 170. ♂ ♀.

Biology: Sanborn, 1863. Sec. Mass. Bd. Agr. Ann. Rpt. 10: 169.—Kirkland, 1893. Canad. Ent. 25: 312.—Tothill, 1922. Canad. Dept. Agr. Bul. (n. s.) 3: 59–74.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 147.

Morphology: Tothill, 1922. Canad. Dept. Agr. Bul. (n. s.) 3: 59–74.—Snodgrass, 1941. Smithsn. Inst. Misc. Coll. 99, No. 14: 33, 34.

Taxonomy: Morley, 1909. Ent. 42: 136.

neglectum (Morley). N. S., Hudson Bay.

Exochilum neglectum Morley, 1913. Rev. Ichn. Brit. Mus., v. 2, p. 76. ♂ ♀.

nigripes Dreisbach. N. Y., Pa., N. J., Mich. Host: *Euthisanotia grata* (F.).

Therion nigripes Dreisbach, 1947. N. Y. Ent. Soc. Jour. 55: 201. ♂ ♀.

nigrovarium (Brullé). "N. Amer."

Anomalon nigrovarium Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 172. ♀.

petiolatum (Davis). Maine, N. Y., Mich., Wis., S. Dak.

Exochilum petiolatum Davis, 1898. Amer. Ent. Soc. Trans. 24: 356. ♂ ♀.

sassacus Viereck. N. B. and Ont. south to Va. Hosts: *Cycnia inopinata* (Hy. Edw.); *C. tenera* Hbn.; *Hyphantria cunea* (Drury).

Therion sassacus Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 287. ♀.

Therion waccagum Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 287. ♂.

Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 148.

tenuipes (Norton). Conn., Mass., N. Y., N. C., S. C. U. Austr. and L. Austr. Zones.

Exochilum tenuipes Norton, 1863. Ent. Soc. Phila. Proc. 1: 360. ♀.

texanum (Ashmead). Atlantic to 100° W. in U. Austr. and L. Austr. Zones. Flies around *Smilax*.

Exochilum texanum Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 426. ♂.

varicolor (Viereck). Vt., N. Y., Pa., Md., N. Mex.

Exochilum varicolor Viereck, 1903. Amer. Ent. Soc. Trans. 29: 89. ♂.

verticale (Morley). Husdon Bay.

Exochilum verticale Morley, 1913. Rev. Ichn. Brit. Mus. v. 2, p. 78. ♀.

Genus HETEROPELMA Wesmael

Heteropelma Wesmael, 1850. Acad. Sci. Belg. Bul. 16: 119, 120.
Type: ***Anomalon (Heteropelma) calcator*** Wesmael. Monob.

datanae Riley. Atlantic to 100° W. in U. Austr. and L. Austr. Zones. Host: *Datana integerrima* G. and R.

Heteropelma datanae Riley, 1888. U. S. Dept. Agr. Insect Life 1: 177. ♀.

Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 145.

Taxonomy: Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 285. ♀.

fulvicorne Townes. Atlantic to 100° W. in Transit. and U. Austr. Zones. Hosts: *Datana contracta* Wlkr., *D. integerrima* G. and R.; *D. ministra* (Drury); *D. perspicua* G. and R.

Anomalon flavicorne Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 171. ♀. Preocc.

Heteropelma fulvicorne Townes, 1945. Amer. Ent. Soc. Mem. 11: 729. N. name.
Taxonomy: Howard, 1902. The Insect Book, pl. 10, fig. 18.—Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 285.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 145.

Tribe OPHIONINI

Members of this tribe are parasitic on larger caterpillars, except that *Ophion bifoveolatus* is known to parasitize larvae of *Phyllophaga* (Scarabaeidae). Species of *Ophion* and *Enicospilus* are nocturnal or crepuscular and frequently are attracted to lights.

Revision of genera of world: Cushman, 1947. U. S. Natl. Mus. Proc. 96: 417–482.
Revision: Hooker, 1912. Amer. Ent. Soc. Trans. 38: 1–176. Includes Neotropic species also.

Genus THYREODON Brullé

Thyreodon Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 150.
Type: ***Thyreodon cyaneus*** Brullé. Desig. by Hooker, 1912.
Oleter Shestakov, 1926. Konowia, 5: 259.
Type: (***Oleter selenaction*** Shestakov)=***Thyreodon laticinctus*** Cresson. Monob.
Revision: Hooker, 1912. Amer. Ent. Soc. Trans. 38: 106–133.

atricolor atricolor (Olivier). Atlantic to Man., Minn., Iowa, and Mo. in Transit., U. and L. Austr. Zones. Hosts: *Lapara coniferarum* (A. and S.); *Paonias excaecatus* (A. and S.) Parasite: *Epiencyrtus thyreodontis* (Ashm.).
Ophion atricolor Olivier, 1811. Encycl. Méthod. Ins., v. 8, p. 511. ♀.
Thyreodon brullei Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 287. N. name for *T. morio* of authors.
Biology: Dimmock, 1884. Psyche 4: 282.—Dimmock, 1898. Ent. Soc. Wash. Proc. 4: 156.—Hooker, 1912. Amer. Ent. Soc. Trans. 38: 118.

atricolor flavicorne (Say). Minn., Iowa, Mo., Kans., Ariz.
Anomalon flavicornis Say, 1823. West. Quart. Rptr. 2: 73.
Thyreodon snowi Viereck, 1905. Kans. Acad. Sci. Trans. 19: 313. ♀.
Thyreodon morio transitionalis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 225. ♀.

fernaldi Hooker. Colo., Ariz., Mexico.
Thyreodon fernaldi Hooker, 1912. Amer. Ent. Soc. Trans. 38: 131. ♂ ♀.

Genus RHYNCHOPHION Enderlein

Rhynchophion Enderlein, 1912. Zool. Anz. 39: 630.
Type: ***Rhynchophion odontandroplax*** Enderlein. Monob.

flammipennis (Ashmead). Ariz.; Mexico, Ecuador.
Thyreodon flammipennis Ashmead, 1894. Calif. Acad. Sci. Proc. (2) 4: 125. ♀.

Genus OPHION Fabricius

Ophion Fabricius, 1798. Sup. Ent. System., pp. 210, 235.
Type: ***Ichneumon luteus*** Linnaeus. Desig. by Curtis, 1835.
Paniscus Schrank, 1802. Fauna Boica, v. 2, pt. 2, p. 316.
Type: ***Ichneumon luteus*** Linnaeus. Monob.
Neophion Morley, 1912. Rev. Ichn. Brit. Mus., v. 1, pp. 4, 30.
Type: ***Neophion crassus*** Morley. Desig. by Viereck, 1914.
Revision: Hooker, 1912. Amer. Ent. Soc. Trans. 38: 21–50.

ancyloneura Cameron. Atlantic to 100° W. in U. Austr. and L. Austr. Zones, and south to Argentina.
Ophion ancyloneura Cameron, 1886. Biol. Cent.-Amer., Hym. v. 1, p. 294. ♀.

bifoveolatus Brullé. Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: *Phyllophaga fusca* (Froel.).
Ophion bifoveolatus Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 138.
Ophion nigrivarius Provancher, 1874. Nat. Canad. 6: 104. ♂ ♀.
Biology: Forbes, 1907. Ill. Agr. Expt. Sta. Bul. 116: 473.—Forbes, 1908. State Ent. Ill. Rpt. 24: 161.—Davis, 1919. Ill. Nat. Hist. Survey Bul. 13: 85.

bilineatus Say. Ill. An extensive literature built around this name refers to a number of misdetermined species of *Ophion*. The identity of the true *O. bilineatus* is unknown.
Ophion bilineatus Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 75.

coloradensis (Felt). Colo.
Genophion coloradensis Felt, 1904. N. Y. State Mus. Bul. 76: 124. ♀.

crassus (Morley). N. S.
Neophion crassus Morley, 1912. Rev. Ichn. Brit. Mus., v. 1, p. 31. ♂.

elongatus Hooker. Colo.
Ophion bilineatus elongatus Hooker, 1912. Amer. Ent. Soc. Trans. 38: 30. ♀.

idoneus Viereck. Atlantic to 100° W. in Transit. and U. Austr. Zones. Early spring.
Ophion idoneum Viereck, 1905. Kans. Acad. Sci. Trans. 19: 312. ♂.

luteus (Linnaeus). Europe. Recorded from various Nearctic localities, probably incorrectly, by Morley, 1912, Hendriksen and Lundbeck, 1918, and Eidmann, 1935.
Ichneumon luteus Linnaeus, 1758. Syst. Nat., ed. 10, v. 1, p. 566.

magniceps Hooker. South. Calif.
Ophion abnormis magniceps Hooker, 1912. Amer. Ent. Soc. Trans. 38: 36. ♂ ♀.

novascotiae (Morley). N. S.
Eurycamptus nova-scotiae Morley, 1912. Rev. Ichn. Brit. Mus., v. 1, p. 29. ♀.

pallidus Cockerell. Colo. (Saguache).
Ophion bilineatus var. *pallida* Cockerell, 1889. Sci. Gossip 25: 92.

slossonae Davis. Atlantic to 100° W. in Transit. and U. Austr. Zones. Host: *Acronicta americana* (Harr.).
Ophion slossonae Davis, 1893. Ent. News 4: 135. ♂.
Ophion ferruginipennis Felt, 1904. N. Y. State Mus. Bul. 76: 122. ♀.

stramineus Taschenberg. "N. Amer."
Ophion stramineus Taschenberg, 1875. Ztschr. Gesam. Naturw. Halle 46: 431. ♀.

tityri Packard. Mass., N. Y., N. J., Mich. Host: *Proteides clarus* (Cram.).
Ophion tityri Packard, 1881. Boston Soc. Nat. Hist. Proc. 21: 19. ♂.

Genus SIMOPHION Cushman

Simophion Cushman, 1947. U. S. Natl. Mus. Proc. 96: 446.
Type: *Simophion excarinatus* Cushman. Orig. desig.

excarinatus Cushman. Ariz. Sonor. desert.
Simophion excarinatus Cushman, 1947. U. S. Natl. Mus. Proc. 96: 447. ♀.

Genus TROPHOPHION Cushman

Trophophion Cushman, 1947. U. S. Natl. Mus. Proc. 96: 447.
Type: *Trophophion tenuiceps* Cushman. Orig. desig.

tenuiceps Cushman. Ariz., Calif.
Trophophion tenuiceps Cushman, 1947. U. S. Natl. Mus. Proc. 96: 449. ♂ ♀.

Genus CLISTORAPHA Cushman

Clistorapha Cushman, 1947. U. S. Natl. Mus. Proc. 96: 450.
Type: *Ophion subfuliginosus* Ashmead. Orig. desig.

subfuliginosus (Ashmead). Ariz.; Mexico (Baja Calif.). Sonor. desert.
Ophion subfuliginosus Ashmead, 1894. Calif. Acad. Sci. Proc. (2) 4: 126. ♂ ♀.
Taxonomy: Cushman, 1947. U. S. Natl. Mus. Proc. 96: 451.

Genus BOETHONEURA Cushman

Boethoneura Cushman, 1947. U. S. Natl. Mus. Proc. 96: 451.
Type: *Boethoneura arida* Cushman. Orig. desig.

arida Cushman. Nev., Ariz.; Mexico.
Boethoneura arida Cushman, 1947. U. S. Natl. Mus. Proc. 96: 452. ♀.

Genus GENOPHION Felt

Genophion Felt, 1904. N. Y. State Mus. Bul. 76: 123.
Type: (*Genophion gilletti* Felt)=[*Ophion*] *costalis* (Cresson). Orig. desig.

costalis (Cresson). Colo., Calif.
Ophion costale Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 366. ♀.
Genophion gilletti Felt, 1904. N. Y. State Mus. Bul. 76: 123. ♀.

Genus CHILOPHION Cushman

Chilophion Cushman, 1947. U. S. Natl. Mus. Proc. 96: 454.
Type: *Ophion abnormum* Felt. Orig. desig.

abnormus (Felt). Kans., Colo.
Ophion abnormum Felt, 1904. N. Y. State Mus. Bul. 76: 121. ♀.
Eremotylus felti Viereck, 1905. Kans. Acad. Sci. Trans. 19: 312. ♀.
Taxonomy: Cushman, 1947. U. S. Natl. Mus. Proc. 96: 455.

Genus ENICOSPILUS Stephens

Enicospilus Stephens, 1835. Ill. Brit. Ent., v. 7, p. 126, pl. 10, fig. e.
Type: *Ophion merdarius* Gravenhorst. Monob.
Henicospilus Agassiz, 1846. Nomen. Zool., Index Univ., p. 138. Emend.
Allocamptus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 150.
Type: *Ophion undulatus* Gravenhorst. Included by Thomson, 1888.
Dispilus Kriechbaumer, 1894. Berlin. Ent. Ztschr. 39: 309.
Type: *Ophion (Dispilus) natalensis* Kriechbaumer. Monob.
Pleuroneurophion Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 86.
Type: *Pleuroneurophion hawaiensis* Ashmead. Orig. desig.
Banchogastra Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 87.
Type: *Banchogastra nigra* Ashmead. Orig. desig.
Cymatoneura Kriechbaumer, 1901. Ztschr. System. Hym. Dipt. 1: 22, 74.
Type: *Ophion undulatus* Gravenhorst. Desig. by Viereck, 1912.
Pterospilus Kriechbaumer, 1901. Ztschr. System. Hym. Dipt. 1: 156. Preocc.
Type: *Ophion (Enicospilus) dubius* Tosquinet. Desig. by Viereck, 1914.
Trispilus Kriechbaumer, 1901. Ztschr. System. Hym. Dipt. 1: 156.
Type: *Ophion (Enicospilus) trimaculatus* Tosquinet. Monob.
Leptophion Cameron, 1901. Zool. Soc. London Proc. 1: 227.
Type: *Leptophion longiventris* Cameron. Monob.
Abanchogastra Perkins, 1902. Ent. Soc. London Trans., p. 141.
Type: *Abanchogastra debilis* Perkins. Monob.
Dicamptus Szépligeti, 1905. *In* Wytsman, Gen. Ins., v. 34, p. 28.
Type: *Dicamptus giganteus* Szépligeti. Monob.
Metophion Szépligeti, 1905. *In* Wytsman, Gen. Ins., v. 34, p. 28.
Type: *Metophion bicolor* Szépligeti. Monob.
Ceratospilus Szépligeti, 1905. *In* Wytsman, Gen. Ins., v. 34, p. 28.
Type: *Ceratospilus biroi* Szépligeti. Monob.
Atoponeura Szépligeti, 1905. *In* Wytsman, Gen. Ins., v. 34, p. 34.
Type: (*Atoponeura concolor* Szépligeti)=*Enicospilus atoponeurus* Cushman.
Ophiomorpha Szépligeti, 1905. *In* Wytsman, Gen. Ins., v. 34, p. 34. Preocc

Type: (***Ophiomorpha curvinervis*** Cameron)=[***Ophion***] ***cameronii*** (Dalla Torre). Desig. by Hooker, 1912.

Cryptocamptus Brethes, 1909. Anal. Mus. Nac. Buenos Aires 19: 230.
Type: ***Ophion undulatus*** Gravenhorst. Monob.

Eremotyloides Perkins, 1914. Ent. Soc. London Trans., p. 530.
Type: ***Eremotylus orbitalis*** Ashmead. Monob.

Amesospilus Enderlein, 1918. Beitr. Landf. Sudwestafrik 1: 222.
Type: ***Amesospilus herero*** Enderlein. Monob.

Schizospilus Séyrig, 1936. Mus. Hist. Nat. Paris. Mém. 4: 79.
Type: ***Schizosphilus divisus*** Séyrig. Orig. desig.

Revision: Hooker, 1912. Amer. Ent. Soc. Trans. 38: 52–92, 135–158.

americanus (Christ). Transcont. from Transit. to the Tropical Zone; Mexico. In literature usually under the erroneous names *Ophion macrurus* and *Eremotylus macrurus*. Hosts: *Automeris io* (F.); *Calosamia promethea* (Drury); *Samia walkeri advena* Pack.; *Rothschildia orizaba* (West.); *Platysamia cecropia* (L.); *P. columbia* (Sm.); *P. euryalus* (Bdvl.); *Telea polyphemus* (Cram.); *Tropaea luna* (L.). Parasites: *Gelis tenellus* (Say.); *Theronia atalantae* (Poda); *Lycogaster pullata* Shuck.

Ichneumon luteus americanus Christ, 1791. Naturgesch. Classif.Nomencl. Ins. p. 358, pl. 37, fig. 5.

Ophion cecropiae Sanborn, 1863. Sec. Mass. Bd. Agr. Ann Rpt. 10: 169.

Eremotylus Druryi Kriechbaumer, 1901. Ztschr. System. Hym. Dipt. 1: 152.

Biology: Westwood, 1837. *In* Drury, Illus. Exotic Ent., ed. 2., v. 1, p. 92.—Emmons, 1854. Nat. Hist. N. Y. (pt. 5) 5: 196.—Scudder, 1863. Boston Soc. Nat. Hist. Proc. 9: 188–189.—Trouvelot, 1868. Amer. Nat. 1: 89.—Smith, 1868. Ent. Soc. London Trans. (3) 5: Proc. xxxiii.—Riley, 1870. Amer. Ent. 2: 100–101.— Riley, 1872. Ins. Mo. Ann. Rpt. 4: 107–108.—Saunders, 1875. Ent. Soc. Ontario Ann. Rpt. 5: 25.—Saunders, 1876. Ent. Soc. Ontario Ann. Rpt. 6: 42.—Worthington, 1876. Canad. Ent. 8: 220.—Worthington, 1877. Canad. Ent. 9: 60.—Riley, 1880. Amer. Ent. 3: 134.—Saunders, 1882. Canad. Ent. 14: 43.—Saunders, 1883. Ins. Injurious to Fruits, pp. 78, 175, 212.—Fyles, 1894. State Ent. Minn. Ann Rpt. 25: 55.—Webster, 1897. Ohio Agr. Expt. Sta. Bul. 86: 33.—Eliot and Soule, 1902. Caterpillars and Their Moths, p. 56.—Felt, 1904. N. Y. State Mus. Bul. 76: 101–104.—Smith, 1908. Jour. Econ. Ent. 1: 294–297.—Hooker, 1912. Amer. Ent. Soc. Trans. 38: 148.—Essig, 1926. Ins. of Western N. Amer., pp. 792, 793.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 144.

appendiculatus (Felt). N. C., S. C., Ala., Fla.; West Indies, Mexico, and south to Brazil.

Ophion (Enicospilus) appendiculatum Felt, 1902. Psyche 9: 308.

arcuatus (Felt). Atlantic west to Ill., in U. Austr. Zone. Hosts: *Heterocampa guttivitta* (Wlkr.); *Schizura concinna* (A. and S.); *Scoliopteryx libatrix* (L.).

Ophion (Enicospilus) arcuatum Felt, 1902. Psyche 9: 307.

Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 144.

concolor (Cresson). Fla.; Cuba.

Ophion concolor Cresson, 1865. Ent. Soc. Phila. Proc. 4: 56. ♀.

cubensis (Norton). Fla.; Cuba.

Ophion cubensis Norton, 1863. Ent. Soc. Phila. Proc. 1: 358. ♀.

cubitalis (Morley). "Fla., Jamaica, Mexico."

Allocamptus cubitalis Morley, 1912. Rev. Ichn. Brit. Mus. v. 1, p. 25. ♀.

glabratus (Say). Transcont. in U. Austr. and L. Austr. Zones. Hosts: *Diacrisia virginica* (F.); *Ecpantheria deflorata* (F.); *Halisidota maculata* (Harr.); *Hyphantria cunea* (Drury); *Isia isabella* (A. and S.).

Ophion glabratus Say, 1836. Boston Jour. Nat. Hist. 1: 239.

Eremotylus arctiae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 192. ♂ ♀.

purgatus (Say). Transcont. in Transit., U. Austr., L. Austr., and Tropical Zones; south to Argentina. Probably synonymous with the European [*Ophion*] *merdarius* (Gravenhorst). Hosts: *Drepana bilineata* (Pack); *Heterocampa guttivitta* (Wlkr.); *Schizura concinna* (A. and S.); *S. unicornis* (A. and S.); *Alabama argillacea* (Hbn.); *Ceramica picta* (Harr.); *Leucania latiuscula* (H.-S.); *L. multilinea* (Wlkr.); *Cirphis unipuncta* (Haw.); *Feltia subterranea*

(F.); *Laphygma frugiperda* (A. and S.); *Peridroma margaritosa* (Haw.); *Prodenia ornithogalli* Guen.; *Scoliopteryx libatrix* (L.); *Scotogramma trifolii* (Rott.).

Ophion purgatus Say, 1836. Boston Jour. Nat. Hist. 1: 239.

Ophion lateralis Brullé, 1846. Hist. Nat. Ins. Hym. v. 4, p. 141.

Biology: Riley, 1870. Ins. Mo. Ann. Rpt. 2: 53.—Thomas, 1881. Rpt. on the Noxious and Beneficial Ins. Ill. v. 10, p. 41.—Lugger, 1896. Minn. Agr. Expt. Sta. Bul. 48: 45, 46.—Felt, 1904. N. Y. State Mus. Bul. 76: 108–111.—Hooker, 1912. Amer. Ent. Soc. Trans. 38: 79.—Vickery, 1915. Jour. Econ. Ent. 8: 391, 392.—Hinds and Dew, 1915. Ala. Agr. Expt. Sta. Bul. 186: 87, 89.—Vickery, 1926. Jour. Agr. Res. 32: 1115.—Luginbill, 1928. U. S. Dept. Agr. Tech. Bul. 34: 61–63.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 144.

texanus (Ashmead). N. Y., Ohio, Tex.

Thyreodon texanus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 422. ♂.

Subfamily MESOCHORINAE

All members of this subfamily are believed to be secondary parasites.

Genus CIDAPHUS Foerster

Cidaphus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 149.
Type: ***Cidaphus thuringiacus*** Brauns. Desig. by Viereck, 1914.

Plesiophthalmus Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 170. Preocc.
Type: ***Mesochorus alarius*** Gravenhorst. Included by Brischke, 1880.

Mater Schulz, 1911. Zool. Ann. 4: 22. N. name for *Plesiophthalmus*.

Tetragonalys Morley, 1913. Rev. Ichn. Brit. Mus., v. 2, p. 132.
Type: ***Tetragonalys barbarica*** Morley. Desig. by Morley, 1913.

Plesiophthalmidea Viereck, 1914. U. S. Natl. Mus. Bul. 83: 119.
Type: ***Plesiophthalmus paniscoides*** Ashmead. Orig. desig.

Ophthalmochorus Roman, 1925. Arkiv för Zool. 17 A (4): 29. N. name for *Plesiophthalmus*.

Revision: Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 4–6.

australis Cushman. Que. to Ala.; also B. C.

Cidaphus australis Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 6. ♀.

Cidaphus melleus Walley, 1935. Canad. Ent. 67: 112. ♂ ♀.

occidentalis Cushman. Transcont. in Canad. Zone.

Cidaphus occidentalis Cushman, 1924. U. S. Natl. Mus. Proc. 64 (20): 5. ♀.

Taxonomy: Walley, 1935. Canad. Ent. 67: 111.

paniscoides (Ashmead). N. H., Mass., N. Y., Ont., Pa., Ohio, Md., Va.

Plesiophthalmus paniscoides Ashmead, 1892. Ent. News 3: 107. ♂.

Genus ASTIPHROMMA Foerster

Astiphromma Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 170.
Type: ***Mesochorus scutellatus*** Gravenhorst. Desig. by Morley, 1913.

Astiphrommus Thomson, 1886. Soc. Ent. France Ann. (6) 5: 327.
Type: ***Mesochorus scutellatus*** Gravenhorst. Desig. by Viereck, 1914.

pectorale Ashmead. N. Y., N. C., Tex.

Astiphromma pectoralis Ashmead, 1892. Ent. News 3: 107. ♂.

strenuum (Holmgren). Transcont. in Canad. and Transit. Zones; Europe.

Mesochorus strenuus Holmgren, 1858. Svenska Vetensk. Akad. Handl. 2 (8): 119. ♂ ♀.

Plectiscus pleuralis Provancher, 1875. Nat. Canad. 7: 330. "♀"=♂.

Plectiscus provancheri Dalla Torre, 1901. Cat. Hym., v. 3, p. 24. N. name for *P. pleuralis*.

Mesochorus orcae Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 239. ♂.

Genus MESOCHORUS Gravenhorst

Mesochorus Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 960.
Type: *Mesochorus splendidulus* Gravenhorst. Desig. by Curtis, 1833.
Stictopisthus Thomson, 1886. Soc. Ent. France Ann. (6) 5: 327.
Type: *Mesochorus bilineatus* Thomson. Desig. by Viereck, 1914.

agilis Cresson. Sask., Wash., Colo.
Mesochorus agilis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 266. ♀.
Taxonomy: Cresson, 1872. Canad. Ent. 4: 22.

calais Viereck. N. Y., Conn.
Mesochorus calais Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 280. ♀.

discitergus (Say). Transcont. in Transit. and U. Austr. Zones; Europe. Hosts: *Apanteles congregatus* (Say); *A. melanoscelus* (Ratz.); *A. smerinthi* Ashm.; *Meteorus communis* (Cress.); *Microgaster* sp.; *Microplitis ceratomiae* Riley; *M. croceipes* (Cress.); *M. melianae* Vier.
Cryptus discitergus Say, 1836. Boston Jour. Nat. Hist. 1: 231. ♀.
Mesochorus vitreus Walsh, 1861. Ill. State Agr. Soc. Trans. 4: 364, 368. ♂ ♀.
Mesochorus americanus Cresson, 1872. Canad. Ent. 4: 23. ♀.
Mesochorus obliquus Cresson, 1872. Canad. Ent. 4: 24. ♀.
Mesochorus scitulus Cresson, 1872. Canad. Ent. 4: 24. ♂ ♀.
Mesochorus facialis Bridgman, 1884. Ent. Soc. London Trans. p. 431. ♂ ♀. N. syn.
Mesochorus pulchellus Cook and Davis, 1891. Mich. Agr. Expt. Sta. Bul. 73: 10. ♀.
Mesochorus aprilinus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 195. ♀.
Mesochorus frontalis Ashmead, 1899. Fur Seals and Fur-seal Islands, v. 4, p. 336. ♂.
Mesochorus nigrisignus Viereck, 1911. U. S. Natl. Mus. Proc. 40: 192. ♀.
Mesochorus infernalis Viereck, 1911. U. S. Natl. Mus. Proc. 40: 192. ♂.
Taxonomy: Cushman and Gahan, 1921. Ent. Soc. Wash. Proc. 23: 160.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 18.

diversicolor Viereck. B. C. (Duncan).
Mesochorus diversicolor Viereck, 1912. U. S. Natl. Mus. Proc. 42: 149. ♂ ♀.

electilis Cresson. Tex. (Bosque Co.).
Mesochorus electilis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 171. ♀.

flaviceps Provancher. Que.
Mesochorus flaviceps Provancher, 1879. Nat. Canad. 11: 210. ♀.

hamatus Townes. Mass., N. Y., Pa. Ericaceous shrubs on dry ridges.
Mesochorus basalis Cresson, 1872. Canad. Ent. 4: 22. ♀. Preocc.
Mesochorus hamatus Townes, 1945. Amer. Ent. Soc. Mem. 11: 753. N. name.

iridescens Cresson. Calif.
Mesochorus iridescens Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 369. ♀.

jucundus Provancher. Transcont. in Transit. Zone.
Mesochorus jucundus Provancher, 1883. Nat. Canad. 14: 5. ♀.

kincaidi Ashmead. Alaska (Kukak Bay).
Mesochorus kincaidi Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 238. ♀.

luteipes Cresson. N. J.
Mesochorus luteipes Cresson, 1872. Canad. Ent. 4: 22. ♀.

melleus Cresson. Pa.
Mesochorus melleus Cresson, 1872. Canad. Ent. 4: 24. ♂.

noctivagus Viereck. Kans. (Lawrence).
Mesochorus noctivagus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 303. ♀.

ottawaensis (Harrington). Ont. (Ottawa).
Ischyrocnemis ottawaensis Harrington, 1892. Canad. Ent. 24: 98. ♀.

Taxonomy: Davis, 1897. Amer. Ent. Soc. Trans. 24: 249. ♀.

perniciosus Viereck. Minn. to Alta., south to Colo.
Mesochorus perniciosus Viereck, 1911. U. S. Natl. Mus. Proc. 39: 407. ♀.

pieridicolus (Packard). No locality.
Campoplex pieridicola Packard, 1881. Boston Soc. Nat. Hist. Proc. 21: 20. "♀"=♂.

sylvarum Curtis. Transcont. in Transit. Zone; Europe.
Mesochorus sylvarum Curtis, 1833. Brit. Ent., v. 10, pl. 464.
Mesochorus atriventris Cresson, 1872. Canad. Ent. 4: 21. ♂. N. syn.
Mesochorus politus Provancher, 1883. Nat. Canad. 14: 4. ♀. Preocc.
Mesochorus provancheri Dalla Torre, 1901. Cat. Hym., v. 3, p. 57. N. name for *M. politus*.

tachinae Ashmead. N. H. (Canobie Lake). Host: Larvaevorid.
Mesochorus tachinae Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 168. ♀.

thomsonii Dalla Torre. Greenland; Europe. Recorded from Greenland also as *Mesochorus gibbulus* (misdet.).
Mesochorus nigriceps Thomson, 1885. Soc. Ent. France Ann. (6) 5: 334. ♂. ♀. Preocc.
Mesochorus thomsonii Dalla Torre, 1901. Cat. Hym., v. 3, p. 59. N. name.
Taxonomy: Roman, 1916. Arkiv för Zool. 10 (22): 3. (Misdet. as *M. nigripes*).—Hendriksen and Lundbeck, 1918. Meddel. om Grønland 22: 542.—Roman, 1933. Skrifter om Svalbard og Ishavet 53: 9.

uniformis Cresson. Transcont. in Transit. and U. Austr. Zones.
Mesochorus uniformis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 171. ♀.
Paniscus rufulus Provancher, 1876. Nat. Canad. 8: 328. ♀.
?Mesochorus areolatus Provancher, 1883. Nat. Canad. 14: 5. ♀.

Alphabetic List of Unplaced Species

The generic positions of the following species are uncertain. No authentic specimens have been seen and it has not been possible to identify the species or to reach a conclusion about a generic placement from the descriptions.

Anomalon canadense Provancher. Que.
Anomalon Canadense Provancher, 1874. Nat. Canad. 6: 174. ♂ ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 143.

Anomalon nigritum Norton. Mass.
Anomalon nigritum Norton, 1863. Ent. Soc. Phila. Proc. 1: 363. ♂.

Anomalon rufum Provancher. Que.
Anomalon rufum Provancher, 1874. Nat. Canad. 6: 174. ♀.
Taxonomy: Provancher, 1879. Nat. Canad. 11: 143.

Anomalon vivum Cresson. Oreg.
Anomalon vivum Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 368. ♀.

Asymmictus nigrofrons Davis. Mich. (Agricultural College).
Asymmictus nigrofrons Davis, 1898. Amer. Ent. Soc. Trans. 24: 325. ♀.

Atractodes provancheri Dalla Torre. Que.
Atractodes singularis Provancher, 1876. Nat. Canad. 8: 328. ♂. Preocc.
Atractodes provancheri Dalla Torre, 1902. Cat. Hym., v. 3, p. 723. N. name.

Atractodes rufipes Provancher. Que.
Atractodes rufipes Provancher, 1874. Nat. Canad. 6: 151. ♂ ♀.

Banchus fulvus (Fabricius). "America."
Ichneumon fulvus Fabricius, 1775. Systema Ent., p. 341.
Ichneumon fulvator Thunberg, 1822. Acad. Sci. St. Pétersburg Mém. 8: 260. N. name.
Taxonomy: Fabricius, 1804. Systema Piezatorum, p. 129.

Campoplex arcticus Curtis. Arctic America.
Campoplex? Arcticus Curtis, 1835. *In* Ross, Appendix to the Narrative of a Second Voyage in Search of a North-West Passage . . . 1829–33, p. LXII.
Taxonomy: Walley, 1940. Sci. Agr. 20: 734.

Cratichneumon davisi Bradley. Colo.
Cratichneumon davisi Bradley, 1904. Ztschr. System. Hym. Dipt. 4: 107. ♀.

Crematus piceus Cresson. Tex. (Bosque Co.).
Cremastus piceus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 176. ♀.

Cryptus cinctipes Walsh. ? Ill.
Cryptus cinctipes Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 74. ♂ ♀.

Cryptus rhomboidalis Walsh. ? Ill.
Cryptus rhomboidalis Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 74. ♀.

Cryptus rufifrons Walsh. ? Ill.
Cryptus rufifrons Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 75. ♀.

Cryptus semirufus Brullé. "N. Amer."
Cryptus semi-rufus Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 195. ♀.

Eriborus triannulatus Cameron. Calif. (Santa Clara Co.).
Eriborus? triannulatus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 245. ♂.

Erigorgus lateralis (Brullé). "N. Amer."
Anomalon laterale Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 175. ♀.

Exolytus concamerus Davis. N. H. (Mt. Washington).
Exolytus concamerus Davis, 1898. Amer. Ent. Soc. Trans. 24: 356. ♀.

Habronyx flavistigma Davis. N. Y.
Habronyx? flavistigma Davis, 1898. Amer. Ent. Soc. Trans. 24: 362. ♂.

Hemiteles cincticornis Ashmead Colo. (Cusack) Ranch. Host: *Apanteles laeviceps* Ashm.
Hemiteles cincticornis Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 21. ♀.

Hemiteles clipeator Lundbeck. Greenland.
Hemiteles clipeator Lundbeck, 1897 (1896). Nat. For København Vidensk. Medd., p. 228. ♂.

Hemiteles gastricus Holmgren. Calif.
Hemiteles gastricus Holmgren, 1868. Eug. Resa I, Zool. I, Ins., p. 401. ♀.

Hemiteles texanus Ashmead. Tex.
Hemiteles texanus Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 404. ♀.

Ichneumon assimulator Swederus. N. Amer.
Ichneumon assimulator Swederus, 1787. Svenska Vetensk. Akad. Handl. 8: 280.

Ichneumon astutus Holmgren. Calif.
Ichneumon astutus Holmgren, 1868. Eug. Resa I, Zool. I, Ins., p. 394. ♂.
Taxonomy: Roman, 1910. Ent. Tidskr. 31: 148.

Ichneumon banchiformis Megerle. Ga.
Ichneumon Banchiformis Megerle, 1802. Appendix ad Catalogum Insectorum, Quae Mense Novembris 1802 Vienne Austriae Auctionis Lege Vendita Fuere, p. 16.

Ichneumon georgicus Megerle. Ga.
Ichneumon Georgicus Megerle, 1802. Appendix ad Catalogum Insectorum, Quae Mense Novembris 1802 Vienne Austriae Auctionis Lege Vendita Fuere, p. 16.

Ichneumon lugubrator Gravenhorst. ? Pa.
Ichneumon lugubrator Gravenhorst, 1807. Vergl. Übers. Zool. Syst., p. 256.
Taxonomy: Gravenhorst, 1829. Ichn. Europaea, v. 1, p. 541.—Kriechbaumer, 1875. Stettin. Ent. Ztg. 36: 41.

Ichneumon nigrosignatus Viereck. Ariz. (Oak Creek Canyon).
Ichneumon (Barichneumon) nigrosignatus Viereck, 1905. Kans. Acad. Sci. Trans. 19: 297. ♂.

Ichneumon paradoxus Provancher. Que.
Ichneumon paradoxus Provancher, 1882. Nat. Canad. 13: 306, 325. ♀.

Ichneumon quadripunctatus Provancher. Ont. (Ottawa).
Ichneumon quadri-punctatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 33. ♂.

Jethsura ferruginea Cameron. N. Mex.
Jethsura ferruginea Cameron, 1902. Amer. Ent. Soc. Trans. 28: 374. ♀.

Labrorychus relictus (Fabricius). "North America."
Ophion relictus Fabricius, 1798. Sup. Ent. System., p. 236.

Lampronota breviventris Walsh. ?Ill.
Lampronota breviventris Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 120. ♀.

Lampronota pictiventris Walsh. ?Ill.
Lampronota pictiventris Walsh, 1873. Acad. Sci. St. Louis, Trans. 3: 119. ♂.

Limnerium hospitum (Holmgren). Calif.
Limneria hospita Holmgren, 1868. Eug. Resa I, Zool. I, Ins., p. 416. ♂.

Limnerium illepidum (Cresson). Tex. (Bosque Co.).
Limneria illepida Cresson, 1872. Amer. Ent. Soc. Trans. 4: 172. ♂.

Melanichneumon ferrugator (Swederus). "North America."
Ichneumon ferrugator Swederus, 1787. Svenska Vetensk. Akad. Handl. 8: 280. ♂?, ♀.

Meniscus 4-cinctus Ashmead. Ohio (Catawba Isl.).
Meniscus 4-cinctus Ashmead, 1894. Cincinnati Soc. Nat. Hist. Jour. 17: 50. ♂.
Biology: Webster, 1894. Cincinnati Soc. Nat. Hist. Jour. 17: 37.

Mesoleptus fasciatus Provancher. B. C. (Vancouver Isl.).
Mesoleptus fasciatus Provancher, 1885. Canad. Ent. 17: 116. ♂.

Mesostenus rufotinctus Provancher. Que.
Mesostenus rufotinctus Provancher, 1874. Nat. Canad. 6: 301. ♂.
Taxonomy: Provancher, 1875. Nat. Canad. 7: 268.

Microcryptus alaskensis Ashmead. Alaska (Sitka).
Microcryptus alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 184. ♂.

Opheltoideus johnsoni Ashmead. Locality unknown.
Opheltoideus johnsoni Ashmead, 1900. U. S. Natl. Mus. Proc. 23: 95.
Taxonomy: Cushman, 1942. U. S. Natl. Mus. Proc. 92: 289.

Opisorhyssa flavopicta Kriechbaumer. "Amer. Sept.?"
Opisorhyssa flavopicta Kriechbaumer, 1890. Naturh. Hofmus. Wien Ann. 5: 488. ♀.

Phygadeuon excavatus Provancher. Que.
Phygadeuon excavatus Provancher, 1874. Nat. Canad. 6: 285. ♀.

Phygadeuon plectiscinus Roman. Greenland (Eidi).
Phygadeuon plectiscinus Roman, 1916. Arkiv för Zool. 10 (22): 5. ♂ ♀.

Phygadeuon truncatus Provancher. Ont. (Ottawa).
Phygadeuon truncatus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 53. ♀.

Pseudamblyteles peroratus Cameron. Nev. (Ormsby Co.).
Pseudamblyteles peroratus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 242. ♂.

Trogus atrocoeruleus Cresson. La.
Trogus atrocoeruleus Cresson, 1868. Amer. Ent. Soc. Trans. 2: 92. ♀.
Taxonomy: Cresson, 1877. Amer. Ent. Soc. Trans. 6: 196.

Tryphon obscurus (Cresson). Colo.
Stilpnus obscurus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 259. ♂.
Taxonomy: Cresson, 1868. Amer. Ent. Soc. Trans. 2: 90.

Superfamily CHALCIDOIDEA[16] [17]

The geographical records and host data have been compiled almost entirely from the literature and therefore must include many undetected errors. With few exceptions the host names have been checked by specialists in the Division of Insect Identification, Bureau of Entomology and Plant Quarantine, and to these men I owe much.

Biology: Gahan, 1922. Ent. Soc. Wash. Proc. 24: 33–58 (phytophagy).—Essig, 1926. Ins. of West. No. Amer., pp. 813–851.—Sweetman, 1936. Biol. Control of Ins., pp. 141–166.—Clausen, 1940. Entomophagous Insects, pp. 98–238. —Thompson, 1943. Cat. of Parasites and Predators.—Fulmek, 1946. Zentbl. Gesamtgeb. Ent. 1: 97–106 (hyperparasitism).

Morphology: Parker, 1924. Soc. Ent. France Ann. 93: 261–379 (larvae).—Ishii, 1932. Imp. Agr. Sta. Japan Bul. 3: 161–202 (adult).—Vance and Smith, 1933. Ent. Soc. Amer. Ann. 26: 86 (larval head).—Hanna, 1935. Soc. Ent. d'Égypte Bul. 19: 326–364 (adult).—Burks, 1940. U. S. Natl. Mus. Proc. 88: 239–240.—Bucher, 1948. Canad. Jour. Res. 26D: 230–281 (adult).

Taxonomy: Howard, 1886. Ent. Amer. 1: 197–199, 215–219; 2: 33–38, 97–101 (keys.) —Cresson, 1887. Amer. Ent. Soc. Trans., Sup. Vol., pp. 64–80, 233–246 (cat., keys).—Dalla Torre, 1898. Cat. Hym., v. 5, pp. 1–431.—Ashmead, 1904. Carnegie Mus., Mem. 1: 1–393 (keys, genotypes).—Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 443–528 (keys). —Gahan and Fagan, 1923. U. S. Natl. Mus. Bul. 124: 1–173 (genotypes, original generic references).—Essig, 1926. Ins. of West. No. Amer., pp. 813–851.—Mani, 1938. Cat. Indian Ins., pt. 23 (key).—Essig, 1942. College Entomology, pp. 649–662 (key).—Ceballos, 1942–43. Tribus Himen. España, pp. 164–218 (keys, figs.).—Kloet and Hincks, 1945. Check List Brit. Ins., 283–305.

Family MYMARIDAE

The members of this subfamily are internal parasites in the eggs of other insects, particularly of Homoptera.

Revision: Girault, 1929. No. Amer. Hym. Mymaridae, pp. 6–27 (keys).
Taxonomy: Kryger, 1950. Ent. Meddel. 26: 1–97 (Europe, Keys).

Subfamily GONATOCERINAE

Genus OOCTONUS Haliday

Ooctonus Haliday, 1833. Ent. Mag. 1: 269, 343.
Type: ***Ooctonus insignis*** Haliday. Desig. by Westwood, 1840.
Sphecomicrus Haliday, 1846. *In* Walker, Ann. Mag. Nat. Hist. 18: errata; also p. 50.
Type: ***Ooctonus insignis*** Haliday. Present desig.

Revision: Whittaker, 1931. Ent. Soc. Wash. Proc. 33: 189–192.

americanus Girault. D. C.
Ooctonus americanus Girault, 1916. Ent. News 26: 67. ♀.

aphrophorae Milliron. Wis. Host: *Aphrophora saratogensis* (Fitch).
Ooctonus aphrophorae Milliron, 1947. Ent. Soc. Amer. Ann. 40: 217. ♂ ♀.

auripes Whittaker. B. C.
Ooctonus auripes Whittaker, 1931. Ent. Soc. Wash. Proc. 33: 190. ♀.

canadensis Whittaker. B. C.
Ooctonus canadensis Whittaker, 1931. Ent. Soc. Wash. Proc. 33: 191. ♀.

[16] By O. Peck, Canada Department of Agriculture, Ottawa, Canada.

[17] The chalcidoid portion of this catalog has been prepared in its present form through the assistance of A. B. Gahan, who has suggested not only the taxonomic sequence but also largely the new synonymy and specific transfers. I am heavily indebted to Mr. Gahan for these generous contributions from his great fund of knowledge of this group. To my colleague G. S. Walley thanks are due for help in many nomenclatorial problems.

fuscipes Whittaker. Conn., B. C.
Ooctonus fuscipes Whittaker, 1931. Ent. Soc. Wash. Proc. 33: 189. ♀.

occidentalis Whittaker. B. C.
Ooctonus occidentalis Whittaker, 1931. Ent. Soc. Wash. Proc. 33: 191. ♀.

quadricarinatus Girault. N. Y. Host: *Pityogenes hopkinsi* Swaine.
Ooctonus quadricarinatus Girault, 1916. Ent. Soc. Amer. Ann. 9: 301. ♂.

silvensis Girault. D. C.
Ooctonus silvensis Girault, 1916. Ent. News 27: 70. ♀.

Genus COSMOCOMOIDEA Howard

Cosmocomoidea Howard, 1908. Ent. Soc. Wash. Proc. 10: 68.
Type: ***Cosmocomoidea morrilli*** Howard. Monob.
Revision: Girault, 1929. No. Amer. Hym. Mymaridae, p. 21 (*Ooctonus*, in part).

morrilli Howard. Fla. Hosts: Cicadellid eggs on sugar cane.
Cosmocomoidea morrilli Howard, 1908. Ent. Soc. Wash. Proc. 10: 69. ♂ ♀.
Taxonomy: Girault, 1917. Entomologist 50: 36.

Genus CAMPTOPTERA Foerster

Camptoptera Foerster, 1856. Hym. Stud., v. 2, pp. 116, 119, 144.
Type: ***Camptoptera papaveris*** Foerster. Monob.
Pteroclisis Förster, 1856. Hym. Stud., v. 2, p. 144. N. name.
Macrocamptoptera Girault, 1910. N. Y. Ent. Soc. Jour. 18: 239.
Type: ***Camptoptera metotarsa*** Girault. Monob.
Revision: Girault, 1929. No. Amer. Hym. Mymaridae, p. 20 (*Macrocamptoptera*),22.

brunnea Dozier. Del.
Camptoptera brunnea Dozier, 1933. Ent. Soc. Wash. Proc. 35: 97. ♀.

metotarsa Girault. Va.
Camptoptera metotarsa Girault, 1905. Psyche 12: 91. ♀.
Taxonomy: Girault, 1910. N. Y. Ent. Soc. Jour. 18: 238–240, ♀.

pulla Girault. Del., Ill., Calif. Hosts: *Hercothrips fasciatus* (Perg.); ?*Aleyrodes* sp ; *Polychrosis viteana* (Clem.).
Camptoptera pulla Girault, 1909. Ent. Soc. Amer. Ann. 2: 27. ♀.
Taxonomy: Girault, 1910. N. Y. Ent. Soc. Jour. 18: 236–238, ♂ ♀.

Genus GONATOCERUS Nees

Gonatocerus Nees, 1834. Hym. Ichn. Aff. Monog., v. 2, p. 192.
Type: ***Gonatocerus longicornis*** Nees. Monob.
Lymaenon Haliday, 1846. *In* Walker, Ann. Mag. Nat. Hist. 18: 49, 50.
Type: ***Lymaenon acuminatus*** Haliday. Desig. by Gahan and Fagan, 1923.
Gonatoceroides Girault, 1913. Entomologist 46: 255.
Type: ***Gonatoceroides australica*** Girault. Monob.
Agonatocerus Girault, 1913. Canad. Ent. 45: 276.
Type: ***Agonatocerus humboldti*** Girault. Monob.
Revisions: Girault, 1911. Amer. Ent. Soc. Trans. 37: 254–277.—Girault, 1929. No. Amer. Hym. Mymaridae, pp. 22–27.

americanus Brues. Wis.
Gonatocerus americanus Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 109. ♀.

anthonomi Girault. Ill., Ga., Tex., N. Mex. Host: ?*Tachypterellus quadrigibbus* (Say).
Gonatocerus anthonomi Girault, 1905. Ent. News 16: 288. ♂ ♀.
Gonatocerus texanus Girault, 1911. Amer. Ent. Soc. Trans. 37: 270. ♀.
Gonatocerus websteri Girault, 1911. Amer. Ent. Soc. Trans. 37: 324.

ashmeadi Girault. No. Amer.
Gonatocerus dolichocerus var. ***ashmeadi*** Girault, 1916. Ent. News 27: 8. ♂ ♀.

aureus Girault. Ill.
Gonatocerus aureus Girault, 1911. Amer. Ent. Soc. Trans. 37: 263. ♀.

brunneus Girault. Ill. Host: ?*Aphis pomi* (Deg.).
Gonatocerus brunneus Girault, 1911. Amer. Ent. Soc. Trans. 37: 261. ♂ ♀.
Gonatocerus maevius Girault, 1911. Amer. Ent. Soc. Trans. 37: 272. ♀.

californicus Girault. Calif.
Gonatocerus californicus Girault, 1911. Amer. Ent. Soc. Trans. 37: 271. ♀.

capitatus Gahan. Utah, Ariz., Calif. Host: *Circulifer tenellus* (Baker).
Gonatoceros (!) *capitatus* Gahan, 1932. Ent. Soc. Amer. Ann. 25: 754. ♂ ♀.

dolichocerus Ashmead. Ill., Ga., Fla. Host: *Ceresa bubalus* (F.).
Gonatocerus dolichocerus Ashmead, 1887. Canad. Ent. 19: 192. ♀.

fasciatus Girault. D. C., Va., Ill.
Gonatocerus fasciatus Girault, 1911. Amer. Ent. Soc. Trans. 37: 265. ♀.

illinoiensis Girault. Ill.
Gonatocerus illinoiensis Girault, 1917. Psyche 24: 91. ♀.

koebelei Perkins. Hosts: *Draeculacephala minor* (Wlkr.); *D. mollipes* (Say).
Gonatoceus (!) *koebelei* Perkins, 1912. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 10: 22. ♂ ♀.

latipennis Girault. ?Canada.
Gonatocerus latipennis Girault, 1911. Amer. Ent. Soc. Trans. 37: 268. ♂.

maga Girault. Ill.
Gonatocerus maga Girault, 1911. Amer. Ent. Soc. Trans. 37: 267. ♀.

marylandicus Girault, emend. Md.
Gonatocerus marilandicus Girault, (1916) 1917. Insecutor Inscitiae Menstruus 4: 115. ♀.

maximus Girault. Ill.
Gonatocerus maximus Girault, 1911. Amer. Ent. Soc. Trans. 37: 264. ♀.

mexicanus Perkins. Fla., Ariz. Hosts: *Draeculacephala mollipes* (Say).
Gonatocerus mexicanus Perkins, 1912. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 10: 21. ♂ ♀.
Gonatocerus eximius Gahan, 1913. U. S. Natl. Mus. Proc. 46: 441. ♀.
Gonatocerus gibsoni Crawford, 1915. U. S. Natl. Mus. Proc. 48: 586. ♂ ♀.
Biology: Gibson, 1915. U. S. Dept. Agr. Bul. 254: 14.

nigritarsis Ashmead. Fla.
Gonatocerus nigritarsis Ashmead, 1887. Canad. Ent. 19: 192. ♀.

novifasciatus Girault. Tenn.
Gonatocerus novifasciatus Girault, 1911. Amer. Ent. Soc. Trans. 37: 266. ♀.
Taxonomy: Girault, 1916. Brooklyn Ent. Soc. Bul. 11: 112.

ornatus Gahan. Ariz. Host: *Stictocephala festina* (Say).
Gonatocerus ornatus Gahan, 1918. Ent. Soc. Wash. Proc. 20: 23. ♂ ♀.

ovicenatus Leonard and Crosby. N. Y. Hosts: *Idiocerus scurra* Germ., Cicadellid eggs in sugar cane.
Gonatocerus ovicenatus Leonard and Crosby, 1915. Jour. Econ. Ent. 8: 545. ♂ ♀.

partifuscipennis Girault. Md.
Gonatocerus partifuscipennis Girault, 1916. Canad. Ent. 48: 102. ♀.

pygmaeus Girault. Miss.
Gonatocerus pygmaeus Girault, 1911. Amer. Ent. Soc. Trans. 37: 269. ♀.

rivalis Girault. Va., Ill., Kans.
Gonatocerus rivalis Girault, 1911. Amer. Ent. Soc. Trans. 37: 257. ♂ ♀.

tenuipennis Girault. Ill.
Gonatocerus brunneus var. *tenuipennis* Girault, 1911. Amer. Ent. Soc. Trans. 37: 263. ♀.

titillatus Girault. Utah.
Gonatocerus titillatus Girault, 1917. Brooklyn Ent. Soc. Bul. 12: 87. ♀.

utahensis Girault. Utah. Host: ?Cicadellid eggs in *Elymus*.
Gonatocerus utahensis Girault, 1917. U. S. Natl. Mus. Proc. 53: 446. ♀.

Genus ALAPTUS Haliday

Alaptus Haliday, 1840. *In* Westwood, Introduct. Mod. Classif. Ins., v. 2, p. 79.
Type: ***Alaptus minimus*** Haliday. Monob.
Metalaptus Malenotti, 1917. Redia 12: 339.
Type: ***Metalaptus torquatus*** Malenotti. Monob.
Revision: Girault, 1929. No. Amer. Hym. Mymaridae, pp. 9–10.

caecilii Girault. Maine, Fla., Ill., Calif., ?Mass. Hosts: *Caecilius aurantiacus* (Hag.); *C. manteri* Som.; ?*Ectopsocus californicus* (Banks); *Psocus*; Psocid; ?*Trialeurodes fernaldi* (Morrill).
Alaptus caecilii Girault, 1908. Ent. Soc. Amer. Ann. 1: 189. ♂ ♀.
Taxonomy: Girault, 1910. N. Y. Ent. Soc. Jour. 18: 241–243.

eriococci Girault. Calif. Hosts: Psocid; *Aonidiella aurantii* (Mask.); *Eriococcus araucariae* Mask.
Alaptus eriococci Girault, 1908. Ent. Soc. Amer. Ann. 1: 191. ♂ ♀.

globosicornis Girault. Fla. Hosts: *Liposcelis divinatorius* (Müll.); Psocid; ?*Lepidosaphes beckii* (Newm.).
Alaptus globosicornis Girault, 1908. Ent. Soc. Amer. Ann. 1: 188. ♀.
Taxonomy: Girault, 1911. Arch. f. Naturgesch. 77 (1) sup. 2: 132.

iceryae Riley. Ill., Calif. Hosts: *Aspidiotus camelliae* Sign.; ♂ pupa of *Icerya*; *I. purchasi* Mask.
Alaptus iceryae Riley, 1889. U. S. Dept. Agr. Ann. Rpt. for 1888, p. 86.
Taxonomy: Girault, 1908. Ent. Soc. Amer. Ann. 1: 186. ♂ ♀.—Girault, 1910. N. Y. Ent. Soc. Jour. 18: 240–243. ♂ ♀.

intonsipennis Girault. Ill.
Alaptus intonsipennis Girault, 1910. N. Y. Ent. Soc. Jour. 18: 244. ♀.

psocidivorus Gahan. Calif. Hosts: ?*Ectopsocus californicus* Banks; psocid eggs on *Heteromeles*.
Alaptus psocidivorus Gahan, 1927. Pan-Pacific Ent. 3: 180. ♂ ♀.
Biology: Spruyt, 1927. Pan-Pacific Ent. 3: 182–184. ♂ ♀.

torquatus (Malenotti). La. Host: ?*Pseudaonidia duplex* (Ckll.).
Metalaptus torquatus Malenotti, 1917. Redia 12: 339. ♂ ♀.
Taxonomy: Cressman, Bliss, Kessels, and Dumestre, 1935. Jour. Agr. Res. 50: 282.

Genus DICOPUS Enock

Dicopus Enock, 1909. Ent. Soc. London Trans., p. 455.
Type: ***Dicopus minutissima*** Enock. Monob.
Revision: Girault, 1929. No. Amer. Hym. Mymaridae, pp. 10–11.

halitus Girault. Que. Host: ?*Choristoneura fumiferana* (Clem.).
Dicopus halitus Girault, 1911. Ent. News 22: 347. ♂.

Subfamily MYMARINAE

Genus ERYTHMELUS Enock

Erythmelus Enock, 1909. Ent. Soc. London Trans., p. 454.
Type: ***Erythmelus gucchi*** Enock. Monob.
Revisions: Girault, 1929. No. Amer. Hym. Mymaridae, pp. 7–8.—Doutt, 1949. Pan-Pacific Ent. 25: 77–81 (Calif.).

flandersi Doutt. Calif.
Erythmelus flandersi Doutt, 1949. Pan-Pacific Ent. 25: 77. ♂ ♀.

gracilipes (Girault). N. Mex.
Anaphes gracilipes Girault, 1916. Ent. News 27: 7. ♀.

gracilis (Howard). N. J. to Ga.; Ill. Hosts: *Aspidiotus perniciosus* Comst.; *Lepidosaphes ulmi* (L.); *Carpocapsa pomonella* (L.).
Anaphes gracilis Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 370. ♀.
Anaphes cinctiventris Girault, 1911. Amer. Ent. Soc. Trans. 37: 286. ♀.
Biology: Johnson, 1900. U. S. Dept. Agr. Div. Ent. Bul. (n. s.) 26: 73–74.

io (Girault). Ill., Calif.
Anagrus io Girault, 1911. Amer. Ent. Soc. Trans. 37: 294. ♂.

miridiphagus Dozier. Calif.
Erythmelus miridiphagus Dozier, 1937. Puerto Rico Univ. Jour. Agr. 21: 133. ♀.

picinus (Girault). N. Mex.
Anaphes picinus Girault, 1916. Ent. News 27: 6. ♀.

psallidis Gahan. S. C., Miss., Ark., La., Tex., Ariz., Calif. Hosts: ?*Macrolophus separatus* (Uhl.); *Psallus seriatus* (Reut.); ?*Reuteroscopus sulphureus* (Reut.).
Erythmelus psallidis Gahan, 1937. Ent. Soc. Wash. Proc. 39: 268. ♂ ♀.
Biology: Ewing and Crawford, 1939. Jour. Econ. Ent. 32: 303–305.

Genus PARALLELAPTERA Enock

Parallelaptera Enock, 1909. Ent. Soc. London Trans., p. 454.
Type: *Parallelaptera panis* Enock. Monob.
Anthemiella Girault, 1911. Ent. Soc. Wash. Proc. 13: 185.
Type: *Anthemiella rex* Girault. Monob.
Revision: Girault, 1929. No. Amer. Hym. Mymaridae, p. 8.

rex (Girault). Ill., Calif. Host: *Circulifer tenellus* (Baker).
Anthemiella rex Girault, 1911. Ent. Soc. Wash. Proc. 13: 185. ♀.

Genus STETHYNIUM Enock

Stethynium Enock, 1909. Ent. Soc. London Trans., p. 452.
Type: *Stethynium triclavatum* Enock. Monob.

annulatum Doutt. Calif.
Stethynium annulatum Doutt, 1947. Pan-Pacific Ent. 23: 152. ♀.

faunum Girault. Ill.
Stethynium faunum Girault, 1911. Amer. Ent. Soc. Trans. 37: 298. ♂ ♀.

Genus PATASSON Walker

Patasson Walker, 1846. Ann. Mag. Nat. Hist. 18, errata.
Type: *Panthus crassicornis* Haliday. Monob.
Anaphoidea Girault, 1909. N. Y. Ent. Soc. Jour. 17: 167.
Type: *Anaphoidea sordidata* Girault. Monob.
Anaphoides Enock, 1915. Hastings and East Sussex Nat. 2: 181 (no species).
Type: *Patasson crassicornis* (Haliday). Present desig.
Revisions: Girault, 1910. N. Y. Ent. Soc. Jour. 18: 246–254.—Girault, 1929. No. Amer. Hym. Mymaridae, pp. 13–14 (*Anaphoidea*).

calendrae (Gahan), n. comb. N. J., Ind., Mo., Miss. Hosts: *Calendra callosa* (Oliv.); *C. costipennis* (Horn); *C. destructor* (Chitt.); *C. minima* (Hart); *C. parvula* (Gyll.); *C. pertinax* (Oliv.).
Anaphoidea calendrae Gahan, 1927. U. S. Natl. Mus. Proc. 71 (4): 32. ♂ ♀.
Biology: Satterthwaite, 1931. N. Y. Ent. Soc. Jour. 39: 171.

conotracheli (Girault), n. comb. Conn. to Ga. and Ky.; Minn., Okla., Tex., Utah. Hosts: *Conotrachelus nenuphar* (Herbst); *Craponius inaequalis* (Say); *Rhagoletis pomonella* (Walsh); *Sofus pilicornis* (Holmg.).
Anaphes conotracheli Girault, 1905. Ent. News 16: 220. ♂ ♀.
Anaphoidea luna Girault, 1914. Ent. Soc. Wash. Proc. 16: 109. ♂ ♀.
Biology: Johnson and Girault, 1906. U. S. Dept. Agr., Bur. Ent., Cir. 73: 5–6.—

Brooks, 1910. W. Va. Agr. Expt. Sta. Bul. 126: 110.—Porter, 1928. U. S. Dept. Agr. Tech. Bul. 66: 29.—Dozier, Williams, and Butler, 1932. Del. Agr. Expt. Sta. Bul. 175: 38.
Taxonomy: Girault, 1910. N. Y. Ent. Soc. Jour. 18: 247–254. ♂ ♀.

pullicrura (Girault), n. comb. Ill.
Anaphoidea pullicrura Girault, 1910. N. Y. Ent. Soc. Jour. 18: 252. ♂ ♀.

sordidatus (Girault), n. comb. N. J., Ill. Host: *Tyloderma foveolata* Say.
Anaphoidea sordidata Girault, 1909. N. Y. Ent. Soc. Jour. 17: 169. ♂ ♀.

Genus ANAGRUS Haliday

Anagrus Haliday, 1833. Ent. Mag. 1: 346.
Type: ***Ichneumon atomus*** Linnaeus. Desig. by Westwood, 1840.
Revisions: Girault, 1911. Amer. Ent. Soc. Trans. 37: 289–298.—Girault, 1929. No. Amer. Hym. Mymaridae, pp. 8–9.

armatus armatus (Ashmead). Ont., N. Y. and Conn. to Md., Ill., Iowa, Fla., Colo., Oreg. Hosts: *Empoasca fabae* Harr.; *Typhlocyba pomaria* McAtee; *T. rosae* (L.); *Delphacodes* sp.; *Aphis pomi* Deg.; *Aspidiotus perniciosus* Comst.; ?*A. uvae* Comst.; *Aulacaspis rosae* (Bouché); *Lecanium corni* Bouché; gall of *Dasyneura serrulatae* O. S.
Litus armatus Ashmead, 1887. Canad. Ent. 19: 193. ♀.
Eustochus xanthothorax Ashmead, 1887. Canad. Ent. 19: 193. ♀.
Anagrus columbi Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1 (6): 198. ♀.
Anagrus spiritus Girault, 1911. Ent. News 22: 207. ♂ ♀.
Biology: Childs, 1918. Oreg. Agr. Expt. Sta. Bul. 148: 27.
Taxonomy: Girault, 1911. Amer. Ent. Soc. Trans. 37: 277, 289. ♂ ♀.

armatus nigriceps Girault. Oreg. Host: *Typhlocyba rosae* (L.).
Anagrus armatus var. ***nigriceps*** Girault, 1915. Ent. Soc. Amer. Ann. 8: 276. ♀.

armatus nigriventris Girault. Ont. to Conn., S. C., and Ill.; N. Mex., Utah. Hosts: *Empoasca fabae* (Harr.); *Typhlocyba pomaria* McAtee; *Halticus bracteatus* (Say) .
Anagrus armatus var. ***nigriventris*** Girault, 1911. Amer. Ent. Soc. Trans. 37: 291. ♀.
Biology: Ackerman, 1919. U. S. Dept. Agr. Bul. 805: 28.—Armstrong, 1936. Ent. Soc. Ontario Ann. Rpt. 66: 17–22, ♂ ♀.—Steiner, 1938. Conn. Pomol. Soc. Proc. 47: 23–25.

delicatus Dozier. Ill.
Anagrus delicatus Dozier, 1936. Hawaii. Ent. Soc. Proc. 9: 177. ♂ ♀.

epos Girault. Pa., Md., Va., Ill., N. Mex., Calif. Hosts: *Empoasca fabae* (Harr.); *Erythroneura plena* Beamer; *E. comes* (Say); *Typhlocyba pomaria* McAtee; *Aspidiotus perniciosus* Comst.; *Coleophora malivorella* Riley.
Anagrus epos Girault, 1911. Amer. Ent. Soc. Trans. 37: 292. ♂ ♀.
Biology: Ackerman, 1919. U. S. Dept. Agr. Bul. 805: 28.

giraulti Crawford. Idaho, Utah, Calif. Hosts: *Arilus cristatus* (L.); *Circulifer tenellus* (Baker); ?*Gnorimoschema operculella* (Zell.).
Anagrus giraulti Crawford, 1913. U. S. Natl. Mus. Proc. 45: 259. ♂ ♀.
Biology: Stahl, 1920. Jour. Agr. Res. 20: 250.—Henderson, 1941. U. S. Dept. Agr. Cir. 593: 2–10.

puella Girault. Ill., Colo.
Anagrus puella Girault, 1911. Amer. Ent. Soc. Trans. 37: 293. ♂ ♀.

Genus MYMAR Curtis

Mymar Curtis, 1832. Brit. Ent., v. 9, p. 411.
Type: ***Ichneumon punctum*** Shaw. Orig. desig.
Anaphes Haliday, 1833. Ent. Mag. 1: 269, 346.
Type: ***Ichneumon punctum*** Shaw. Desig. by Westwood, 1840.
Revisions: Girault, 1911. Amer. Ent. Soc. Trans. 37: 277–288 (*Anaphes* in part).—Girault, 1929. No. Amer. Hym. Mymaridae, pp. 13–14 (*Anaphes* in part). Gahan, 1949. Wash. Acad. Sci. Jour. 39: 204–205 (nomencl.).

anomocerus (Girault), n. comb. Tex., Ariz. Host: *Psallus seriatus* (Reut.).
Anaphes iole anomocerus Girault, 1929. No. Amer. Hym. Mymaridae, p. 13.
Biology: Ewing and Crawford, 1939. Jour. Econ. Ent. 32: 303–305.

behmani (Girault), n. comb. U. S.
Anaphes behmani Girault, 1929. No. Amer. Hym. Mymaridae, p. 14.

hercules (Girault), n. comb. Ill.
Anaphes hercules Girault, 1911. Amer. Ent. Soc. Trans. 37: 285. ♀.

iole (Girault), n. comb. Ill. Host: *Hypera nigrirostris* (F.).
Anaphes iole Girault, 1911. Amer. Ent. Soc. Trans. 37: 284. ♀.

nigrellus (Girault), n. comb. Ill.
Anaphes nigrellus Girault, 1911. Amer. Ent. Soc. Trans. 37: 282. ♀.

ovijentatus (Crosby and Leonard), n. comb. N. Y., La., Calif. Hosts: *Lygus hesperus* Knight; *L. oblineatus* (Say).
Anagrus ovijentatus Crosby and Leonard, 1914. Canad. Ent. 46: 181. ♀.
Biology: Romney and Cassidy, 1945. Jour. Econ. Ent. 38: 497.

pallipes (Ashmead). Va., Fla. Host: ?*Gnorimoschema operculella* (Zell.).
Alaptus pallipes Ashmead, 1887. Canad. Ent. 19: 193. ♀.
Taxonomy: Girault, 1910. N. Y. Ent. Soc. Jour. 18: 243–244.—Girault, 1911. Amer. Ent. Soc. Trans. 37: 278–279. ♀.

perdubius (Girault), n. comb. Minn., S. C., Utah. Hosts: Cicadellid; *Halticus bracteatus* (Say).
Anaphes perdubius Girault, 1916. Ent. News 27: 6. ♀.

pratensis (Foerster), n. comb. Conn., Ill., Utah. Hosts: *Hypera postica* (Gyll.); *H. punctata* (F.).
Anaphes pratensis Foerster, 1847. Linnaea Ent. 2: 211. ♂ ♀.
Biology: Pack, 1930. Utah Agr. Expt. Sta. Bul. 216: 29–30.
Taxonomy: Girault, 1912. Canad. Ent. 44: 88.

sinipennis (Girault), n. comb. Ill.
Anaphes sinipennis Girault, 1911. Amer. Ent. Soc. Trans. 37: 280. ♀.

Genus ACMOPOLYNEMA Ogloblin

Acmopolynema Ogloblin, 1946. Iowa State Col. Jour. Sci. 20: 286.
Type: *Stichothrix bifasciatipennis* Girault. Orig. desig.

bifasciatipennis bifasciatipennis (Girault). N. Y. and Mass. to N. C. and Pa.; Tex., Kans. Hosts: *Anaxipha exigua* (Say); *Oecanthus nigricornis* Wlkr.; *O. nigricornis quadripunctatus* Beut.; *O. niveus* (Deg.).
Stichothrix bifasciatipennis Girault, 1908. Psyche 15: 115. ♀.
Polynema oecanthi Girault, 1911. Amer. Ent. Soc. Trans. 37: 317.
Biology: Brandhorst, 1943. Kans. Acad. Sci. Trans. 46: 169, 172.
Taxonomy: Girault, 1910. N. Y. Ent. Soc. Jour. 18: 254–258, ♂ ♀.

bifasciatipennis varium (Girault), n. comb. Kans. Hosts: *Oecanthus* eggs; Tephritid seed maggot from ironweed.
Polynema bifasciatipenne (!) var. *varium* Girault, 1917. Psyche 24: 92. ♂ ♀.

Genus BARYPOLYNEMA Ogloblin

Barypolynema Ogloblin, 1946. Iowa State Col. Jour. Sci. 20: 282.
Type: *Barypolynema reticulatum* Ogloblin. Orig. desig.

aspidioti (Girault). Tex. Host: *Psallus seriatus* (Reut.).
Polynema aspidioti Girault, 1911. Ent. News 22: 358. ♂.
Taxonomy: Girault, 1911. Ent. News 23: 298, ♂.

saga (Girault). D. C., Kans. Host: *Opsius stactogalus* Fieb.
Anagrus saga Girault, 1911. Amer. Ent. Soc. Trans. 37: 296. ♀.
Biology: Lawson, 1929. Ent. Soc. Amer. Ann. 22: 130.

Genus POLYNEMA Haliday

Polynema Haliday, 1833. Ent. Mag. 1: 269, 347.
Type: *Ichneumon ovulorum* Linnaeus. Desig. by Westwood, 1840.

Eutriche Nees, 1834. Hym. Ichn. Aff. Monog., v. 2, p. 186.
Type: ***Eutriche gracilis*** Nees. Monob.
Callitriche Agassiz, 1848. Nomencl. Zool. Index Univ., pp. 173, 439. Emend. Preocc.
Cosmocoma Foerster, 1856. Hym. Stud., v. 2, pp. 117, 120. N. name.
Walkerella Westwood, 1883. Ent. Soc. London, Trans. (2) 1: 32.
Type: ***Walkerella temeraria*** Westwood. Monob.
Stephanodes Enock, 1909. Ent. Soc. London, Trans, p. 457.
Type: ***Stephanodes elegans*** Enock. Monob.
Revisions: Girault, 1911. Amer. Ent. Soc. Trans. 37: 300–324.—Girault, 1929. No. Amer. Hym. Mymaridae, pp. 14–19.

bimaculatipennis Girault. Tex.
Polynema bimaculatipenne (!) Girault, 1911. Amer. Ent. Soc. Trans. 37: 304. ♀.

caesariatipennis Girault. D. C., Kans. Host: Tephritid seed maggot from ironweed.
Polynema caesariatipenne (!) Girault, 1911. Amer. Ent. Soc. Trans. 37: 305. ♀.

ciliatum (Say), n. comb. Ind.
Psilus ciliatus Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 80.

consobrinus Girault. Mich., Ohio, Ga., Ill., Iowa, Minn. Hosts: ?*Empoasca fabae* (Harr.); *Enchenopa binotata* (Say); *Anthonomus signatus* Say; ?*Tachypterellus quadrigibbus* (Say).
Polynema consobrinus Girault, 1911. Amer. Ent. Soc. Trans. 37: 308, 309. ♂ ♀.
Taxonomy: Girault, 1911. Ent. News 22: 467.

enchenopae Girault. Ill. Host: *Enchenopa binotata* (Say).
Polynema enchenopae Girault, 1911. N. Y. Ent. Soc. Jour. 19: 15. ♂ ♀.

eutettixi Girault. Idaho, Utah, Calif. Host: *Circulifer tenellus* (Baker).
Polynema eutettexi Girault, 1917. Descr. Stellarum Nov., p. 18. ♂ ♀.
Polynema eutettixi Stahl, 1920. Jour. Agr. Res. 20: 250. Emend.
Biology: Stahl, 1920. Jour. Agr. Res. 20: 250.

florum Girault. B. C.
Polynema florum Girault, 1929. No. Amer. Hym. Mymaridae, pp. 18, 28.

graculus Girault. Wis., Ill., Tex.
Polynema graculus Girault, 1911. Amer. Ent. Soc. Trans. 37: 308. ♂.

howardii (Ashmead). Calif., ?Colo. Host: *Ceresa bubalus* (F.).
Cosmocoma elegans Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 371. ♂. Preocc.
Cosmocoma Howardii Ashmead, 1887. Canad. Ent. 19: 194. N. name.
Cosmocoma Howardi Dalla Torre, 1890. Wien. Ent. Ztg. 9: 97. N. name.
Taxonomy: Girault, 1911. Amer. Ent. Soc. Trans. 37: 300–302. ♂.

imitatrix Gahan. Ariz. Host: *Stictocephala festina* (Say).
Polynema imitatrix Gahan, 1918. Ent. Soc. Wash. Proc. 20: 24. ♂ ♀.

longipes (Ashmead). Del., Ohio, Ind., Ill., Tenn., Fla. Hosts: Probably *Aphis pomi* Deg.; *Harmolita* sp. ex *Elymus canadensis*.
Ooctonus longipes Ashmead, 1887. Canad. Ent. 19: 192. ♀.
Polynema citripes Girault, 1909. Psyche 16: 106.
Taxonomy: Girault, 1911. Amer. Ent. Soc. Trans. 37: 316, 324. ♀.

maculipes (Ashmead). Fla.
Cosmocoma maculipes Ashmead, 1887. Canad. Ent. 19: 194. ♂.
Taxonomy: Girault, 1911. Amer. Ent. Soc. Trans. 37: 306–308. ♀.

marylandicum Girault, emend. Md.
Polynema marilandicum Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 2. ♀.

mymaripennis Dozier. Del.
Polynema mymaripennis Dozier, 1933. Ent. Soc. Wash. Proc. 35: 96. ♀.

nativum Girault. B. C.
Polynema nativum Girault, 1929. No. Amer. Hym. Mymaridae, pp. 19, 28.

needhami Ashmead. Ill. Hosts: *Lestes uncatus* Kirby; *L. unguiculatus* Hagen.
Polynema needhami Ashmead, 1900. Ent. News 11: 616. ♂ ♀.

picipes Girault. N. Y., Ga. Host: *?Tachypterellus quadrigibbus* (Say).
Polynema picipes Girault, 1905. Psyche 12: 91. ♀.
Polynema piceipes (!) Girault, 1911. N. Y. Ent. Soc. Jour. 19: 18, 22. Emend.
Taxonomy: Girault, 1911. Amer. Ent. Soc. Trans. 37: 313. ♀.

pratensiphagum Walley. Ont. Host: *Lygus oblineatus* (Say).
Polynema pratensiphaga (!) Walley, 1929. Canad. Ent. 61: 193. ♂ ♀.

psecas Girault. Ill.
(***Stephanodes***) ***Polynema psecas*** (Girault), 1911. Amer. Ent. Soc. Trans. 37: 319. ♂ ♀.
Stephanodes psecas Girault, 1912. N. Y. Ent. Soc. Jour. 20: 41. ♀.

regina Girault. B. C.
Polynema regina Girault, 1912. Ent. Soc. Wash. Proc. 14: 24. ♀.

sibylla Girault. Va., Ill., Wis.
Polynema sibylla Girault, 1911. Amer. Ent. Soc. Trans. 37: 311. ♂ ♀.

striaticorne Girault. N. S. to Va., Mo., Colo. and Minn.; Tex., Calif., Idaho, B. C. Hosts: *Ceresa borealis* (Fairm.); *C. bubalus* (F.); *C. taurina* (Fitch); *Stictocephala inermis* (F.); *Oncopsis sobrius* (Wlkr.); *Anuraphis bakeri* (Cowen); *?Gnorimoschema operculella* (Zell.); *?Dasyneura leguminicola* (Lint.); gall of *Rhabdophaga triticoides* Walsh; *Aphelinus lapisligni* How.; *Pachyneuron siphonophorae* (Ashm.).
Polynema striaticorne Girault, 1911. N. Y. Ent. Soc. Jour. 19: 12. ♂ ♀.
Polynema striaticorne var. ***boreum*** Girault, 1916. Ent. News 27: 8. ♀.
Biology: Balduf, 1928. Ent. Soc. Amer. Ann. 21: 419-435. ♂ ♀.
Taxonomy: Girault, 1911. Amer. Ent. Soc. Trans. 37: 302, 308. ♂ ♀.

zetes Girault. D. C., Ill.
Polynema zetes Girault, 1911. Amer. Ent. Soc. Trans. 37: 314. ♀.

Genus CARAPHRACTUS Haliday

Caraphractus Haliday, 1846. *In* Walker, Ann. Mag. Nat. Hist. 18: 49, 50, 52.
Type: ***Caraphractus cinctus*** Haliday. Monob.

cinctus Haliday. N. Y.; Europe. Host: *Notonecta* sp.
Caraphractus cinctus Haliday, 1846. *In* Walker, Ann. Mag. Nat. Hist. (1) 18: 52.
Biology and taxonomy: Matheson and Crosby, 1912. Ent. Soc. Amer. Ann. 5: 68–70.

Genus NEOMYMAR Crawford

Neomymar Crawford, 1913. U. S. Natl. Mus. Proc. 46: 351.
Type: ***Neomymar vierecki*** Crawford. Monob.
Revision: Girault, 1929. No. Amer. Hym. Mymaridae, pp. 12–13.

vierecki marylandi Girault, emend. Md.
Neomymar vierecki marilandi Girault, 1917. Chalcidoidea Nova Marilandensis III, p. 2. ♀.

vierecki vierecki Crawford. Va.
Neomymar vierecki Crawford, 1913. U. S. Natl. Mus. Proc. 46: 351. ♀.

Genus MYMARILLA Westwood

Mymar of American authors.
Mymarilla Westwood, 1878. Linn. Soc. London, Trans. Zool., (2) 1: 585.
Type: ***Mymar wollastonii*** Westwood. Monob.
Oglobliniella Soyka, 1946. Zentbl. Gesamtgeb. Ent. 1: 181. N. syn.
Type: (***Mymar***) ***Oglobliniella pulchella*** Curtis. Orig. desig.
Revisions: Girault, 1929. No. Amer. Hym. Mymaridae, p. 12.—Gahan, 1949. Wash. Acad. Sci. Jour. 39: 209 (nomencl.).

cincinnati (Girault), n. comb. Md.
Mymar cincinnati Girault, 1917. Psyche 24: 99. ♂.

venusta (Girault), n. comb. Pa.
Mymar venustum Girault, 1911. N. Y. Ent. Soc. Jour. 19: 94, 188. ♀.

Genus ARESCON Haliday

Arescon Haliday, 1846. *In* Walker, Ann. Mag. Nat. Hist. 18: 49, 50.
Type: *Mymar dimidiatus* Curtis. Monob.
Panthus Haliday, 1846. *In* Walker, Ann. Mag. Nat. Hist. 18: 49, 50.
Type: *Panthus flavovarius* Haliday. Type by elimination.
Leimacis Foerster, 1847. Linnaea Ent. 2: 208.
Type: *Leimacis rufula* Foerster. Monob.
Limacis Foerster, 1856. Hym. Stud., v. 2, p. 120. Emend.

aspidioticola (Ashmead). Fla. Hosts: *Lepidosaphes beckii* (Newm.); *L. gloverii* (Pack.).
Aphelinus aspidioticola Ashmead, 1879. Canad. Ent. 11: 159. ♀.

Family TRICHOGRAMMATIDAE

The members of this family are primary internal parasites in the eggs of other insects.

Revisions: Girault, 1912. Wis. Nat. Hist. Soc. Bul. 10:81–100 (cat., keys).—Girault, 1914. Wis. Nat. Hist. Soc. Bul. 12: 55–71 (cat.).—Girault, 1918. No. Amer. Hym. Trichogrammatidae, pp. 1–11 (keys).

Genus TRICHOGRAMMA Westwood

Trichogramma Westwood, 1833. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 2: 444.
Type: *Trichogramma evanescens* Westwood. Monob.
Calleptiles Haliday, 1833. Ent. Mag. 1: 340.
Type: *Calleptiles latipennis* Haliday. Monob.
Pentarthron Packard, 1872 (1871). Rec. Amer. Ent., p. 8.
Type: *Trichogramma? minuta* Riley. Monob.
Oophthora Aurivillius, 1898 (1897). Ent. Tidskr. 18: 250.
Type: *Oophthora semblidis* Aurivillius. Monob.
Pentarthrum Dalla Torre, 1898. Cat. Hym., v. 5, p. 3. Emend.
Xanthoatomus Ashmead, 1904. Carnegie Mus. Mem. 1: xi, 360.
Type: (*Xanthoatomus albipes* Ashmead)=*Trichogramma minutum* Riley. Monob.
Trichogrammatoidea Girault, 1911. Amer. Ent. Soc. Trans. 37: 13.
Type: *Chaetosticha nana* Zehntner. Orig. desig.
Revision: Girault, 1918. No. Amer. Hym. Trichogrammatidae, pp. 4–5.

evanescens Westwood. Minn., Oreg. Hosts: *Heliothis* sp.; *Malacosoma disstria* Hbn.; *Melissopus latiferreanus* (Wlsm.); *Sitotroga cerealella* (Oliv.).
Trichogramma evanescens Westwood, 1833. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 2: 444.
Biology: Gatenby, 1918. Quart. Jour. Micros. Sci. 63: 161–174.—Thompson and Parker, 1928. U. S. Dept. Agr. Tech. Bul. 59: 17.—Hase, 1929. Internatl. Corn Borer Invest. Sci. Rpt. 2: 85–89.—Salt, 1937. Roy. Soc. London, Proc. (Ser. B) 122: 57–75.—Salt, 1939 (1938). Parasitology 30: 511-522.—Salt, 1942 (1941). Biol. Rev. Cambridge Phil. Soc. 16: 242–248.

minutum Riley. Common throughout U. S. and Canada. Hosts: *Chrysopa oculata* Say; *C. oculata albicornis* Fitch; *Lepidosaphes ulmi* (L.); *Chalepus dorsalis* Thunb.; *Deloyala guttata* (Oliv.); *Metriona bicolor* (F.); *Odontota suturalis* Thunb.; *Papilio glaucus* L.; *Colias philodice eurytheme* Bdvl.; *Pieris rapae* (L.); *Danaus plexippus* (L.); *Oeneis macounii* Edw.; *Agraulis vanillae* L.; *Basilarchia archippus* (Cram.); *Nymphalis milberti* Godt.; *Polygonia interrogationis* (F.); *Vanessa atalanta* (L.); *Lycaena hanno* (Stoll); *Calpodes ethlius* (Stoll); *Erynnis lucilius* (Scud. and Burg.); *Urbanus proteus* (L.); *Ceratomia catalpae* (Bdvl.); *Protoparce quinquemaculata* (Haw.); *P. sexta* (Johan.); *Coloradia pandora* Blake; *Anisota senatoria* (A. and S.); *Celama sorghiella* (Riley); *Cisthene nexa* (Bdvl.); *Estigmene acrea* (Drury); *Hyphantria cunea* (Drury); *Alabama argillacea* (Hbn.); *Anomis erosa* (Hbn.);

Anticarsia gemmatilis (Hbn.); *Caenurgina erechtea* (Cram.); *Ceramica picta* (Harr.); *Heliothis armigera* (Hbn.); *Heterocampa guttivitta* (Wlkr.); *H. pseudotsugata* (McD.); *Laphygma frugiperda* (A. and S.); *Peridroma margaritosa* (Haw.); *Plathypena scabra* (F.); *Trichoplusia ni* (Hbn.); *Datana integerrima* Grote and Rob.; *Oligocentris lignicolor* (Wlkr.); *Nygmia phaeorrhoea* (Donov.); *Olene plagiata pinicola* Dyar; *Stilpnotia salicis* (L.); *Alsophila pometaria* (Harr.); *Cnidocampa flavescens* (Wlkr.); *Acrobasis caryae* Grote; *A. juglandis* (LeB.); *Chilo forbesellus* Fern.; *C. plejadellus* Zinck.; *Corcyra cephalonica* Staint; *Diatraea crambidoides* (Grote); *D. grandiosella* Dyar; *D. saccharalis* (F.); *D. zeacolella* Dyar; *Ephestia cautella* (Wlkr.); *E. kühniella* Zell.; *Loxostege similalis* (Guen.); *Mineola vaccinii* (Riley); *Occidentalia comptulatalis* (Hulst.); *Phlyctaenia rubigalis* (Guen.); *P. tertialis* (Guen.); *Plodia interpunctella* (Hbn.); *Pyrausta ainsliei Heinr.*; *P. nubilalis* (Hbn.); *P. penitalis* (Grote); *Schoenobius melinellus dispersellus* Rob.; *Ancylis comptana* (Froehl.); *Bactra lanceolana* (Hbn.); *Carpocapsa pomonella* (L.); *Grapholitha molesta* (Busck); *Gretchena bolliana* (Sling.); *Laspeyresia caryana* (Fitch); *Melissopus latiferreanus* (Wlsm.); *Polychrosis viteana* (Clem.); *Rhyacionia buoliana* (Schiff.); *R. frustrana* (Comst.); *Spilonota ocellana* (D. and S.); *Amelia ivana* (Fern.); *Archips rosaceana* (Harr.); *Argyrotaenia citrana* (Fern.); *A. mariana* (Fern.); *A. velutinana* (Wlkr.); *Choristoneura fumiferana* (Clem.); *Peronea variana* Fern.; *Platynota rostrana* (Wlkr.); *Gnorimoschema operculella* (Zell.); *Sitotroga cerealella* (Oliv.); *Sanninoidea exitiosa* (Say); *Coleophora malivorella* (Riley); *C. pruniella* Clem.; *C. salmani* Heinr.; *Thyridopteryx ephemeraeformis* (Haw.); *Pegomya calyptrata* (Zett.); *P. hyoscyami* (Panz.); *Cimbex americana* Leach; *Ametastegia glabrata* (Fall.); *Caliroa aethiops* (F.); *C. amygdalina* Roh.; *C. cerasi* (L.); *C. obsoleta* (Nort.); *Heterarthrus nemoratus* (Fall.); *Nematus populi* (Marl.); *N. ribesii* (Scop.); ?*Pachynematus palliventris* (Cress.); *Pikonema alaskensis* (Roh.); *Profenusa canadensis* (Marl.).

Trichogramma (?) ***minuta*** Riley, 1871. Mo. State Bd. Agr. Ann. Rpt. 6: 157.

Trichogramma pretiosa Riley, 1879. Canad. Ent. 11: 161. ♂ ♀.

Ttichogramma minutissimum Packard, 1881. Boston Soc. Nat. Hist. Proc. 21: 37. ♂ ♀.

Trichogramma odontotae Howard, 1885. Ent. Amer. 1: 117. ♂ ♀.

Trichogramma intermedium Howard, 1889. *In* Scudder, Butterflies of Eastern U. S. and Canada, pp. 1872, 1895. ♂ ♀.

Xanthoatomus albipes Ashmead, 1904. Carnegie Mus. Mem. 1: xi, 360. ♀.

Trichogramma pretiosa var. ***nigra*** Girault, 1906. Canad. Ent. 38: 82. ♂ ♀. N. syn.

Trichogramma helocharae Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 58.

Pentarthron euproctidis Girault, 1911. Amer. Ent. Soc. Trans. 37: 46. ♂ ♀.

Biology: Newcomer, 1915. U. S. Dept. Agr. Bul. 265: 34.—Cleare, 1928. Ent. Res. Bul. 19: 31–38.—Holloway, Haley, and Loftin, 1928. U. S. Dept. Agr. Tech. Bul. 41: 40–42, 55–56.—Wishart, 1929. Sci. Agr. 9: 616–617.—Peterson, 1929. Ent. Soc. Ontario Ann. Rpt. 59: 83–84.—Flanders, 1929 (1928). Fourth Internatl. Cong. Ent. Trans., pp. 110–130.—Hinds and Spencer, 1929 (1928). Fourth Internatl. Cong. Ent. Trans., pp. 1029–1035.—Garman, 1930 (1929). Conn. Pomol. Soc. Proc. 39: 41–43.—Garman, 1930. Conn. Agr. Expt. Sta. Bul. 313: 441–444.—Hinds and Spencer, 1930. Jour. Econ. Ent. 23: 121.—Flanders, 1931. Hilgardia 5: 395–406.—Morrill, 1931. Jour. Econ. Ent. 24: 1264–1273.—Essig, 1931. Hist. of Ent., pp. 325–329.—Crowley, 1931. Wash. Agr. Expt. Sta. Bul. 260: 68.—Schread, 1932. Conn. Agr. Expt. Sta. Bul. 338: 600–601.—Slate, 1932. Conn. Agr. Expt. Sta. Bul. 337: 462–463.—Hinds and Osterberger, 1932. Internatl. Soc. Sugar Cane Technol., Fourth Cong. Bul. 52, pt. 2.—Hinds, Osterberger, and Dugas, 1933. La. Agr. Expt. Sta. Bul. 235: 1–36.—Hinds, Osterberger, and Dugas, 1934. La. Agr. Expt. Sta. Bul. 248: 1–34.—Van Steenburgh, 1934. Canad. Jour. Res. 10: 287–314.—Nettles, 1934. S. C. Agr. Expt. Sta. Bul. 295: 25–27.—Van Steenburgh, 1935. Ent. Soc. Ontario Ann. Rpt. 65: 68–69.—Schread, 1936. Conn. Agr. Expt. Sta. Bul. 383: 344–346.—Jaynes and Bynum, 1936. Sugar Bul. 14 (19): 1–4.—Keen, 1938. U. S. Dept. Agr. Misc. Pub. 273: 71.—Smith and Garman 1938. Conn. Agr. Expt. Sta. Bul.

408: 228–230.—Jaynes and Bynum, 1941. U. S. Dept. Agr. Tech. Bul. 743: 1–42.—Douglas and Ingram, 1942. U. S. Dept. Agr. Cir. 632: 14.—Summerland and Steiner, 1943. Jour. Econ. Ent. 36: 75.—Underhill, 1943. Va. Agr. Expt. Sta. Bul. 349: 13.—McKinney, 1944. U. S. Dept. Agr. Tech. Bul. 846: 14.

Economics: Alden, 1929. Ga. State Hort. Soc. Proc. 53: 35–37.—Flanders, 1929 (1928). Fourth Internatl. Cong. Ent. Trans., pp. 110-130.—Flanders, 1930. Hilgardia 4: 465–501.—Hinds, 1933. Trav. V. Cong. Internatl. d'Ent., pp. 557–572.—Spencer, Brown and Phillips, 1935. U. S. Dept. Agr. Cir. 376: 1–17.—Garman, 1939. Conn. Agr. Expt. Sta. Bul. 428: 65–67.—Ingram and Bynum, 1941. U. S. Dept. Agr. Farmers' Bul. 1884: 8–9.—Spencer, Brown, and Phillips, 1949. U. S. Dept. Agr. Cir. 818: 1–17.

Taxonomy: Peterson, 1930. N. Y. Ent. Soc. Jour. 38: 1–7.—Peterson, 1930. U. S. Dept. Agr. Tech. Bul. 215: 1–21.—Lund, 1934. Ent. Soc. Amer. Ann. 27: 324–340.—Bare, 1935. Jour. Econ. Ent. 28: 803–815.

retorridum (Girault). Iowa, N. Mex. Host: *Protoleucania albilinea* (Hbn.).
Pentarthron retorridum Girault, 1911. Amer. Ent. Soc. Trans. 37: 52. ♂ ♀.

Biology: Webster, 1912. Jour. Econ. Ent. 5: 335.

semblidis (Aurivillius). Ont., N. Y., Sask. Hosts: *Chauliodes rastricornis* Ramb.; *Sialis infumata* Newm.; *Ephestia kühniella* Zell.; *Sitotroga cerealella* (Oliv.); *Chrysops aestuans* Wulp; *C. excitans* Wlkr.; *C. mitis* O. S.; *C. striatus* O. S.; ?*Tabanus lasiophthalmus* Macq.
Oophthora semblidis Aurivillius, 1897. Ent. Tidskr. 18: 253. ♂ ♀.

Biology: Cameron, 1926. Bul. Ent. Res. 17: 38–39.—Van Steenburgh, 1938. Ent. Soc. Ontario Ann. Rpt. 69: 74–75.—Salt, 1939 (1938). Parasitology 30: 511-522.—Salt, 1942 (1941). Cambridge Phil. Soc. Biol. Rev. 16: 249.

Genus APHELINOIDEA Girault

Aphelinoidea Girault, 1911. Amer. Ent. Soc. Trans. 37: 2.
Type: ***Aphelinoidea semifuscipennis*** Girault. Monob.

Revision: Girault, 1918. No. Amer. Hym. Trichogrammatidae, p. 9.

plutella Girault. Ill., Tex., N. Mex., Calif., Utah, Idaho. Host: *Circulifer tenellus*[8] (Baker).
Aphelinoidea plutella Girault, 1912. Ent. News 23: 296. ♂ ♀.

Biology: Henderson, 1941. U. S. Dept. Agr. Cir. 593: 1–18.

semifuscipennis Girault. Ill.
Aphelinoidea semifuscipennis Girault, 1911. Amer. Ent. Soc. Trans. 37: 4. ♀.

Genus ZAGA Girault

Zaga Girault, 1911. Amer. Ent. Soc. Trans. 37: 30.
Type: ***Zaga latipennis*** Girault. Monob.

latipennis Girault. Va. Host: Recorded from apple twigs infested with *Aspidiotus perniciosus* Comst. but probably from membracid eggs.
Zaga latipennis Girault, 1911. Amer. Ent. Soc. Trans. 37: 31. ♂.

Genus TRICHOGRAMMATOMYIA Girault

Trichogrammatomyia Girault, 1916. Canad. Ent. 48: 268.
Type: ***Trichogrammatomyia tortricis*** Girault. Monob.

tortricis Girault. Ont., N. B., N. Y. Hosts: *Archips argyrospila* (Wlkr.); *A. cerasivorana* (Fitch).
Trichogrammatomyia tortricis Girault, 1916. Canad. Ent. 48: 268. ♂ ♀.

Biology: Baird, 1918. Agr. Gaz. Canada 5: 766, 771.—Chapman, Pearce, and Avens, 1941. Jour. Econ. Ent. 34: 643–644.

Genus LATHROMEROIDES Girault

Lathromeroides Girault, 1913. Ent. News 24: 211.
Type: ***Lathromeroides longicorpus*** Girault. Monob.

Krygeriola Nowicki, 1934. Polski Pismo Ent. 12: 3.
Type: ***Krygeriola dolichoptera*** Nowicki. Monob.
Revision: Girault, 1918. No. Amer. Hym. Trichogrammatidae, p. 10.

neomexicanus Girault. N. Mex. Host: Membracid.
Lathromeroides neomexicanus Girault, 1916. Ent. News 27: 5. ♀.

Genus LATHROMERIS Foerster

Lathromeris Foerster, 1856. Hym. Stud., v. 2, pp. 87, 89.
Type: ***Lathromeris scutellaris*** Foerster. Monob.
Revision: Girault, 1918. No. Amer. Hym. Trichogrammatidae, p. 7.

scutellaris Foerster. ?W. Va. Host: Lepidopterous eggs on wild cherry twigs.
Lathromeris scutellaris Foerster, 1856. Hym. Stud., v. 2, p. 89. ♂.
Biology: Hopkins, 1893. W. Va. Agr. Expt. Sta. Bul. 32: 228.

Genus MEGAPHRAGMA Timberlake

Megaphragma Timberlake, 1924. Hawaii. Ent. Soc. Proc. 5: 413.
Type: ***Megaphragma mymaripenne*** Timberlake. Monob.
Sethosiella Kryger, 1932. Soc. Ent. d'Égypte Bul., p. 38.
Type: ***Sethosiella priesneri*** Kryger. Monob.
Revision: Ghesquière, 1939. Rev. Zool. Bot. Africaines 33: 39.

mymaripennis Timberlake. La.
Megaphragma mymaripenne (!) Timberlake, 1924. Hawaii. Ent. Soc. Proc. 5: 413. ♀.

Genus POROPOEA Foerster

Poropoea Foerster, 1851. Naturh. Ver. Rheinlande Verh. 8: 28.
Type: ***Poropoea stollwerckii*** Foerster. Monob.

attelaborum Girault. Eastern U. S. Host: *Attelabus analis* Ill.
Poropoea attelaborum Girault, 1911. Amer. Ent. Soc. Trans. 37: 68. ♂.

Genus ZAGELLA Girault

Zagella Girault, 1918. No. Amer. Hym. Trichogrammatidae, v. 2, p. 7.
Type: ***Paracentrobia flavipes*** Girault. Monob.

flavipes (Girault). D. C., Ga. Hosts: *Lestes* sp.; *?Tachypterellus quadrigibbus* (Say).
Paracentrobia flavipes Girault, 1905. Ent. News 16: 287. ♂ ♀.
Taxonomy: Girault, 1911. Amer. Ent. Soc. Trans. 37: 75. ♂ ♀.

Genus XENUFENS Girault

Xenufens Girault, 1916. Ent. News 27: 5.
Type: ***Xenufens ruskini*** Girault. Monob.

ruskini Girault. Fla. Hosts: *Calpodes ethlius* (Stoll); *Lerema accius* (A. and S.); *Urbanus proteus* (L.).
Xenufens ruskini Girault, 1916. Ent. News 27: 6. ♀.

Genus TUMIDICLAVA Girault

Tumidiclava Girault, 1911. Amer. Ent. Soc. Trans. 37: 6.
Type: ***Tumidiclava pulchrinotum*** Girault. Monob.

pulchrinotum Girault. Ill.
Tumidiclava pulchrinotum Girault, 1911. Amer. Ent. Soc. Trans. 37: 8. ♀.

Genus OLIGOSITA Haliday

Oligosita Haliday, 1851. *In* Walker, Ann. Mag. Nat. Hist. (2) 7: 212, 213.
Type: ***Oligosita collina*** Walker. Monob.
Westwoodella Ashmead, 1904. Carnegie Mus. Mem. 1: 359.
Type: ***Oligosita subfasciata*** Westwood. Monob.
Revision: Girault, 1918. No. Amer. Hym. Trichogrammatidae, pp. 8–9.

americana Girault. S. C., Ind., Ill., N. Mex. Hosts: *Dorycephalus platyrhynchus* Osb.; Cicadellid eggs in *Elymus* stems; *Halticus bracteatus* (Say); *Harmolita grandis* (Riley); *H. tritici* (Fitch); *H. neocaptiva* Peck.
Oligosita americana Girault, 1909. Psyche 16: 106. ♀.
Taxonomy: Girault, 1911. Amer. Ent. Soc. Trans. 37: 56–63. ♂ ♀.

comosipennis (Girault). N. Y.
Westwoodella comosipennis Girault, 1911. Amer. Ent. Soc. Trans. 37: 66. ♀.

marylandia Girault, emend. Md.
Oligosita marilandia Girault, 1917. Chalcidoidea Nova Marilandensis II, p. 1. ♀.

sanguinea clarimaculosa (Girault). Ill.
Westwoodella clarimaculosa Girault, 1911. Amer. Ent. Soc. Trans. 37: 67. ♀.

sanguinea claripes Girault. Ariz. Hosts: *Asphondylia milkii* Wachtl; *A. websteri* Felt.
Oligosita sanguinea var. ***claripes*** Girault, 1916. Ent. News 27: 4. ♀.

sanguinea sanguinea (Girault). D. C., Ohio, Ill. Hosts: *Oscinis* sp.; *? Harmolita* in *Eragrostis poaoides*.
Westwoodella sanguinea Girault, 1911. Amer. Ent. Soc. Trans. 37: 58. ♂ ♀.

subfasciatipennis (Girault). Wash. Host: Cicadellid in wheat.
Westwoodella subfasciatipennis Girault, 1911. Amer. Ent. Soc. Trans. 37: 63. ♂ ♀.

Genus BRACHISTA Haliday

Brachista Haliday, 1851. *In* Walker, Ann. Mag. Nat. Hist. (2) 7: 212 (no species).
Type: ***Brachysticha fidiae*** Ashmead. Included by Ashmead, 1894.
Brachysticha Foerster, 1856. Hym. Stud., v. 2, p. 88. Emend.
Giraultiola Nowicki, 1936. Ztschr. f. Angew. Ent. 23: 136.
Type: ***Brachysticha fidiae*** Ashmead. Monob.

fidiae (Ashmead). Pa., Va., Ohio. Hosts: *Magicicada septendecim* (L.); *Fidia viticida* Walsh.
Brachysticha fidiae Ashmead, 1894. Cincinnati Soc. Nat. Hist. Jour. 17: 171. ♀.
Lathromeris cicadae Howard, 1898. Canad. Ent. 30: 102. ♂ ♀.
Biology: Johnson and Hammar, 1910. U. S. Dept. Agr. Bur. Ent. Bul. 89: 51, 56–57. —Marlatt, 1898. U. S. Dept. Agr. Div. Ent. Bul. 14 (n. s.): 99.
Taxonomy: Girault, 1911. Amer. Ent. Soc. Trans. 37: 69–74.

Genus UFENS Girault

Ufens Girault, 1911. Amer. Ent. Soc. Trans. 37: 32.
Type: ***Trichogramma nigrum*** Ashmead. Monob.
Stephanotheisa Soika, 1931. Natuurh. Maandbl. 20: 111.
Type: ***Stephanotheisa vitoldi*** Soika. Monob.
Revision: Girault, 1918. No. Amer. Hym. Trichogrammatidae, p. 6.

niger (Ashmead). D. C., N. C., Fla., Ill., Tex. Hosts: *Draeculacephala mollipes* (Say); *Homalodisca* sp.; *Diatraea saccharalis* (F.).
Trichogramma nigrum Ashmead, 1888. Canad. Ent. 20: 107. ♀.
Taxonomy: Girault, 1911. Amer. Ent. Soc. Trans. 37: 35. ♂ ♀.

spiritus americanus Girault. Md.
Ufens spiritus americanus Girault, 1918. No. Amer. Hym. Trichogrammatidae, p. 6.

spiritus spiritus Girault. Md.
Ufens spiritus Girault, 1918. No. Amer. Hym. Trichogrammatidae, p. 6.

Genus HYDROPHYLITA Ghesquière

Hydrophylax Matheson and Crosby, 1912. Ent. Soc. Amer. Ann. 5: 65. Preocc.

Type: ***Hydrophylax aquivolans*** Matheson and Crosby. Monob.
Hydrophylita Ghesquière, 1946. Rev. Zool. Bot. Africaines 34: 371. N. name.

aquivolans (Matheson and Crosby), n. comb. N. Y. Host: *Ischnura* sp., probably *verticalis* (Say).
Hydrophylax aquivolans Matheson and Crosby, 1912. Ent. Soc. Amer. Ann. 5: 65. ♂ ♀.

Genus USCANA Girault

Uscana Girault, 1911. Amer. Ent. Soc. Trans. 37: 22.
Type: ***Uscana semifumipennis*** Girault. Monob.
Revision: Girault, 1918. No. Amer. Hym. Trichogrammatidae, pp. 9–10.

marylandica Girault, emend. Md. Host: *Callosobruchus maculatus* (F.).
Uscana marilandica Girault, 1918. No. Amer. Hym. Trichogrammatidae, p. 10.

semifumipennis Girault. Tex. Host: *Callosobruchus maculatus* (F.).
Uscana semifumipennis Girault, 1911. Amer. Ent. Soc. Trans. 37: 23. ♂ ♀.
Biology: Paddock and Reinhard, 1919. Tex. Agr. Expt. Sta. Bul. 256: 81–83.

Genus ABBELLA Girault

Abbella Girault, 1911. Amer. Ent. Soc. Trans. 37: 9.
Type: ***Abbella subflava*** Girault. Orig. desig.
Ittys Girault, 1911. Amer. Ent. Soc. Trans. 37: 25.
Type: ***Trichogramma ceresarum*** Ashmead. Monob.
Brachistella Girault, 1911. N. Y. Ent. Soc. Jour. 19: 184.
Type: ***Trichogramma acuminata*** Ashmead. Monob.
Jassidophthora Perkins, 1912. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 10: 17.
Type: ***Jassidophthora prima*** Perkins. Monob.
Abbellisca Ghesquière, 1946. Rev. Zool. Bot. Africaines 34: 371. N. name.
Revision: Girault, 1918. No. Amer. Hym. Trichogrammatidae, pp. 5–6, 7 (*Abbella*, *Ittys*).

acuminata (Ashmead). N. Y., Fla., Ill. Hosts: *Lestes uncatus* Kirby; *L. unguiculatus* Hagen; *Draeculacephala minor* (Wlkr.); *D. mollipes* (Say).
Trichogramma acuminatum Ashmead, 1888. Canad. Ent. 20: 107. ♂ ♀.
Brachista pallida Ashmead, 1900. Ent. News 11: 616. ♀.
Biology: Gibson, 1915. U. S. Dept. Agr. Bul. 254: 14.
Taxonomy: Girault, 1911. Amer. Ent. Soc. Trans. 37: 77.

americana Girault. Utah. Host: Cicadellid in *Elymus*.
Abbella americana Girault, 1917. U. S. Natl. Mus. Proc. 53: 445. ♂ ♀.

auriscutellum Girault. Ariz. Host: *Draeculacephala mollipes* (Say).
Abbella auriscutellum Girault, 1916. Ent. News 27: 4. ♀.
Biology: Gibson, 1915. U. S. Dept. Agr. Bul. 254: 14.

ceresarum (Ashmead), n. comb. N. S., N. J., Ohio, Ill. Hosts: *Ceresa borealis* Fairm.; *C. bubalus* (F.); *C. taurina* Fitch; *Stictocephala inermis* (F.).
Trichogramma ceresarum Ashmead, 1888. Canad. Ent. 20: 107. ♀.
Taxonomy: Girault, 1911. Amer. Ent. Soc. Trans. 37: 26–30, ♂ ♀.

nympha Girault. U. S. Hosts: Cicadellid on *Ambrosia artemisiaefolia; Diplosis* sp. on *A. artemisiaefolia*.
Abbella nympha Girault, 1911. Entomologist 44: 197. ♀.

perditrix Gahan. Ariz. Host: *Stictocephala festina* (Say).
Abbella (Ittys) perditrix Gahan, 1918. Ent. Soc. Wash. Proc. 20: 25. ♂ ♀.

prima (Perkins). Southwest U. S.
Jassidophthora prima Perkins, 1912. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 10: 18. ♂ ♀.

subflava Girault. D. C., S. C., Ill., Kans., S. Dak., Idaho, Calif., Wash. Hosts: *Blissus leucopterus* (Say); *Balclutha impicta* (Van Duzee); *Circulifer tenellus* (Baker); *Empoasca* sp.; *Halticus bracteatus* (Say); *Polynema eutettixi* (Gir).
Abbella subflava Girault, 1911. Amer. Ent. Soc. Trans. 37: 11. ♂ ♀.

Biology: McColloch, 1915. Ent. News 26: 147–148.—Stahl, 1920. Jour. Agr. Res. 20: 250.—Henderson, 1941. U. S. Dept. Agr. Cir. 593: 1–18.

Genus NEOBRACHISTELLA Girault

Neobrachistella Girault, 1912. Queensland Mus. Mem. 1: 89.
Type: *Neobrachistella maxima* Girault. Monob.
Revision: Girault, 1918. No. Amer. Hym. Trichogrammatidae, p. 11.

livii Girault. Md.
Neobrachistella livii Girault, 1918. No. Amer. Hym. Trichogrammatidae, p. 11. ♀.

Genus CENTROBIOPSIS Girault

Centrobiopsis Girault, 1918. No. Amer. Hym. Trichogrammatidae, pp. 4, 7.
Type: *Centrobia odonatae* Ashmead. Monob.

odonatae (Ashmead). N. Y., Ill. Hosts: *Lestes uncatus* Kirby; *L. unguiculatus* Hagen.
Centrobia odonatae Ashmead, 1900. Ent. News 11: 616. ♀.
Taxonomy: Girault, 1911. Amer. Ent. Soc. Trans. 37: 74, ♀.

Family EULOPHIDAE

Subfamily EULOPHINAE

Genus PNIGALIO Schrank

Pnigalio Schrank, 1802. Fauna Boica, v. 2, sec. 2, p. 315.
Type: *Ichneumon pectinicornis* Linnaeus. Monob.
Notanisomorphomyia Girault, 1913. Queensland Mus. Mem. 2: 289. N. syn.
Type: *Notanisomorphomyia albicoxa* Girault. Monob.

agromyzae agromyzae (Gahan). Maine, Md., Fla. Hosts: *Agromyza parvicornis* Loew; *Phytomyza aquilegiae* Hardy.
Sympiesis agromyzae Gahan, 1913. U. S. Natl. Mus. Proc. 46: 440. ♀.
Sympiesis wordsworthi Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 10. ♀. N. syn.

agromyzae pennsylvanicus (Girault), n. comb. N. J., Pa. Hosts: *Coptodisca kalmiella* Dietz; *Callisto geminatella* (Pack.).
Sympiesis agromyzae var. *pennsylvanicus* Girault, 1917. Descr. Stellarum Nov., p. 7. ♀.

coloni (Girault), n. comb. Calif. Host: Leaf miner on *Convolvulus*.
Sympiesis coloni Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 2. ♀.

dandoloni (Girault), n. comb. Va.
Sympiesis dandoloni Girault, 1917. New Chalcid Flies, p. 1. ♂ ♀.

felti (Crawford). Ont., N. Y., Conn. Hosts: *Agromyza melampyga* Loew; *Phytomyza ilicis* (Curt.).
Sympiesis felti Crawford, 1911. U. S. Natl. Mus. Proc. 40: 448. ♀.

flavipes (Ashmead), n. comb. Fla. Host: Rose gall.
Sympiezus flavipes Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 133. ♀.

guttiventris (Girault), n. comb. Del., D. C., La. Host: *Tischeria malifoliella* Clem.
Eulophus guttiventris Girault, 1906. Ent. News 17: 305. ♂ ♀.

kukakensis (Ashmead), n. comb. Alaska.
Eulophus kukakensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 147. ♂.

lineaticoxa (Girault). Conn., Mo., La. Hosts: *Callisto geminatella* (Pack.); *Tischeria* sp.
Eulophus lineaticoxa Girault, 1916. Soc. Ent. 31: 37. ♀.

maculipes (Crawford). Ont., Maine, Mass., N. Y., Wis. Hosts: *Coleophora pruniella* Clem.; *Cameraria hamameliella* Busck; *Lithocolletis* sp.; mines of *Cameraria hamadryadella* (Clem.) in leaves of swamp white oak; *Agromyza melampyga* Loew.
Sympiesis maculipes Crawford, 1913. U. S. Natl. Mus. Proc. 45: 258. ♂ ♀.

metacomet (Crawford), n. comb. Maine, Mass., La., Tex. Host: *Cameraria caryaefoliella* (Clem.).
Sympiesis metacomet Crawford, 1913. U. S. Natl. Mus. Proc. 45: 257. ♀.

minio (Walker), n. comb. Fla.
Eulophus Minio Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 26. ♀.

proximus (Ashmead), n. comb. W. Va., Va.
Elachistus proximus Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 340. ♀.

quercicola (Ashmead), n. comb. N. J., Ill., Kans. Host: *Caulocampus acericaulis* (MacG.).
Sympiesis quercicola Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VII. ♀.

tischeriae (Ashmead), n. comb. D. C., Ill., Mo., Kans. Hosts: *Callisto geminatella* (Pack.); *Tischeria malifoliella* Clem.
Sympiesis tischeriae Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VI. ♀.

unicarinatus (Ashmead), n. comb. W. Va., Va.
Sympiesis unicarinatus Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 343. ♀.

uroplatae (Howard), n. comb. Maine, D. C., Mich., Mo., Kans., Oreg. Hosts: *Chalepus dorsalis* Thunb.; *Baliosus ruber* (Web.); *Coleophora salmani* Heinr.; *Cameraria cincinnatiella* (Chamb.); *Gracilaria belfragella* Chamb.; *G.* sp. on pepperwood; *Rhus* leaf roller.
Sympiezus uroplatae Howard, 1885. Ent. Amer. 1: 117. ♂.
Biology: Chittenden, 1902. U. S. Dept. Agr. Div. Ent. Bul. 38: 82.
Taxonomy: Girault, 1916. Soc. Ent. 31: 37.

Genus SYMPIESIS Foerster

Sympiesis Foerster, 1856. Hym. Stud., v. 2, pp. 74, 76.
Type: ***Eulophus sericeicornis*** Nees. Orig. desig.
Sympiezus Thomson, 1878. Hym. Scand., v. 5, p. 208. Emend.
Notanisomorphella Girault, 1913. Queensland Mus. Mem. 2: 287.
Type: ***Notanisomorphella australiensis*** Girault. Orig. desig.
Pseudopheliminus Girault, 1913. Queensland Mus. Mem. 2: 286.
Type: ***Pseudopheliminus longiventris*** Girault. Monob.

ancylae Girault. N. J., Ohio, Iowa. Hosts: *Ancylis comptana* (Froel.); *A.* sp.; *Sparganothis sulfureana* (Clem.).
Sympiesis ancylae Girault, 1917. U. S. Natl. Mus. Proc. 53: 448. ♀.

argenticoxae Girault. Md., W. Va. Host: *Coleophora malivorella* Riley.
Sympiesis argenticoxae Girault, 1917 (1916). Insecutor Inscitiae Menstruus 4: 120. ♀.

bimaculatipennis (Girault). Maine, N. H., Iowa, Kans. Hosts: ?Hyperparasite of *Acleris minuta* (Rob.); *Callisto geminatella* (Pack.); *Tischeria malifoliella* Clem.
Astichus bimaculatipennis Girault, 1912. Canad. Ent. 44: 8. ♀.
Sympiesis bimaculata Crawford, 1913. U. S. Natl. Mus. Proc. 45: 259. ♀.
Taxonomy: Girault, 1917. U. S. Natl. Mus. Proc. 53: 449.

chenopodii Ashmead. Ill., Kans. Host: *Lithocolletis* mining in *Chenopodium hybridum*.
Sympiesis chenopodii Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VII.

compressicornis (Provancher), n. comb. Ont.
Coccophagus compressicornis Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 206. ♀.

conica (Provancher), n. comb. Que.
Metacolus conicus Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 200. ♀.

dolichogaster Ashmead. Ont., Maine, Fla., La., Kans., Ill. Hosts: *Episimus argutanus* (Clem.); *Gracillaria cuculipennella* (Hbn.); *G.* sp. near *violacella* Clem.
Sympiesis dolichogaster Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VII. ♀.
Taxonomy: Girault, 1916. Soc. Ent. 31: 36–37, ♀.

gracillariae (Chambers), n. comb. Ky. Host: *Gracilaria stigmatella* (F.).
Eulophus Gracillariae Chambers, 1872. Canad. Ent. 4: 28.

guttatipennis Girault. Md. Host: *Polyhymno luteostrigella* Chamb.
Sympiesis guttatipennis Girault, 1917. Descr. Stellarum Nov., p. 15. ♀.

lexingtonensis *Girault.* Maine, Ky. Host: Blotch miner of beech.
Sympiesis lexingtonensis Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 6. ♀.

marylandensis Girault. Md.
Sympiesis marylandensis Girault, 1917. Entomologist 50: 37. ♀.

marylandia Girault, emend. Md.
Sympiesis marilandia Girault, 1917. Chalcidoidea Nova Marilandensis [I], p. 1. ♀.

marylandica Girault, emend. Md.
Sympiesis marilandica Girault, 1917 (1916). Insecutor Inscitiae Menstruus 4: 119. ♀.

massasoit Crawford. Mass., Conn., Pa., Wis., Iowa, La. Hosts: *Coleophora pruniella* Clem.; *Callisto geminatella* (Pack.); *Gracilaria azaleella* Brants; *?Lithocolletis crataegella* (Clem.), mines of *Cameraria hamadryadella* (Clem.); *Tischeria malifoliella* Clem.; *Apanteles melanoscelus* (Ratz.).
Sympiesis massasoit Crawford, 1913. U. S. Natl. Mus. Proc. 45: 258. ♂ ♀.

meteori Girault. Mo. Host: *Callisto geminatella* (Pack.).
Sympiesis meteori Girault, 1916. Soc. Ent. 31: 37. ♀.

miltoni Girault. Pa.
Sympiesis miltoni Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 7. ♀.

nigrifemora Ashmead. Maine to D. C.; Mich. Ohio, Ill., Mo., Kans. Hosts: *Callisto geminatella* (Pack.); *Cameraria cincinnatiella* (Chamb.); *?Lithocolletis crataegella* (Clem.); *Tischeria malifoliella* Clem.; lepidopterous leaf miner on elm; dipterous and coleopterous leaf miners of *Ambrosia artemesiaefolia;* balsam leaf miner; oak leaf miner.
Sympiesis nigrifemora Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VII. ♀.
Sympiesis lithocolletidis Viereck, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 461.

nigripes Ashmead. Maine, N. J., Ohio, Ind., Tex., Kans. Hosts: *Cameraria caryaefoliella* (Clem.); *Lithocolletis* sp. on soft maple; *Tischeria malifoliella* Clem.; lepidopterous leaf miner of Burr Oak; *Amelanchier* blotch miner.
Sympiesis nigripes Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VII. ♂ ♀.

rex Girault. Maine, Oreg. Hosts: *Lithocolletis crataegella* (Clem.); blotch miner on willow.
Sympiesis rex Girault, 1917. New Chalcid Flies, p. 2.

stigmata Girault. Calif.
Sympiesis stigmatus Girault, 1917. Descr. Stellarum Nov., p. 15. ♀.

stigmatipennis Girault. Va., Calif. Hosts: *Gnorimoschema operculella* (Zell.); *Keiferia lycopersicella* (Busck).
Sympiesis stigmatipennis Girault, 1917. Descr. Stellarum Nov., p. 14. ♂ ♀.
Biology: Graf, 1917. U. S. Dept. Agr. Bul. 427: 33–38.

substigmata Girault. Conn.
Sympiesis substigmatus Girault, 1917. U. S. Natl. Mus. Proc. 53: 447. ♀

viridula (Thomson), n. comb. Ont., Mich., Ohio, Ind. Hosts: *Pyrausta ainsliei* Heinr.; *P. nubilalis* (Hbn.); *P. penitalis* (Grote).
Eulophus viridulus Thomson, 1878. Hym. Scand., v. 5, p. 233. ♀.

Biology: Dudich, 1928. Internatl. Corn Borer Invest. Sci. Rpt. (1): 188.—Thompson and Parker, 1928. U. S. Dept. Agr. Tech. Bul. 59: 17.—Sachtleben, 1930. Internatl. Corn Borer Invest. Sci. Rpt. 3: 52, 108–111.—Parker and Smith, 1933. Ent. Soc. Amer. Ann. 26: 21–39, ♂ ♀.—Baker and Bradley, 1940 (1939). Sixth Pacific Sci. Cong. Proc. 4: 332–333.—Wishart, 1943. Ent. Soc. Ontario Ann. Rpt. 73: 28–29.
Taxonomy: Ellinger and Sachtleben, 1928. Internatl. Corn Borer Invest. Sci. Rpt. (1): 126–129, ♂ ♀.

Genus NECREMNUS Thomson

Necremnus Thomson, 1878. Hym. Scand., v. 5, pp. 208, 234.
Type: ***Eulophus leucarthros*** Nees. Desig. by Ashmead, 1904.
Revision: Gahan, 1941. Wash. Acad. Sci. Jour. 31: 196–203.

breviramulus Gahan. Kans. Hosts: *? Hypera compta* (Say); *H. eximius* (Lec.).
Necremnus breviramulus Gahan, 1941. Wash. Acad. Sci. Jour. 31: 197, 199. ♂ ♀.

californicus (Girault). Calif.
Eulophus californicus Girault, 1917. U. S. Natl. Mus. Proc. 53: 446. ♀.

comptus Gahan. Calif.
Necremnus comptus Gahan, 1941. Wash. Acad. Sci. Jour. 31: 197, 198. ♀.

cyriades (Walker), n. comb. Fla., D. C. Host: *Hedia ochroleucana* (Hbn.).
Eulophus Cyriades Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 25. ♂.

duplicatus Gahan. Wash. Host: *Ceutorhynchus assimilis* (Payk.).
Necremnus duplicatus Gahan, 1941. Wash. Acad. Sci. Jour. 31: 197, 198, 201. ♂ ♀.
Biology: Hanson, Carlson, and Breakley, 1948. Wash. Agr. Expt. Sta. Bul. 498: 14–15.

iphinoë (Walker), n. comb. Fla.
Eulophus Iphinoë Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 25. ♂.

oregonensis Gahan. Oreg. Host: *Hypera rumicis* (L.).
Necremnus oregonensis Gahan, 1941. Wash. Acad. Sci. Jour. 31: 197, 200. ♂ ♀.

Genus HEMIPTARSENUS Westwood

Hemiptarsenus Westwood, 1833. Mag. Nat. Hist. 6: 122.
Type: ***Hemiptarsenus fulvicollis*** Westwood. Desig. by Westwood, 1840.
Hemiptarsenoideus Girault, 1916. Queensland Mus. Mem. 5: 220.
Type: ***Hemiptarsenoideus semialbiclava*** Girault. Desig. by Gahan and Fagan, 1923.

americanus (Girault),. n. comb. D. C.
Hemitarsenoideus americanus Girault, 1916. U. S. Natl. Mus. Proc. 51: 47. ♀.

calavius (Walker), n. comb. Fla.
Eulophus Calavius Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 24. ♂ ♀.

Genus PARDIAULOMELLA Girault

Pardiaulomella Girault, 1915. Queensland Mus. Mem. 3: 295.
Type: ***Pardiaulomella consonus*** Girault. Monob.

ibseni Girault. D. C., Va. Host: *Desmia funeralis* (Hbn.).
Pardiaulomella ibseni Girault, 1916. U. S. Natl. Mus. Proc. 51: 50. ♂ ♀.
Biology: Strauss, 1916. U. S. Dept. Agr. Bul. 419: 9–12.

Genus DIAULOMORPHA Ashmead

Diaulomorpha Ashmead, 1900. Linn. Soc. N. S. Wales Proc. 25: 347.
Type: ***Diaulomorpha australiensis*** Ashmead. Monob.

borrowi (Girault), n. comb. Calif.
Eulophus borrowi Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 9. ♀.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 201.

Genus SOLENOTUS Foerster

Solenotus Foerster, 1856. Hym. Stud., v. 2, pp. 74, 76.
Type: ***Solenotus viridis*** Foerster. Monob.
Diaulus Ashmead, 1904. Carnegie Mus. Mem. 1: 356, 357. Preocc.
Type: ***Diaulus begini*** Ashmead. Monob.
Solenonotus Schulz, 1906. Spolia Hym., p. 143. Emend. Preocc.
Diaulinus Schulz, 1906. Spolia Hym., p. 146. N. name.
Revision: Crawford, 1912. U. S. Natl. Mus. Proc. 43: 183–185. (*Diaulinus*).

begini (Ashmead), n. comb. N. H., N. Y., Md., Ind., Kans., N. Mex., Calif. to Idaho, Wyo. Hosts: *Agromyza parvicornis* Loew; *A. pusilla* Meig.; *A. scutellata* Fall., *Phytomyza albiceps* Meig.; *P. aquilegiae* Hardy; *P. chrysanthemi* Kow.
Diaulus begini Ashmead, 1904. Carnegie Mus. Mem. 1: 356, 372. ♀.
Biology: Webster and Parks, 1913. Jour. Agr. Res. 1: 78.—Sweetman, 1936. Biol. Control of Insects, pp. 146–147.
Taxonomy: Gahan and Peck, 1946. Wash. Acad. Sci. Jour. 36: 315.

carlylei (Girault), n. comb. Calif.
Diaulinus carlylei Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 6. ♀.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 203, ♀.

intermedius (Girault), n. comb. R. I. Host: *Phytomyza chrysanthemi* Kow.
Diaulinus intermedius Girault, 1916. Canad. Ent. 48: 265. ♀.

pulchripes (Crawford). N. Y., Md., Ind., Ill., Mich., Ont. Hosts: *Agromyza melampyga* Loew; *A. parvicornis* Loew; *A. posticata* Meig.; *Phytomyza aquilegiae* Hardy; *Macrosargus clavis* Will.
Diaulinus pulchripes Crawford, 1912. U. S. Natl. Mus. Proc. 43: 184. ♀.

websteri (Crawford), n. comb. N. Y., Kans., Ariz., Utah, Nev., Calif. Hosts: *Agromyza parvicornis* Loew; *A. pusilla* Meig.; *A. scutellata* Fall.; *Calycomyza artemisiae* (Kalt.); *Cerodonta dorsalis* Loew; *C. femoralis* Meig.; *Phytomyza obscurella* Fall.
Diaulinus websteri Crawford, 1912. U. S. Natl. Mus. Proc. 43: 184. ♂ ♀.
Biology: Webster and Parks, 1913. Jour. Agr. Res. 1: 78–79.

Genus NOTANISOMORPHA Ashmead

Notanisomorpha Ashmead, 1904. Carnegie Mus. Mem. 1: 356, 357.
Type: ***Notanisomorpha collaris*** Ashmead. Monob.

ainsliei Crawford. Ind., Colo., Utah. Hosts: *Agromyza angulata* Loew; *A. parvicornis* Loew.
Notanisomorpha ainsliei Crawford, 1912. U. S. Natl. Mus. Proc. 43: 185. ♂ ♀.

collaris Ashmead. Md.
Notanisomorpha collaris Ashmead, 1904. Carnegie Mus. Mem. 1: 356, 382. ♀.
Taxonomy: Crawford, 1912. U. S. Natl. Mus. Proc. 43: 185.—Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 2.—Gahan and Peck, 1946. Wash. Acad. Sci. Jour. 36: 316.

longifasciata Girault. Ind. Host: *Agromyza angulata* Loew.
Notanisomorpha longifasciata Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 2. ♀.

meromyzae Gahan. Ind., Kans., S. Dak. Host: *Meromyza americana* Fitch.
Notanisomorpha meromyzae Gahan, 1917. U. S. Natl. Mus. Proc. 53: 216. ♂ ♀.

nevadensis Girault. Nev.
Notanisomorpha nevadensis Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 1. ♀.

noncarinata Girault. Ariz.
Notanisomorpha noncarinata Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 1. ♀.

particola Girault. Fla.
Notanisomorpha particola Girault, 1916. Soc. Ent. 31: 42. ♀.

Genus EULOPHUS Geoffroy

Eulophus Geoffroy, 1762. Hist. Abrégé des Insectes, v. 2, p. 312.
Type: *Ichneumon ramicornis* Fabricius. Desig. by Latreille, 1810.
Comedo Schrank, 1802. Fauna Boica 2, pt. 2, p. 315.
Type: *Ichneumon larvarum* Linnaeus. Monob.
Cratotechus Thomson, 1878. Hym. Scand., v. 5, pp. 208, 219.
Type: *Ichneumon larvarum* Linnaeus. Desig. by Ashmead, 1904.
Cratotrechus Dalla Torre, 1898. Cat. Hym., v. 5, p. 55. Emend.
Revision: Crawford, 1912. U. S. Natl. Mus. Proc. 43: 186–188 (*Comedo*).

anomocerus (Crawford), n. comb. Conn., N. J., W. Va. Hosts: *Schizura unicornis* (A. and S.); *Anthophila pariana* (Clerck).
Comedo anomocerus Crawford, 1912. U. S. Natl. Mus. Proc. 43: 187. ♂ ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 81, 154.

basalis Say. Ind., Mo.
Eulophus basalis Say, 1836. Boston Jour. Nat. Hist. 1: 273. ♀.
Comedo omari Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 9. ♀. N. syn.

brevicapitatus (Cook and Davis), n. comb. Que., Mass., Mich., La. Hosts: *Euplexia benesimilis* McD.; *Heterocampa bilineata* (Pack.); *H. manteo* (Dbldy.); *Symmerista albifrons* (A. and S.).
Cratotechus brevicapitatus Cook and Davis, 1891. Mich. Agr. Expt. Sta. Bul. 73: 12. ♂ ♀.
Biology: Dimmock, 1898. Ent. Soc. Wash. Proc. 4: 150.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 154.

koebelei (Crawford), n. comb. Calif. Host: *Hemerocampa vetusta* (Bdvl.).
Comedo koebelei Crawford, 1912. U. S. Natl. Mus. Proc. 43: 187. ♀.

magnisulcatus Girault. N. J., W. Va. Host: *Coleophora malivorella* Riley.
Eulophus magnisulcatus Girault, 1916. Ent. News 27: 404. ♀.

nebulosus (Provancher), n. comb. Ont., Mass., Va. Hosts: *Amphipyra pyramidoides* Guen.; *Lithophane* sp.
Miotropis nebulosa Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 208. ♀.
Comedo hookeri Crawford, 1912. U. S. Natl. Mus. Proc. 43: 188. ♀. N. syn.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 49, 154.

neomexicanus (Girault), n. comb. N. Mex.
Comedo neomexicanus Girault, 1917. New Chalcid Flies, p. 4.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 201.

orgyiae (Fitch), n. comb. Ont., N. Y., N. J., Pa., N. C. Hosts: *Hemerocampa leucostigma* (A. and S.); *Stenoma algidella* (Wlkr.).
Trichogramma? orgyiae Fitch, 1856. Country Gentleman 7: 235.
Taxonomy: Fitch, 1856. N. Y. State Agr. Soc. Trans. 15: 448–449.—Howard, 1897. U. S. Dept. Agr., Div. Ent., Tech. Ser. 5: 28.—Girault, 1920. U. S. Natl. Mus. Proc. 58: 201.

pallipes (Provancher), n. comb. Ont., N. H., Mass., Md. Hosts: *Paonias excaecata* (A. and S.); *Amphipyra pyramidoides* Guen.
Caccophagus (!) *pallipes* Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 206. ♀.
Cratotechus smerinthi Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 158. ♂ ♀. N. syn.
Coccophagus pallidipes Provancher. Dalla Torre, 1898. Cat. Hym., v. 5, p. 226. Emend.
Biology: Dimmock, 1898. Ent. Soc. Wash. Proc. 4: 150.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 52, 154.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 201.

tricladus Provancher. Ont., N. Y., Mich. Hosts: *Cameraria cincinnatiella* (Chamb.); *Tischeria malifoliella* Clem.
Eulophus tricladus Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 208. ♂ ♀.

Genus DAHLBOMINUS Hincks

Microplectron Dahlbom, 1857. Öfvers. Svenska Vetensk. Akad. Förh. 14: 292 (no species). Preocc.
Type: ***Entedon fuscipennis*** Zetterstedt. Included by Thomson, 1878.
Dahlbominus Hincks, 1945. Entomologist 78: 90. N. name.

fuscipennis (Zetterstedt). Newfoundland to Conn., N. Y., Que., and Ont. Hosts: *Diprion frutetorum* (F.); *D. hercyniae* (Htg.); *D. similis* (Htg.).
Entedon fuscipennis Zetterstedt, 1838. Insecta Lapponica, p. 427 [*recte* 429]. ♀.
Biology: Morris and Cameron, 1935. Bul. Ent. Res. 26: 407–418. ♂ ♀.—Ullyett, 1936. Bul. Ent. Res. 27: 195–217.—Ullyett, 1936. Roy. Soc. London, Proc. Ser. B 120: 253–291.—Dowden, 1939. Jour. Econ. Ent. 32: 623.—Miller, 1940. U. S. Bur. Ent. Plant Quar. ET-161: 1–5.—Balch, 1941 (1940). N. S. Dept. Lands and Forests Rpt., pp. 72–74.—Wilkes, 1942. Roy. Soc. London, Proc. Ser. B 130: 400–415.—Wilkes, 1947. Roy. Soc. London, Proc. Ser. B 134: 227–245.

Genus DIMMOCKIA Ashmead

Dimmockia Ashmead, 1904. Carnegie Mus. Mem. 1: 357.
Type: ***Eulophus incongruus*** Ashmead. Monob.
Crateulophus Masi, 1917. Novitates Zool. 24: 206.
Type: ***Crateulophus niger*** Masi. Monob.

incongrua (Ashmead). Ont., Mass., N. Y., Pa., N. C., Ill. Hosts: *Sphecodina abbotii* (Swains.); *Sparganothis pettitana* (Rob.); *Exorista larvarum* (L.); *Winthemia datanae* (Tsn.); *?Alegina annulata* Ashm.; *?Gelis tenellus* (Say); *Sphecophaga burra* Cress.; *Apanteles clisiocampae* Ashm.; *A. congregatus* (Say); *A. melanoscelus* (Ratz.); *Psychophagus omnivorus* (Wlkr.).
Eulophus incongruus Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 158. ♂ ♀.
Dimmockia botticellini Girault, 1917. New Chalcid Flies, p. 2. N. syn.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 12, 29–30.—Proper, 1934. Jour. Agr. Res. 48: 362.
Morphology: Snodgrass, 1910. U. S. Natl. Mus. Proc. 39: 66.

marylandica Girault. Md.
Dimmockia marylandica Girault, 1920. U. S. Natl. Mus. Proc. 58: 202. ♀.

pallipes Muesebeck. Mass. Host: *Apanteles melanoscelus* (Ratz.).
Dimmockia pallipes Muesebeck, 1927. Jour. Agr. Res. 34: 333. ♂ ♀.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 12, 30.

Genus DICLADOCERUS Westwood

Dicladocerus Westwood, 1832. London, Edinb., and Dublin Phil. Mag. and Jour. Sci. (3) 1: 128.
Type: ***Dicladocerus westwoodii*** Westwood, Monob.

albitarsis (Ashmead), n. comb. D. C.
Eulophus albitarsis Ashmead, 1900. Ent. News 11: 623. ♀.

dicladus (Say), n. comb. Ind.
Eulophus dicladus Say, 1836. Boston Jour. Nat. Hist. 1: 273. ♀.

westwoodii Westwood. Ont. Host: *Coleophora laricella* (Hbn.).
Dicladocerus Westwoodii Westwood, 1832. London, Edinb. and Dublin Phil. Mag and Jour. Sci. (3) 1: 128.
Biology: Thorpe, 1933. Bul. Ent. Res. 24: 277–280.—Graham, 1944. Ent. Soc. Ontario Ann. Rpt. 74: 50–51.
Taxonomy: Ferrière, 1933. *In* Thorpe, Bul. Ent. Res. 24: 290.

Subfamily APHELININAE

Revisions: Mercet, 1912. Trab. Mus. Cien. Nat., Madrid 10: 1–306.—Mercet, 1929. Rev. Biol. Forest. y Limnologia (B) 1: 1–99.—De Santis, 1948. La Plata Mus. Rev. Zool. (n. s.) 5: 23–280.

Genus ERETMOCERUS Haldeman

Eretmocerus Haldeman, 1850. Amer. Jour. Sci. Arts (2) 9: 111.
Type: ***Eretmocerus corni*** Haldeman. Monob.

Revisions: Dozier, 1932. Ent. Soc. Wash. Proc. 34: 112–118.—Compere, 1936. Calif. Univ., Pubs., Ent. 6: 316–321.

californicus Howard. Calif. Host: *Aleyrodes* on *Quercus agrifolia*.
Eretmocerus californicus Howard, 1895. U. S. Dept. Agr. Div. Ent. Tech. Ser. 1: 16. ♂ ♀.

corni Haldeman. N. J., Pa. Hosts: *Tetraleurodes corni* (Hald.); *Trialeurodes packardi* (Morrill).
Eretmocerus corni Haldeman, 1850. Amer. Jour. Sci. Arts (2) 9: 110.

Taxonomy: Howard, 1895. U. S. Dept. Agr. Div. Ent. Tech. Ser. 1: 16.

haldemani Howard. Fla., Miss., Calif. Hosts: *Aleyrodes* spp. on *Ambrosia*, on *Erigonum*, on *Hardinbergia*, on *Quercus*, and on *Solidago*; *Aleuroplatus coronatus* (Quaint.); *Aleurothrixus floccosus* Mask.; *Trialeurodes vaporariorum* (Westw.).
Eretmocerus haldemani Howard, 1908. Ent. Soc. Wash. Proc. 10: 65. ♂ ♀.

Biology: Watson and Berger, 1932. Fla. Agr. Expt. Sta. Ext. Bul. 67: 56–57.—Watson and Berger, 1937. Fla. Agr. Expt. Sta. Ext. Bul. 88: 53–55.

illinoisensis Dozier. Ill.
Eretmocerus illinoisensis Dozier, 1932. Ent. Soc. Wash. Proc. 34: 115. ♂.

Genus EUDEROMPHALE Girault

Euderomphale Girault, 1916. Canad. Ent. 48: 410.
Type: (***Euderomphale fuscipennis*** Girault)=[***Gyrolasia***] ***flavimedia*** (Howard). Monob.
Aleurodiphagus Nowicki, 1929. Neue Beitr. System. Insektenk. 4: 154.
Type: ***Pteroptrix flavimedia*** Howard. Present desig.

Revision: Dozier, 1932. Ent. Soc. Wash. Proc. 34: 120.

flavimedia (Howard). Md., N. Mex., Calif. Hosts: *Aleyrodes pruinosa* Bernis; *A. spiraeoides* Quaint.; *A.* spp. on *Aquilegia*, on *Fuchsia*, on *Iris*, on *Sambucus*, on *Sonchus*, on *willow*.
Gyrolasia flavimedia Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 369. ♂.
Euderomphale fuscipennis Girault, 1916. Canad. Ent. 48: 410. ♀.

quercicola Dozier. La. Host: *Tetraleurodes* sp. on *Quercus virginiana*.
Euderomphale quercicola Dozier, 1933. Ent. Soc. Wash. Proc. 35: 85. ♂ ♀.

Genus ARCHENOMUS Howard

Archenomus Howard, 1898. Ent. Soc. Wash. Proc. 4: 136.
Type: ***Archenomus bicolor*** Howard. Monob.

bicolor Howard. Ga., cosmopolitan. Host: *Aspidiotus* sp. on sweet gum.
?Pteroptrix dimidiatus Westwood, 1833. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 3: 344.
Archenomus bicolor Howard, 1898. Ent. Soc. Wash. Proc. 4: 137. ♂ ♀.

Genus CENTRODORA Foerster

Centrodora Foerster, 1878. Naturh. Ver. Rheinlande Verh. 35: 66.
Type: ***Centrodora amoena*** Foerster. Monob.
Paraphelinus Perkins, 1906. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 264.
Type: ***Paraphelinus xiphidii*** Perkins. Monob.

speciosissima (Girault). N. Y. to Va., Ky., and Ill. Hosts: *Conocephalus fuscus* (F.); *C.* sp.; *Phytophaga destructor* (Say); *Platygaster vernalis* (Myers); *Harmolita tritici* (Fitch).

?Agonioneurus locustarum Giraud, 1863. Zool.-Bot. Gesell. Wien. Verh. 13: 1278. ♂ ♀.

?Centrodora amoena Foerster, 1878. Naturh. Ver. Rheinlande Verh. 35: 67. ♂ ♀.

Paraphelinus speciosissimus Girault, 1911. N. Y. Ent. Soc. Jour. 19: 181. ♀.

Biology: Hill and Smith, 1928. Jour. Agr. Res. 36: 153–155.
Taxonomy: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 124–128, ♂ ♀.
Morphology: Hill and Pinckney, 1940. U. S. Dept. Agr. Tech. Bul. 715: 5, 11–13.

Genus MARIETTA Motschulsky

Marietta Motschulsky, 1863. Moskov. Obshch. Isp. Prirody 36 (2): 51.
Type: ***Marietta leopardina*** Motschulsky. Monob.

Perissopterus Howard, 1895. U. S. Dept. Agr. Div. Ent. Tech. Ser. 1: 20.
Type: ***Aphelinus pulchellus*** Howard. Orig. desig.

Pseudaphelinus Brèthes, 1918. Soc. Rur. Argentina An. 53: 157.
Type: ***Pseudaphilinis caridei*** Brèthes. Monob.

Paraphytis Compere, 1925. Amer. Ent. Soc. Trans. 51: 129.
Type: ***Paraphytis vittata*** Compere. Monob.

Revision: Compere, 1936. Calif. Univ., Pubs., Ent. 6: 306–315.

carnesi (Howard). Del., Va., ?Calif. Hosts: *Aspidiotus perniciosus* Comst.; *Lepidosaphes beckii* (Newm.); *Comperiella bifasciata* How.

Perissopterus carnesi Howard, 1910. Ent. News 21: 162. ♀.

javensis (Howard). Asia, ?Calif. Hosts: *Coccophagus lycimnia* (Wlkr.); *Microterys flavus* (How.).

Perissopterus javensis Howard, 1907. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 12: 87, 88. ♂ ♀.

Biology: Timberlake, 1913. Jour. Econ. Ent. 6: 300

mexicana (Howard). Pa., Va., Calif. Hosts: *Aspidiotus perniciosus* Comst.; *Coccus hesperidum* L.; *Lecaniodiaspis rufescens* (Ckll.); *Lecanium nigrofasciatum* Perg.; *Lepidosaphes ulmi* (L.); *Aphycus lounsburyi* How.

Perissopterus mexicanus Howard, 1895. U. S. Dept. Agr. Div. Ent. Tech. Ser. 1: 21. ♂ ♀.

Biology: Smith, 1933. Ent. Soc. Amer. Ann. 26: 525.—Essig, 1931. A Hist. of Ent., pp. 348–349, 354.—Flanders, 1940. Ent. Soc. Amer. Ann. 33: 252.—Cox, 1942. Jour. Econ. Ent. 35: 700–701.

pulchella (Howard). Que., R. I., N. Y., N. J., D. C., Ill., Mo., La., Nebr., Mont., Calif., B. C. Hosts: *Aspidiotus forbesi* Johns.; *A. juglans-regiae* Comst.; *A. perniciosus* Comst.; *Chionaspis americana* Johns.; *Lecaniodiaspis* sp. on *Tilia americana*; *L.* sp. on willow; *Phenacaspis pinifoliae* (Fitch); *Prosopophora* on cottonwood; *Pseudaulacaspis pentagona* (Targ.).

Aphelinus pulchellus Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 356. ♀.

Biology: Felt, 1916. N. Y. State Mus. Bul. 180: 84.

Genus APHYTIS Howard

Aphytis Howard, 1900. Canad. Ent. 32: 168.
Type: ***Aphytis chilensis*** Howard. Monob.

Prospaphelinus DeGregorio, 1914. Agr. Siciliana Ann. 3 (4): 406.
Type: ***Prospaphelinus silvestrii*** DeGregorio. Monob.

Revision: Mercet, 1932. Eos 8: 353–365.

abnormis (Howard). N. J., D. C. Hosts: *Lepidosaphes ulmi* (L.); *L.* sp. on *Salix caprea*.

Aphelinus abnormis Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, pp. 353, 355. ♀.

chilensis Howard. Calif. Hosts: *Aspidiotus camelliae* Sign.; *A. hederae* (Vallot); *A.* sp. on *Pinus radiata; Diaspis zamiae* Morg.; *Phenacaspis pinifoliae* (Fitch).

Aphytis Chilensis Howard, 1900. Canad. Ent. 32: 168. ♀.

Aphelinus longiclavae Mercet, 1911. Assoc. Españ. Prog. Cien., Cong. Valencia, p. 14. ♂ ♀.

Aphelinus capitis Rust, 1915. Ent. News 26: 73. ♀.

Taxonomy: Gahan, 1924. U. S. Natl. Mus. Proc. 65 (4): 11.

chrysomphali (Mercet). N. Y., Fla., La., Calif. Hosts: *Aonidiella aurantii* (Mask.), *A. citrina* (Coq.); *Chrysomphalus dictyospermi* (Morg.); *C. umboniferus* Newst.

Aphelinus chrysomphali Mercet, 1912. Soc. Españ. Hist. Nat. Bol. 12: 135. ♀.

Aphelinus quaylei Rust, 1915. Ent. News 26: 75. ♀.

Biology: Quayle, 1932. Calif. Agr. Expt. Sta. Bul. 542: 31–33.—Woglum, LaFollette, Landon, and Lewis, 1947. Jour. Econ. Ent. 40: 818–819.

Taxonomy: De Santis, 1948. La Plata Mus. Rev. Zool. (n. s.) 5: 122–126, ♀.

mytilaspidis (LeBaron). Cosmopolitan. Hosts: *Aspidiotus britannicus* Newst.; *A. hederae* (Vallot); *A. juglans-regiae* Comst.; *A. ostreaeformis* Curt.; *A. perniciosus* Comst.; *Aulacaspis rosae* (Bouché); *Chionaspis furfura* (Fitch); *C. salicis-nigrae* (Walsh); *Diaspis carueli* Targ.; *Lepidosaphes ulmi* L.; *L.* sp. on *Ptelia trifoliata; Parlatoria blanchardii* (Targ.); *Phenacaspis pinifoliae* (Fitch); *P. pinifoliae* var. *heterophyllae* Cooley; *Pinnaspis aspidistrae* (Sign.).

Aphelinus mytilaspidis LeBaron, 1870. Amer. Ent. and Bot. 2: 360. ♀.

Biology: Imms, 1916. Quart. Jour. Micros. Sci. 61: 218–272, ♂ ♀.—Griswold, 1925. N. Y. (Cornell) Agr. Expt. Sta. Mem. 93: 44–47, 56–67.—Essig, 1931. A Hist. of Ent., p. 339.—Lord, 1949 (1947). Canad. Ent. 79: 196–208.

proclia (Walker). Cosmopolitan. Hosts: *Aonidiella aurantii* (Mask.); *Aspidiotus camelliae* Sign.; *A. destructor* Comst.; *A. hederae* (Vallot); *A. juglans-regiae* Comst.; *A. ostreaeformis* Curt.; *A. perniciosus* Comst.; *A. uvae* Comst.; *Aulacaspis rosae* (Bouché); *Chrysomphalus aonidum* (L.); *C. dictyospermi* (Morg.); *Diaspis bromeliae* (Kern.); *D. echinocacti* (Bouché); *Lepidosaphes beckii* (Newm.); *L. gloveri* (Pack.); *L. ulmi* (L.); *Pinnaspis strachani* (Cooley); *Pseudaonidia duplex* (Ckll.); *Pseudaulacaspis pentagona* (Targ.); *Unaspis euonymi* (Comst.).

Aphelinus Proclia Walker, 1839. Monog. Chalciditum, v. 1, p. 9. ♀.

Aphelinus diaspidis Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 355. ♂ ♀.

Aphelinus fuscipennis Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 356. ♀.

Biology: Smith, 1897. N. J. Agr. Expt. Sta. Ann. Rpt. 17: 483–519.—Quayle, 1911. Calif. Agr. Expt. Sta. Bul. 214: 463–466.—Essig, 1931. A Hist. of Ent., pp. 339–341.

Taxonomy: De Santis, 1948. La Plata Mus. Rev. Zool. (n. s.) 5: 133–138, ♂ ♀.

Genus APHELINUS Dalman

Aphelinus Dalman, 1820. Svenska Vetensk. Akad. Handl. 21: 181.
Type: ***Entedon abdominalis*** Dalman. Monob.

Agonioneurus Westwood, 1833. Mag. Nat. Hist. 6: 122.
Type: ***Agonioneurus basalis*** Westwood. Monob.

Myina Nees, 1834. Hym. Ichn. Aff. Monog., v. 2, p. 189.
Type: ***Myina abdominalis*** Nees. Desig. by Gahan and Fagan, 1923.

Eriophilus Haldeman, 1851. Pa. Farm Jour. 1: 130.
Type: ***Eriophilus mali*** Haldeman. Monob.

Misina Rondani, 1870. Arch. Zool., Anat. e Fisiol. (2) 2: 11. Error for *Myina*.

aureus Gahan. Calif. Host: *Chaitophorus saliciola* Essig.

Aphelinus aureus Gahan, 1924. U. S. Natl. Mus. Proc. 65 (4): 9. ♂ ♀.

automatus Girault. Ill. Host: *Hysteroneura setariae* (Thos.).

Aphelinus automatus Girault, 1911. Entomologist 44: 178. ♀.

howardii Dalla Torre. Calif.

Aphelinus flaviceps Howard, 1895. U. S. Dept. Agr. Div. Ent. Tech. Bul. 1: 25. ♂. Preocc.

Aphelinus howardii Dalla Torre, 1898. Cat. Hym., v. 5, p. 221. N. name.

jucundus Gahan. Ont., Que., N. Y., Calif. Hosts: *Macrosiphum cornelli* Patch; *M. pseudodirhodum* Patch; *M. solanifolii* (Ashm.); *Myzus persicae* (Sulz.).
Aphelinus jucundus Gahan, 1924. U. S. Natl. Mus. Proc. 65 (4): 8. ♀.
Biology: Griswold, 1927. Jour. Econ. Ent. 20: 93.—Griswold, 1929. Ent. Soc. Amer. Ann. 22: 440.

lapisligni Howard. Idaho, Oreg. Host: *Anuraphis bakeri* (Cowen).
Aphelinus lapisligni Howard, 1917. Biol. Soc. Wash. Proc. 30: 77. ♀.
Biology: Smith, 1923. Idaho Agr. Expt. Sta. Res. Bul. 3: 55–57.

mali (Haldeman). Throughout U. S.; Ont., B. C., cosmopolitan. Hosts: *Aphis monardae* Oestl.; *A. pomi* Deg.; *Brevicoryne brassicae* (L.); *Colopha eragrostidis* Midd.; *Eriosoma crataegi* Oestl.; *E. lanigerum* (Hausm.); *Macrosiphum floridae* Ashm.; *M. rosae* (L.); *Myzus lythri* Schrank; *Prociphilus fraxinifolii* (Riley;) *Tetraneura graminis* Monell; *Toxoptera graminum* (Rond.); *Lepidosaphes ulmi* (L.); *Coleophora malivorella* Riley.
Eriophilus mali Haldeman, 1851. Pa. Farm Jour. 1: 130. ♂ ♀.
Blastothrix rosae Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 130. ♀.
Aphelinus varicornis Girault, 1909. Psyche 16: 29. ♀.
Biology: Lundie, 1924. N. Y. (Cornell) Agr. Expt. Sta. Mem. 79: 1–27.—Gibson, 1939. VII. Internatl. Kong. Ent. Verhandl. 3: 1454.
Taxonomy: De Santis, 1948. La Plata Mus. Rev. Zool. (n. s.) 5: 103.

marlatti (Ashmead). Ont., Kans. Host: *Aphis* sp. on *Cineraria*.
Baeocharis Marlatti Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. V. ♂ ♀.
Aphelinus subapterus Girault, 1916. Ent. News 27: 405. ♂.
Biology: McLeod, 1938. Ent. Soc. Ontario Ann. Rpt. 68: 45–48.
Taxonomy: Gahan, 1924. U. S. Natl. Mus. Proc. 65 (4): 12.

nigritus (Howard). Minn., S. C., N. Mex., Kans. Hosts: *Hysteroneura setariae* (Thos.); *Toxoptera graminum* (Rond.); *Pseudococcus* on *Artemisia*.
Aphelinus nigritus Howard, 1908. Ent. News 19: 366. ♀.
Biology: Webster and Phillips, 1912. U. S. Dept. Agr. Bur. Ent. Bul. 110: 123.

perpallidus Gahan. Iowa, Calif. Hosts: *Monellia costalis* (Fitch); *M.* sp. on hickory; *Chromaphis juglandicola* (Kltb.); *Myzocallis fumipennellus* (Fitch).
Aphelinus perpallidus Gahan, 1924. U. S. Natl. Mus. Proc. 65 (4): 10. ♂ ♀.

sanborniae Gahan. Pa., Ohio. Hosts: *Kakimia houghtonensis* (Troop); *Sanbornia juniperi* (Perg.).
Aphelinus sanborniae Gahan, 1924. U. S. Natl. Mus. Proc. 65 (4): 7. ♂ ♀.

semiflavus Howard. N. Y., Ohio, Ind., Okla., N. Mex., Colo., Kans., Minn. Hosts: *Anuraphis viburnicola* (Gill.); *Capitophorus rosarum* (Kltb.); *Chaitophorus viminalis* Monell; *Macrosiphum cornelli* Patch; *M. granarium* (Kby.); *M. pisi* (Kltb.); *M. sanborni* Gill.; *Myzus persicae* (Sulz.); *M.* sp. on *Aquilegia*; *Rhopalosiphum poae* (Gill.); *R. pseudobrassicae* (Davis); *Toxoptera graminum* (Rond.).
Aphelinus semiflavus Howard, 1908. Ent. News 19: 366. ♂ ♀.
Aphelinus brevipennis Girault, 1917. Descr. Stellarum Nov., p. 18. ♀.
Biology: Hartley, 1922. Ohio Jour. Sci. 22: 209–236, ♀.

siphonophorae (Ashmead), n. comb. N. J., No. Amer. Host: *Macrosiphum* sp.
Anozus siphonophorae Ashmead, 1888. Canad. Ent. 20: 104. ♀.

Genus MESIDIA Foerster

Mesidia Foerster, 1856. Hym. Stud., v. 2, p. 30 (no species).
Type: ***Mesidia pumila*** Mayr. Included by Mayr, 1904.

gillettei Howard. Ill., Colo. Host: *Brachycolus tritici* Gill.
Mesidia gillettei Howard, 1914. Ent. Soc. Wash. Proc. 16: 80. ♀.
Taxonomy: Dozier, 1933. Ent. Soc. Wash. Proc. 35: 90. ♀.

Genus ABLERUS Howard

Ablerus Howard, 1894. U. S. Dept. Agr. Insect Life 7: 7.
Type: ***Centrodora clisiocampae*** Ashmead. Monob.

americanus Girault. D. C. Host: *Aspidiotus uvae* Comst.
Ablerus americanus Girault, 1916. Soc. Ent. 31: 44. ♀.

clisiocampae (Ashmead). Ont., N. Y. and Mass. to Fla.; La., and Minn. Hosts: *Aspidiotus forbesi* Johns.; *A. perniciosus* Comst.; *A. uvae* Comst.; *Chionaspis furfura* (Fitch); *Chrysomphalus obscurus* (Comst.); *Pseudaulacaspis pentagona* (Targ.); *Malacosoma americanum* (F.); *M. disstria* Hbn.
Centrodora clisiocampae Ashmead, 1894. Ent. Soc. Wash. Proc. 3: 10. ♀.
Biology: Baker, 1933. U. S. Dept. Agr. Cir. 295: 8–9.—Hodson, 1939. Ent. Soc. Amer. Ann. 32: 131.

perspeciosus Girault. D. C. Hosts: *Chrysomphalus aonidum* (L.); *Pseudaulacaspis pentagona* (Targ.).
Ablerus perspeciosus Girault, 1916. Ent. Soc. Amer. Ann. 9: 292. ♀.
Azotus silvestrii Compere, 1926. Calif. Univ., Pubs., Ent. 4: 9. ♀.
Taxonomy: Gahan, 1942. U. S. Natl. Mus. Proc. 92: 47.

Genus AZOTUS Howard

Azotus Howard, 1898. Ent. Soc. Wash. Proc. 4: 138.
Type: ***Azotus marchali*** Howard. Monob.
Dimacrocerus Brèthes, 1914. Nunquam Otiosus, Buenos Aires, p. 4.
Type: ***Dimacrocerus platensis*** Brèthes. Monob.

americanus Dozier. Del. Hosts: *Aspidiotus perniciosus* Comst.; *?Lecanium corni* Bouché; *?Lepidosaphes ulmi* (L.).
Azotus americanus Dozier, 1928. Ent. Soc. Wash. Proc. 30: 36. ♂.

marchali Howard. D. C. Host: *Aspidiotus uvae* Comst.
Azotus marchali Howard, 1898. Ent. Soc. Wash. Proc. 4: 138. ♂.

Genus TUMIDISCAPUS Girault

Tumidiscapus Girault, 1911. N. Y. Ent. Soc. Jour. 19: 182.
Type: ***Tumidiscapus flavus*** Girault. Monob.
Revision: Milliron, 1947. Ent. Soc. Wash. Proc. 49: 195–196.

cercopiphagus Milliron. Wis. Host: *Aphrophora saratogensis* (Fitch).
Tumidiscapus cercopiphagus Milliron, 1947. Ent. Soc. Wash. Proc. 49: 193. ♂ ♀.

flavus Girault. Pa., S. Dak., Iowa, Ill., Tenn. Hosts: *Orchelimum vulgare* Harris; *Phytophaga destructor* (Say); *Lasioptera* sp. on *Muhlenbergia*.
Tumidiscapus flavus Girault, 1911. N. Y. Ent. Soc. Jour. 19: 182. ♂.
Taxonomy: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 121–124, ♂ ♀.

orchelimumis Gahan. Pa., Va., Ill. Host: *Orchelimum vulgare* Harris.
Tumidiscapus orchelimumis Gahan, 1932. Ent. Soc. Amer. Ann. 25: 741. ♂ ♀.

orthopterae Gahan. Fla. Host: Tettigoniid eggs on *Andropogon glomeratus*.
Tumidiscapus orthopterae Gahan, 1919. U. S. Natl. Mus. Proc. 55: 406. ♂ ♀.

Genus PHYSCUS Howard

Physcus Howard, 1895. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 1: 43.
Type: ***Coccophagus varicornis*** Howard. Monob.
Revision: De Santis, 1940 (1939). La Plata Univ. Nac., Facultad de Agron. Rev. 24: 29–44.

howardi Compere. Calif. Host: *Aspidiotus californicus* Col.
Physcus howardi Compere, 1928. Calif. Univ., Pubs., Ent. 4: 223. ♂ ♀.

stanfordi Howard. Calif. Host: *Stramenaspis kelloggi* Col.
Physcus stanfordi Howard, 1914. Ent. Soc. Wash. Proc. 16: 84. ♀.

varicornis (Howard). Que. to Fla., Calif., Nebr. Hosts: *Aspidiotus ancylus* (Putn.); *A. juglans-regiae* Comst.; *A. perniciosus* Comst.; *A. uvae* Comst.; *Chionaspis americana* Johns.; *C. furfura* (Fitch); *C. quercus* Comst.; *Chrysomphalus obscurus* (Comst.); *Lecanium nigrofasciatum* Perg.; *Phenacaspis pinifoliae* (Fitch).
Coccophagus varicornis Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880. p. 360. ♀.

Physcus variicornis Howard. Dalla Torre, 1898. Cat. Hym., v. 5, p. 226. Emend.
Biology: Baker, 1933. U. S. Dept. Agr. Cir. 295: 8–9.
Taxonomy: Girault, 1911. N. Y. Ent. Soc. Jour. 19: 183, ♂.

Genus PROSPALTELLA Howard

Prospalta Howard, 1894. U. S. Dept. Agr. Insect Life 7: 6. Preocc.
Type: (***Prospalta murtfeldtii*** Howard)=***Prospaltella murtfeldtae*** (Howard). Monob.
Prospaltella Ashmead, 1904. Ent. Soc. Wash. Proc. 6: 126. N. name.
Mimatomus Cockerell, 1911. Ent. News 22: 464.
Type: ***Mimatomus peltatus*** Cockerell. Monob.
Revision: Howard, 1908. Ent. Soc. Amer. Ann. 1: 281–284.

aurantii (Howard). Cosmopolitan. Hosts: *Aonidiella aurantii* (Mask.); *A. citrina* (Coq.); *Aspidiotus ancylus* (Putn.); *A. ancylus* var. on linden; *A. camelliae* Sign.; *A. californicus* Col.; *A. forbesi* Johns.; *A. hederae* (Vallot); *A. howardi* Ckll.; *A. juglans-regiae* Comst.; *A. perniciosus* Comst.; *Chionaspis* sp.; *Chrysomphalus dictyospermi* (Morg.); *Kermes nigropunctatus* Ckll.; *Lecanium corni* Bouché; *L. nigrofasciatum* Perg.; *L. persicae* (F.); *Lepidosaphes beckii* (Newm.); *L. concolor* (Ckll.); *L. gloverii* (Pack.); *L. ulmi* (L.); *Pseudaonidia duplex* (Ckll.); *Aleuroplatus coronatus* Quaint.
Coccophagus aurantii Howard, 1894. U. S. Dept. Agr. Insect Life 6: 231. ♀.
Biology: Taylor, 1907. Colo. Agr. Expt. Sta. Bul. 120: 10.—Essig, 1913. Calif. State Comn. Hort. Monthly Bul. 2: 276.—Griffiths and Stearns, 1947. Fla. Ent. 30: 4–7.
Taxonomy: Rust, 1913. Ent. News 24: 161.

bella Gahan. Mich. Host: *Phenacaspis pinifoliae* (Fitch).
Prospaltella bella Gahan, 1927. U. S. Natl. Mus. Proc. 71 (4): 21. ♂ ♀.

berlesei (Howard). D. C., La. Hosts: *Chrysomphalus obscurus* (Comst.); *Pseudaulacaspis pentagona* (Targ.).
Prospalta berlesei Howard, 1906. Ent. News 17: 292. ♀.
Biology: Baker, 1933. U. S. Dept. Agr. Cir. 295: 8–9.
Taxonomy: Silvestri, 1908. Lab. Zool. Gen. e Agr. Portici Bol. 3: 22–28.—Masi, 1908. Lab. Zool. Gen. e Agr. Portici Bol. 3: 143–146.
Morphology: Snodgrass, 1910. U. S. Natl. Mus. Proc. 39: 66.

citrella Howard. Fla., Ariz., Calif. Hosts: *Aleuroplatus coronatus* Quaint.; *Kermes* sp. on *Quercus undulata*.
Prospaltella citrella Howard, 1908. Ent. Soc. Amer. Ann. 1: 282. ♀.

diaspidicola Silvestri. Va. Host: *Aspidiotus perniciosus* Comst.
Prospalta diaspidicola Silvestri, 1909. R. Accad. Naz. dei Lincei Atti. 18 (1): 564. ♀.

fasciata Malenotti. La. Host: *Pseudaonidia duplex* (Ckll.).
Prospaltella fasciata Malenotti, 1916. Redia 12: 195. ♀.

fasciativentris Girault. Mich., Ill. Hosts: *Aspidiotus aesculi* (Johns.); *A. forbesi* Johns.; *A. juglans-regiae* Comst.; ?*A. perniciosus* Comst.; ?*Chionaspis furfura* (Fitch).
Prospaltella fasciativentris Girault, 1908. Psyche 15: 117. ♀.

forbesi Dozier. Del. Host: *Aspidiotus forbesi* Johns.
Prospaltella forbesi Dozier, 1928. Ent. Soc. Wash. Proc. 30: 37. ♀.

fuscipennis Girault. Ill., La. Host: *Chrysomphalus obscurus* (Comst.).
Prospaltella fuscipennis Girault, 1908. Psyche 15: 120. ♀.
Biology: Baker, 1933. U. S. Dept. Agr. Cir. 295: 8–9.

murtfeldtae (Howard), emend. D. C., Ill., Mo., Mont. Hosts: *Aspidiotus forbesi* Johns.; *A. uvae* Comst.; *Pseudaulacaspis pentagona* (Targ.).
Prospalta murtfeldtii Howard, 1894. U. S. Dept. Agr. Insect Life 7: 6. ♀.

peltatus (Cockerell). Colo. Host: *Aleyrodes pruinosa euphorbiarum* Ckll.
Mimatomus peltatus Cockerell, 1911. Ent. News 22: 464. ♀.

perniciosi Tower. Ont., N. Y. to Va.; Ind., Ill., Ark., Kans. Hosts: *Aspidiotus perniciosus* Comst.; *Lepidosaphes ulmi* (L.).
Prospaltella perniciosi Tower, 1913. Ent. Soc. Amer. Ann. 6: 125. ♂ ♀.

Biology: Tower, 1914. Jour. Econ. Ent. 7: 422.—Tower, 1914. Ent. Soc. Amer. Ann. 7: 249.—Rice, 1937. Abs. Doctors' Diss. Ohio State Univ. 24: 267–278.—Flanders, 1939. Jour. Econ. Ent. 32: 890.—Flanders, 1944. Science 100: 168.

perspicuipennis Girault. Ill.
Prospaltella perspicuipennis Girault, 1910. N. Y. Ent. Soc. Jour. 18: 234. ♀.

quercicola Howard. Calif. Hosts: *Aleuroplatus coronatus* (Quaint.); *A. gelatinosus* (Ckll.).
Prospaltella quercicola Howard, 1908. Ent. Soc. Amer. Ann. 1: 282. ♀.

Genus ENCARSIA Foerster

Encarsia Foerster, 1878. Naturh. Ver. Rheinlande Verh. 35: 65.
Type: ***Encarsia tricolor*** Foerster. Monob.
Doloresia Mercet, 1912. Madrid Mus. Cien. Nat. Trab. 10: 294.
Type: ***Prospaltella filicornis*** Mercet. Monob.
Revision: Howard, 1907. U. S. Dept. Agr. Bur. Ent. Tech. Bul. 12 (4): 76–79.

angelica Howard. Calif. Hosts: *Aleuroplatus coronatus* (Quaint.); *Aleyrodes* sp. on willow, *A.* sp.
Encarsia angelica Howard, 1895. U. S. Dept. Agr. Div. Ent. Tech. Ser. 1: 30. ♂.

coquilletti Howard. Calif. Host: *Aleyrodes* sp. on *Sonchus*.
Encarsia coquilletti Howard, 1895. U. S. Dept. Agr. Div. Ent. Tech. Ser. 1: 29. ♂ ♀.

formosa Gahan. Canada, N. Y., D. C., Ohio, Mich., Idaho, cosmopolitan. Host: *Trialeurodes vaporariorum* (Westw.).
Encarsia formosa Gahan, 1924. U. S. Natl. Mus. Proc. 65 (4): 14. ♂ ♀.

Biology: Speyer, 1927. Bul. Ent. Res. 17: 301–308.—McLeod, 1938. Sci. Agr. 18: 529–535.—Burnett, 1948. Ecology 29: 181–189.—Burnett, 1949. Ecology 30: 113–133.

luteola Howard. Mass., Conn., D. C. Hosts: *Trialeurodes fernaldi* (Morrill); *T. packardi* (Morrill).
Encarsia luteola Howard, 1895. U. S. Dept. Agr. Div. Ent. Tech. Ser. 1: 29. ♀.
Biology: Morrill and Back, 1912. U. S. Dept. Agr. Bur. Ent. Bul. 102: 8.

meritoria Gahan. Fla. Host: *Trialeurodes floridensis* (Quaint.).
Encarsia meritoria Gahan, 1927. U. S. Natl. Mus. Proc. 71 (4): 19. ♂ ♀.

pergandiella Howard. N. Y., D. C., Mich., Ky., Ill., Calif., Wash. Hosts: *Aleuroplatus coronatus* (Quaint.); *Trialeurodes vaporariorum* (Westw.).
Encarsia pergandiella Howard, 1907. U. S. Dept. Agr. Bur. Ent. Tech. Bul. 12: 78. ♀.
Encarsia versicolor Girault, 1908. Psyche 15: 53. ♂ ♀. N. syn.
Biology: Garman, 1922. Ky. Agr. Expt. Sta. Bul. 241: 92–93.

quaintancei Howard. D. C. Host: *Aleyrodes* on *Polygonum*.
Encarsia quaintancei Howard, 1907. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 12: 79. ♀.

variegata Howard. Fla. Host: *Paraleyrodes perseae* (Quaint.).
Encarsia variegata Howard, 1908. Ent. Soc. Wash. Proc. 10: 64. ♀.
Biology: Morrill and Back, 1912. U. S. Dept. Agr. Bur. Ent. Bul. 102: 8.

Genus ASPIDIOTIPHAGUS Howard

Aspidiotiphagus Howard, 1894. U. S. Dept. Agr. Insect Life 6: 229–230.
Type: ***Coccophagus citrinus*** Craw. Monob.
Prospaltoides Brèthes, 1914. Nunquam Otiosus, Buenos Aires, p. la.
Type: (***Prospaltoides howardi*** Brèthes)=[***Coccophagus***] ***citrinus*** (Craw). Monob.
Revision: Compere, 1936. Calif. Univ., Pubs., Ent. 6: 294–302.

citrinus agilior Berlese. Va.; cosmopolitan. Host: *Unaspis euonymi* (Comst.).
Aspidiotiphagus citrinus var. ***agilior*** Berlese, 1916. Redia 12: 5, 7, 10. ♀.
Taxonomy: Paoli, 1926. Soc. Ent. Ital. Bol. 58: 97–105.

citrinus citrinus (Craw). Widespread in U. S.; cosmopolitan. Hosts: *Aonidiella aurantii* (Mask.); *A. citrina* (Coq.); *Aspidiotus ancylus* (Putn.); *A. britannicus* Newst.; *A. californicus* Col.; *A. destructor* Sign.; *A. hederae* (Vallot); *A. perniciosus* Comst.; *Aulacaspis rosae* (Bouché); *Chrysomphalus aonidum* (L.); *C. dictyospermi* (Morg.); *Coccus hesperidum* L.; *Diaspis bromeliae* (Kern.); *D. echinocacti* (Bouché); *D. visci* (Schrank); *Kuwanaspis hikosani* (Kuw.); *Lepidosaphes beckii* (Newm.); *L. ulmi* (L.); *Melanaspis tenebricosus* (Comst.); *Parlatoria oleae* (Colv.); *P. pergandii* Comst.; *Phenacaspis pinifoliae* (Fitch); *Pinnaspis aspidistrae* (Sign.); *P. strachani* (Cooley); *Pseudaonidia duplex* (Ckll.); *Pseudaulacaspis pentagona* (Targ.).

Coccophagus citrinus Craw, 1891. Calif. State Bd. Hort. Bul. 57: 4.

Biology: Howard, 1895. U. S. Dept. Agr. Div. Ent. Tech. Ser. 1: 7, 31. ♀.—Isaac, 1905. Calif. State Commr. Hort. Bien. Rpt. 1: 95.—Essig, 1931. A Hist. of Ent., pp. 341–342, 386.

Taxonomy: Paoli, 1926. Soc. Ent. Ital. Bol. 58: 97–105.—Dozier, 1926. Puerto Rico Dept. Agr. Jour. 10: 275–276.—De Santis, 1948. La Plata Mus. Rev. Zool. (n. s.) 5: 225–231.

Morphology: Parker and Thompson, 1925. Ent. Soc. Amer. Ann. 18: 387.

lounsburyi (Berlese and Paoli). Fla. Hosts: *Aonidiella aurantii* (Mask.); *Chrysomphalus aonidium* (L.); *C. dictyospermi* (Morg.).

Prospaltella lounsburyi Berlese and Paoli, 1916. Redia 11: 305. ♀.

Biology: Mathis, 1947. Fla. Ent. 29: 33.

Genus ANERISTUS Howard

Aneristus Howard, 1895. Canad. Ent. 27: 351.
Type: ***Aneristus ceroplastae*** Howard. Monob.

Revisions: Dozier, 1932. Puerto Rico Dept. Agr. Jour. 16: 94–102.—Compere, 1936. Calif. Univ., Pubs., Ent. 6: 285–288.—Ghesquière, 1949. Soc. Ent. Belg. Bul. et Ann. 85: 161–167.

The species in this genus are internal parasites of lecaniine Coccidae.

ceroplastae Howard. La., Calif. Hosts: *Coccus hesperidum* L.; *C. pseudomagnoliarum* (Kuw.); *Saissetia hemisphaerica* (Targ.).

Aneristus ceroplastae Howard, 1895. Canad. Ent. 27: 351. ♀.

Coccophagus orientalis Howard, 1896. *In* Howard and Ashmead, U. S. Natl. Mus. Proc. 18: 633. ♀.

Biology: Smith and Compere, 1928. Calif. Univ., Pubs., Ent. 4: 242, 246–247.

Taxonomy: Gahan, 1924. U. S. Natl. Mus. Proc. 65 (4): 13.

youngi Girault. La., Tex. Hosts: *?Ceroplastes* sp. on *Chrysanthemum; Coccus hesperidum* L.; *Saissetia hemisphaerica* (Targ.).

Anenistus (!) ***youngi*** Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V. p. 11. ♀.

Genus COCCOPHAGUS Westwood

Coccophagus Westwood, 1833. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 3: 344.
Type: ***Entedon scutellaris*** Dalman. Desig. by Westwood, 1840.

Paracharitopus Brèthes, 1913. Buenos Aires Mus. Nac. Hist. Nat. An. 24: 105.
Type: ***Paracharitopus lecanii*** Brèthes. Monob.

Onophilus Brèthes, 1918. Soc. Rural Argentina An. 53: 155.
Type: ***Onophilus caridei*** Brèthes. Monob.

Parencarsia Mercet, 1930. Eos 6: 198.
Type: ***Coccophagus krygeri*** Mercet. Monob.

Revisions: Mercet, 1929. Rev. Biol. Forest. y Limnologia (B) 1: 87–91.—Compere, 1931. U. S. Natl. Mus. Proc. 78 (7): 1–132.

albicoxa Howard. Calif. Host: *Physokermes insignicola* (Craw).

Coccophagus albicoxa Howard, 1911. Jour. Econ. Ent. 4: 276. ♀.

capensis Compere. Calif. Hosts: *Saissetia nigra* (Nietn.); *S. oleae* (Bern.).

Coccophagus modestus Amer. Auct., *nec* Silvestri.

Coccophagus modestus var. ***capensis*** Compere, 1931. U. S. Natl. Mus Proc. 78 (7): 83.

Biology: Smith and Compere, 1926. Calif. Univ., Pubs., Ent. 4: 51–61.—Essig, 1931. A Hist. of Ent., pp. 346–386.—Flanders, 1936. Jour. Econ. Ent. 29: 468.—Cendana, 1937. Univ. Calif., Pubs., Ent. 6: 390–396.

cinguliventris Girault. Md., Ill., Wis. Hosts: *Lecanium corni* Bouché; *L. nigrofasciatum* Perg.

Coccophagus cinguliventris Girault, 1909. Psyche 16: 79. ♀.

Taxonomy: Girault, 1916. Ent. Soc. Amer. Ann. 9: 297. ♂.

flavifrons Howard. Fla. Hosts: ?*Lecanium* sp. on *Pinus palustris*; *Toumeyella liriodendri* (Gmel.).

Coccophagus flavifrons Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 25. ♂.

Coccophagus koebelei Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 25. ♂.

fletcheri Howard. Ont., N. Y. Host: *Lecanium fletcheri* Ckll.

Coccophagus fletcheri Howard, 1897. U. S. Dept. Agr. Div. Ent. Bul. 7 (n. s.): 63. ♀.

fraternus Howard. N. Y. to Va.; Mich., Fla., Colo. Hosts: *Lecanium nigrofasciatum* Perg.; *L. persicae* (F.); *Pulvinaria acericola* (W. and R.).

Coccophagus fraternus Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 359. ♀.

Coccophagus fuscipes Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 359. ♂ ♀.

Taxonomy: Howard, 1895. U. S. Dept. Agr. Div. Ent. Tech. Ser. 1: 34.

gossypariae Gahan. N. B., N. Y., Mass. Host: *Gossyparia spuria* (Mod.).

Coccophagus gossypariae Gahan, 1927. U. S. Natl. Mus. Proc. 71 (4): 24. ♀.

Biology: Griswold, 1927. Ent. Soc. Amer. Ann. 20: 553.

gurneyi Compere. Calif. Hosts: *Phenacoccus gossypii* T. and C.; *P. solani* Ferris; *Pseudococcus adonidum* (L.); *P. citri* (Risso); *P. comstocki* (Kuw.); *P. gahani* Green; *P. maritimus* (Ehrh.); *Tetracnemus peregrinus* Comp.

Coccophagus gurneyi Compere, 1929. Calif. Univ., Pubs., Ent. 5: 1. ♂ ♀.

Biology: Compere and Smith, 1932. Hilgardia 6: 585–617.—Cendana, 1937. Calif. Univ., Pubs., Ent. 6: 340–359.—Clancy, 1944. Jour. Econ. Ent. 37: 450.—DeBach, 1949. Ecology 30: 16–24.

immaculatus Howard. N. Y., Pa., D. C., Fla., Ala., Colo., Calif. Hosts: *Aspidiotus perniciosus* Comst.; *Coccus hesperidum* L.; *Eriococcus azaleae* Comst.; *Lecanium* sp. on mulberry; *Pulvinaria bigeloviae* (Ckll.); *Saissetia hemisphaerica* (Targ.); *Toumeyella parvicornis* (Ckll.); *T. turgida* Ckll.

Coccophagus immaculatus Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 358. ♂ ♀.

Biology: Felt, 1916. N. Y. State Mus. Bul. 180: 65.

longifasciatus Howard. Ill. Host: *Lecanium nigrofasciatum* Perg.

?***Aphelinus Inaron*** Walker, 1839. Monog. Chalciditum, v. 1, p. 10. ♂.

Coccophagus longifasciatus Howard, 1907. U. S. Dept. Agr. Bur. Ent. Tech. Bul. 12: 80. ♂ ♀.

Taxonomy: Mercet, 1931. Eos 7: 400.

lycimnia (Walker). Cosmopolitan. Hosts: *Aspidiotus perniciosus* Comst.; *Ceroplastes floridensis* Comst.; *Coccus hesperidum* L.; *C. pseudomagnoliarum* (Kuw.); *Icerya purchasi* Mask.; *Kermes* sp. on ash; *Lecanium corni* Bouché; *L. fletcheri* Ckll.; *L. nigrofasciatum* Perg.; *L. persicae* (F.); *L. pruinosum* Coq.; *L. quercifex* Fitch; *Lepidosaphes beckii* (Newm.); *Parlatoria pergandii* Comst.; *Phenococcus acericola* (King); *Physokermes insignicola* (Craw); *Pseudococcus citri* (Risso); *Pulvinaria acericola* (W. and R.); *P. amygdali* Ckll.;? *P. bigeloviae* Ckll.; *P. vitis* (L.); *P. floccifera* (Westw.); *Saissetia hemisphaerica* (Targ.); *S. nigra* (Nietn.); *S. oleae* (Bern.); *Toumeyella liriodendri* (Gmel.).

Aphelinus Lycimnia Walker, 1839. Monog. Chalciditum, v. 1, p. 11. ♀.

Platygaster Lecanii Fitch, 1859. N. Y. State Agr. Soc. Trans. 18: 805.

Coccophagus lecanii E. A. Smith, 1878. Amer. Nat. 12: 661.

Coccophagus ater Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 359. ♂ ♀.

Coccophagus cognatus Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 359. ♂ ♀.

Coccophagus flavoscutellum Ashmead, 1881. Fla. Agr. 4: 65. ♂ ♀.

Coccophagus vividus Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 24. ♂ ♀.

Coccophagus californicus Howard, 1889. U. S. Dept. Agr. Insect Life, v. 1, p. 269. ♀.

Coccophagus couperi Girault, 1917. Descr. Stellarum Nov., p. 1.

Coccophagus coccidis Girault, 1917. Descr. Stellarum Nov., p. 2. ♀.

Biology: Flanders, 1936. Science 84: 85.—Flanders, 1936. Jour. Econ. Ent. 29: 468.—Flanders, 1936. Ent. Soc. Amer. Ann. 29: 253.—Flanders, 1942. Ecology 23: 120.—Flanders, 1943. Jour. Econ. Ent. 36: 802.

ochraceus Howard. La., Calif. Hosts: *Lecanium corni* Bouché; *Saissetia hemisphaerica* (Targ.); *S. nigra* (Nietn.); *S. oleae* (Bern.).

Coccophagus ochraceus Howard, 1895. U. S. Dept. Agr. Div. Ent. Tech. Ser. 1: 38. ♂ ♀.

Coccophagus bifasciaticorpus Girault, 1916. Soc. Ent. 31: 44. ♂ ♀.

Biology: Cendana, 1937. Calif. Univ., Pubs., Ent. 6: 359–371.—Flanders, 1942. Ecology 23: 120.

perflavus Girault. Que., Wis. Hosts: *Kermes* sp. on ash; *Lecanium corni* Bouché.

Coccophagus perflavus Girault, 1916. Soc. Ent. 31: 43. ♀.

purpureus Ashmead. Fla.

Coccophagus purpureus Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 132. ♀.

rusti Compere. Calif. Host: *Saissetia oleae* (Bern.).

Coccophagus rusti Compere, 1928. *In* Smith and Compere, Calif. Univ., Pubs., Ent. 4: 261–262. ♀.

Biology: Flanders, 1942. Jour. Econ. Ent. 35: 687.

scutatus Howard. Calif. Host: *Kermes nigropunctatus* Ehrh. and Ckll.

Coccophagus scutatus Howard, 1895. U. S. Dept. Agr. Div. Ent. Tech. Ser. 1: 38. ♂ ♀.

scutellaris (Dalman). Calif., cosmopolitan. Hosts: *Coccus hesperidum* L.; *C. pseudomagnoliarum* (Kuw.); *Lecanium corni* Bouché; *Saissetia hemisphaericum* (Targ.); *S. oleae* (Bern.).

Entedon scutellaris Dalman, 1825. Svenska Vetensk. Akad. Handl. 46: 365.

Coccophagus lunulatus [Howard], 1894. U. S. Dept. Agr. Insect Life 6: 232. ♀.

Biology: Smith and Compere, 1928. Calif. Univ., Pubs., Ent. 4: 242, 254–257.—Cendana, 1937. Calif. Univ., Pubs., Ent. 6: 379–390.

timberlakei Compere. Utah. Host: *Pulvinaria bigeloviae* Ckll.

Coccophagus timberlakei Compere, 1931. U. S. Natl. Mus. Proc. 78 (7): 28. ♀.

trifasciatus Compere. Calif. Host: *Saissetia oleae* (Bern.).

Coccophagus trifasciatus Compere, 1925. Calif. Univ., Pubs., Ent. 3: 311. ♂ ♀.

Biology: Cendana, 1937. Calif. Univ., Pubs., Ent. 6: 372–379.—Flanders, 1942. Ecology 23: 120.

Genus TETRACYCLOS Kryger

Tetracyclos Kryger, 1942. Ent. Meddel. 22: 260.
Type: ***Tetracyclos boreios*** Kryger. Monob.

boreios Kryger. Greenland.

Tetracyclos boreios Kryger, 1942. Ent. Meddel. 22: 260. ♀.

Subfamily TETRASTICHINAE

Revision: Kurdjumov, 1913. Rev. Russe d'Ent. 13: 243–256 (transl. by Nowicki, 1927. Eos. 3: 513–617).

Genus CERATONEURA Ashmead

Ceratoneura Ashmead, 1894. *In* Riley and Howard, Linn. Soc. London, Jour. Zool. 25: 178.
Type: ***Ceratoneura petiolata*** Ashmead. Desig. by Ashmead, 1904.

Ceratotetrastichodes Girault, 1917. Speciosissima Genera Nova Eulophidorum, p. 2.
Type: ***Ceratoneura pretiosa*** Gahan. Monob.

pretiosa Gahan. Tex.
Ceratoneura pretiosa Gahan, 1914. U. S. Natl. Mus. Proc. 48: 165. ♂ ♀.
Biology: Gahan, 1941. Ent. Soc. Wash. Proc. 43: 2.

Genus PARASPALANGIA Ashmead

Paraspalangia Ashmead, 1904. Carnegie Mus. Mem. 1: 334.
Type: *Paraspalangia annulipes* Ashmead. Monob.
Stigmatotrastichus Girault, 1916. Ent. Soc. Amer. Ann. 9: 303.
Type: (*Stigmatotrastichus emersoni* Girault)=*Paraspalangia annulipes* Ashmead. Monob.

annulipes Ashmead. Tex.
Paraspalangia annulipes Ashmead, 1904. Carnegie Mus. Mem. 1: 334. ♀.
Stigmatotrastichus emersoni Girault, 1916. Ent. Soc. Amer. Ann. 9: 304. ♀.
Taxonomy: Gahan and Peck, 1946. Wash. Acad. Sci. Jour. 36: 316.

Genus WINNEMANA Crawford

Winnemana Crawford, 1911. U. S. Natl. Mus. Proc. 39: 620.
Type: *Winnemana argei* Crawford. Monob.

argei Crawford. Md. Hosts: Eggs of *Arge pectoralis* (Leach) and *A. salicis* Roh.
Winnemana argei Crawford, 1911. U. S. Natl. Mus. Proc. 39: 620. ♂ ♀.

Genus THRIPOCTENUS Crawford

Thripoctenus Crawford, 1911. Ent. Soc. Wash. Proc. 13: 233.
Type: *Thripoctenus russelli* Crawford. Monob.

americensis Girault. Utah, Alta. Host: ?Thrips in alfalfa.
Thripoctenus americensis Girault, 1917. U. S. Natl. Mus. Proc. 53: 448. ♀.

nubilipennis Williams. Mass. Hosts: *Cryptothrips rectangularis* Hood; *Megalothrips spinosus* Hood.
Thripoctenus nubilipennis Williams, 1916. Psyche 23: 54. ♂ ♀. Biol.

russelli Crawford. Calif. Hosts: *Frankliniella tritici* (Fitch); *Hercothrips fasciatus* (Perg.); ?*Scirtothrips citri* (Moult.); *Taeniothrips simplex* (Mor.); *Thrips tabaci* Lind.
Thripoctenus russelli Crawford, 1911. Ent. Soc. Wash. Proc. 13: 233. ♀.
Biology: Russell, 1912. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 23: 25–52.—Bailey, 1933. Hilgardia 7: 501–502.—Bailey, 1937. Calif. Agr. Expt. Sta. Bul. 609: 26.

Genus THRIPOSOMA Crawford

Thriposoma Crawford, 1913. U. S. Natl. Mus. Proc. 45: 255.
Type: *Thriposoma grafi* Crawford. Monob.

grafi Crawford. Calif.
Thriposoma grafi Crawford, 1913. U. S. Natl. Mus. Proc. 45: 255. ♀.

Genus OMPHALOMOPSIS Girault

Omphalomopsis Girault, 1917. Brooklyn Ent. Soc. Bul. 12: 88.
Type: *Omphalomopsis marilandia* Girault. Monob.

marylandia Girault, emend. Md.
Omphalomopsis marilandia Girault, 1917. Brooklyn Ent. Soc. Bul. 12: 88 ♀.

Genus GALEOPSOMYIA Girault

Galeopsomyia Girault, 1916. Ent. News 27: 348.
Type: *Euderus columbianus* Ashmead. Monob.

columbiana (Ashmead). N. J., Md., D. C., Fla., Tex. Host: *Asphondylia globulus* O. S.
Euderus columbiana Ashmead, 1888. Canad. Ent. 20: 104. ♀.
Taxonomy: Girault, 1912. Canad. Ent. 44: 50–52.

nigrocyanea (Ashmead), n. comb. Fla., La. Host: Gall of *Belonocnema treatae* Mayr.
Gyrolasia nigrocyaneus Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 134. ♀.

Genus PARAGALEOPSOMYIA Girault

Paragaleopsomyia Girault, 1917. Speciosissima Genera Nova Eulophidorum, p. 1.
Type: ***Paragaleopsomyia eja*** Girault. Monob.

eja Girault. Kans.
Paragaleopsomyia eja Girault, 1917. Speciosissima Genera Nova Eulophidorum, p. 1. ♀.

gallicola Gahan. Ariz. Host: Itonidid gall on *Pluchea borealis*.
Paragaleopsomyia gallicola Gahan, 1919. Ent. Soc. Amer. Ann. 12: 167. ♂ ♀.

Genus PROTHMYUS Girault

Prothymus Girault, 1917. New Chalcid Flies, p. 1.
Type: ***Prothymus novus*** Girault. Monob.

novus Girault. Fla.
Prothymus novus Girault, 1917. New Chalcid Flies, p. 1.

Genus GALEOPSOMOPSIS Girault

Galeopsomopsis Girault, 1917. Speciosissima Genera Nova Eulophidorum, p. 1.
Type: ***Galeopsomopsis multisulcata*** Girault. Orig. desig.

squamosa Girault. Calif.
Galeopsomopsis squamosus Girault, 1917. New Chalcid Flies, p. 3.

transcarinata Gahan. Ariz. Host: *Asphondylia websteri* Felt.
Galeopsomopsis transcarinatus Gahan, 1919. Ent. Soc. Amer. Ann. 12: 168. ♂ ♀.

Genus THYMISCUS Ghesquière

Thymus Girault, 1916. Canad. Ent. 48: 113. Preocc. by *Timus*.
Type: ***Encyrtus albocinctus*** Ashmead. Monob.
Thymiscus Ghesquière, 1946. Rev. Zool. Bot. Africaines 34: 371. N. name.

albocinctus (Ashmead). Fla. Host: Gall of *Cynips* sp. on *Quercus nigra*.
Eupelmus (!) ***albocinctus*** Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. XVI. ♀.

Genus TETRASTICHUS Walker

Tetrastichus Walker, 1842. Ann. Mag. Nat. Hist. 10: 116.
Type: ***Cirrospilus lycidas*** Walker. Present desig.
Trichoceras Ratzeburg, 1844. Ichn. d. Forstins., v. 1, table opposite p. 40, p. 171.
Type: ***Trichoceras erythrophthalmus*** Ratzeburg. Monob.
Geniocerus Ratzeburg, 1848. Ichn. d. Forstins., v. 2, p. 175. N. name.
Baryscapus Foerster, 1856. Hym. Stud., v. 2, p. 84 (no species).
Type: ***Baryscapus centricolae*** Ashmead. Included by Ashmead, 1887.
Oomyzus Rondani, 1870. Comizio Agr. Parma Bol. 3: 141.
Type: ***Oomyzus gallerucae*** Rondani. Monob.
Tetrastichodes Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 203.
Type: (***Tetrastichus floridanus*** Ashmead)=[***Entedon***] ***hagenowii*** (Ratzeburg). Monob.
Neotetrastichus Perkins, 1912. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 10: 14.
Type: ***Neotetrastichus mimus*** Perkins. Monob.
Epitetrastichus Girault, 1913. Queensland Mus. Mem. 2: 205 (footnote), 229.
Type: ***Epitetrastichus speciosissimus*** Girault. Orig. desig.
Neomphaloidella Girault, 1913. Roy. Soc. So. Australia Trans. 37: 69.
Type: ***Neomphaloidella fasciativentris*** Girault. Monob.

Epomphaloides Girault, 1913. Arch. f. Naturgesch. 79A (6): 49.
Type: ***Epomphaloides flavus*** Girault. Monob.
Neotetrastichodes Girault, 1913. Queensland Mus. Mem. 2: 228.
Type: ***Neotetrastichodes flavus*** Girault. Orig. desig.
Aprostoceroloides Girault, 1913. Queensland Mus. Mem. 2: 243.
Type: ***Aprostoceroloides speciosus*** Girault. Orig. desig.
Blattotetrastichus Girault, 1917. Ent. News 28: 257.
Type: ***Entedon hagenowii*** Ratzeburg. Monob.
Revision: Burks, 1943. U. S. Natl. Mus. Proc. 93: 505–608.

acutus Ashmead. Fla.
Tetrastichus acutus Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 134. ♂.

aeneoviridis (Girault). Ill. Hosts: ?*Malacosoma americanum* (F.); Syrphid puparia.
Trichaporus aeneoviridis Girault, 1912. Canad. Ent. 44: 52, 76. ♂ ♀.

agrili Crawford. N. Y. Host: *Agrilus sinuatus* (Oliv.).
Tetrastichus agrili Crawford, 1914. Insecutor Inscitiae Menstruus 2: 181. ♀.

ainsliei Gahan. N. Y., Conn., Md., Va., Ill., Iowa, Kans., S. Dak., N. Dak. Hosts: *Mordellistena pustulata* (Melsh.); *Cylindrocopturus adspersus* (Lec.); *Phytophaga destructor* (Say).
Tetrastichus ainsliei Gahan, 1917. U. S. Natl. Mus. Proc. 53: 214. ♂ ♀.
Neomphaloidella mediogutta Girault, 1917. Ent. News 28: 255. ♀.

alaskensis Ashmead. Alaska.
Tetrastichus alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 146. ♂.

anthophilus Burks. Ill. Host: *Rhopalomyia anthophila* O. S.
Tetrastichus anthophilus Burks, 1947. Ent. News 58: 85. ♂ ♀.

anthracinus Ashmead. Alaska. Host: ?*Agrilus angelicus* Horn.
Tetrastichus anthracinus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 146. ♀.

argyrus Burks. Va., S. C., Ga., Iowa. Host: Itonidid in leaf gall of *Solidago leavenworthii*.
Tetrastichus argyrus Burks, 1943. U. S. Natl. Mus. Proc. 93: 558. ♂ ♀.

asparagi Crawford. Man., Ont., Que., N. B., N. Y., Mass., R. I., Conn., Md., Ill., Ky., Va., W. Va., Ariz. Host: *Criocerus asparagi* (L.).
Tetrastichus asparagi Crawford, 1909. Ent. Soc. Wash. Proc. 11: 150.
Biology: Russell and Johnston, 1912. Jour. Econ. Ent. 5: 429.—Johnston, 1915. Jour. Agr. Res. 4: 303.

baldufi Burks. Ill. Host: Gall of *Neuroterus verrucarum* O. S.
Tetrastichus baldufi Burks, 1943. U. S. Natl. Mus. Proc. 93: 540. ♂ ♀.

banksii Howard. N. J., D. C., Fla. Host: Egg sacs of argiopid spiders.
Tetrastichus banksii Howard, 1892. Ent. Soc. Wash. Proc. 2: 299. ♀.

blastophagi (Ashmead). D. C., Fla. Host: Gall of *Callirhytis blastophaga* (Ashm.).
Hyperteles blastophagi Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 202. ♂ ♀.

brevistigma Gahan. New England, D. C., Ohio, Ind., Ky., Calif., Oreg., Wash. Host: *Galerucella xanthomelaena* (Schrank).
Tetrastichus brevistigma Gahan, 1936. Ent. Soc. Wash. Proc. 38: 76. ♂ ♀.

Biology: Berry, 1938. U. S. Dept. Agr. Cir. 485: 1–11.

bruchivorus Gahan. N. C. Host: *Bruchus brachialis* Fahr.
Tetrastichus bruchivorus Gahan, 1942. Ent. Soc. Wash. Proc. 44: 8. ♂ ♀.

bruchophagi Gahan. Generally distributed in North America. Hosts: *Bathyplectes curculionis* (Thoms.); *Bruchophagus gibbus* (Boh.).
Tetrastichus brucophagi Gahan, 1913. U. S. Natl. Mus. Proc. 46: 439. ♂ ♀.
Tetrastichus bruchophagi Girault, 1916. U. S. Natl. Mus. Proc. 51: 128, 1932. Emend.
Biology: Urbahns, 1917. Jour. Agr. Res. 8: 277–282.—Urbahns, 1920. U. S. Dept. Agr. Bul. 812: 17.

carinatus Forbes. Ont. to N. C., Kans., Minn.; Oreg., Wash. Hosts: ?*Dasyneura leguminicola* (Lint.); *Phytophaga destructor* (Say); *Platygaster herricki* Pack.; *P. vernalis* (Myers); *P. zosine* Wlkr.

Tetrastichus carinatus Forbes, 1885. Ill. State Dept. Agr. Trans. 22: App. p. 48. ♀.
Biology: Hill, Pinckney, and Udine, 1939. U. S. Dept. Agr. Tech. Bul. 689: 4–7, 10–15.
Taxonomy: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 138–142, 144.—Hill and Pinckney, 1940. U. S. Dept. Agr. Tech. Bul. 715: 10–13.

carpatus Burks. N. H., Mass., Md., Ohio, Mo., Calif. Hosts: *Tineola bisselliella* (Hum.); *Tinea fuscipunctella* Haw.; *T. pellionella* (L.); *Apanteles carpatus* (Say).
Tetrastichus carpatus Burks, 1943. U. S. Natl. Mus. Proc. 93: 566. ♂ ♀.

cassidis Burks. La. Hosts: *Deloyala guttata* (Oliv.); *Metriona bicolor* (F.).
Tetrastichus cassidis Burks, 1943. U. S. Natl. Mus. Proc. 93: 555. ♂ ♀.

centricolae (Ashmead). N. C. Host: Gall of *Atrusca centricola* (O. S.).
Baryscapus centricolae Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 202. ♀.

chlamytis Ashmead. Maine, N. J., Md., D. C., Va., Ill., Miss., Minn. Hosts: *Chlamisus gibbosa* (F.); *C.* spp.; *Exema dispar* Lacord.
Tetrastichus chlamytis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 234. ♂ ♀.

chrysopae (Crawford). Md. to Fla., Ohio, Tenn., Tex.; Ill.; Calif. Hosts: *Chrysopa californica* Coq.; *C. oculata* Say; *C. plorabunda* Fitch; *C. rufilabris* Burm.
Geniocerus chrysopae Crawford, 1915. U. S. Natl. Mus. Proc. 48: 584. ♀.
Aprostoceroloides annapolis Girault, 1917. Chalcidoidea Nova Marilandensis, II, p. 2. ♀.
Biology: Clancy, 1946. Calif. Univ., Pubs., Ent. 7: 448–454. ♀.

coerulescens Ashmead. N. B. to Ga., Tex. and Kans.; Colo., Calif., Nev. Hosts: *Malacomyza westwoodi* Fitch; *Chalcodermus collaris* Horn; *Fascista cercerisella* (Chamb.); ?*Recurvaria thujaella* Kearf.; ?*Argyresthia thuiella* (Pack.); *Coleophora malivorella* Riley; *Callisto geminatella* (Pack.); *Amphibolips cinerea* (Ashm.); *Apanteles congregatus* (Say); *Bracon gelechiae* Ashm.; *B. hebetor* Say; ?*Microgaster* sp.; *Catolaccus aeneoviridis* Gir.; *Dibrachys cavus* (Wlkr.); *Meraporus* sp.; *Pteromalus* sp.
Tetrastichus coerulescens Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 130. ♂ ♀.
Tetrastichus doteni Crawford, 1911. Ent. Soc. Wash. Proc. 13: 234. ♂ ♀.

compsivorus Crawford. Miss., Tex., Okla. Host: *Compsus auricephalus* (Say).
Tetrastichus compsivorus Crawford, 1915 (1914). Insecutor Inscitiae Menstruus 2: 180. ♂ ♀.

cormus Burks. Ill. Hosts: Gall of *Aulacidea podagrae* (Bass.); ?gall of *Hemadas nubilipennis* (Ashm.).
Tetrastichus cormus Burks, 1943. U. S. Natl. Mus. Proc. 93: 579. ♂ ♀.

diarthronomyiae Gahan. Md. Host: *Diarthronomyia hypogaea* (Loew).
Tetrastichus diarthronomyiae Gahan, 1923. Ent. Soc. Wash. Proc. 25: 65. ♀.
Biology: Hamilton, 1924. Md. Agr. Expt. Sta. Bul. 269: 32.

dolosus Gahan. La., Tex., Kans. Hosts: *Ancylis comptana* (Froehl.); *Fascista cercerisella* (Chamb.); *Euplectrus comstockii* How.; *E. plathypenae* How.
Tetrastichus dolosus Gahan, 1917. U. S. Natl. Mus. Proc. 53: 215. ♂ ♀.

dyrus Burks. Mont. Hosts: *Trioza* nymphs on *Angelica lyalli*, on *Salix*, and on *Thalictrum occidentale*.
Tetrastichus dyrus Burks, 1943. U. S. Natl. Mus. Proc. 93: 541. ♂ ♀.

epidius Walker. Fla.
Tetrastichus Epidius Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 28. ♀.

euplectri Gahan. La., Tex. Hosts: *Meteorus* sp.; *Euplectrus plathypenae* How.
Tetrastichus euplectri Gahan, 1914. U. S. Natl. Mus. Proc. 48: 167. ♂ ♀.

faustus Burks. Mont. Host: *Rhagoletis fausta* (O. S.).
Tetrastichus faustus Burks, 1943. U. S. Natl. Mus. Proc. 93: 582. ♀.

flavipes Ashmead. Fla. Host: Gall of *Disholcaspis virens* (Ashm.).
Tetrastichus flavipes Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 135.

flavopictus (Ashmead). Fla.
Ceranisus flavopictus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 202. ♂ ♀.

flora (Girault). Md., D. C., Fla., Tenn. Host: *Monarthropalpus buxi* (Laboulb.).
Aprostocetus flora Girault, 1917. New Chalcid Flies, p. 3.
Epitetrastichus tricolor Girault, 1917. Descr. Stellarum Nov., p. 9. ♀.

floridae (Girault), emend., n. comb. Fla.
Neomphaloidella florida Girault, 1917. New Chalcid Flies, p. 4. ♂ ♀.

fumipennis (Girault). Md., D. C., Va., Ind., Ill., Iowa. Hosts: ?*Gnorimoschema gallaesolidaginis* (Riley); gall of *Asteromyia carbonifera* (Felt).
Neomphaloidella fumipennis Girault, 1917. Chalcidoidea Nova Marilandensis [I], p. 2. ♀.

gala Walker. Fla.
Tetrastichus Gala Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 28. ♀.

gelastus Burks. Fla. Host: *Trioza* on Chinese elm.
Tetrastichus gelastus Burks, 1943. U. S. Natl. Mus. Proc. 93: 539. ♀.

gerstaeckeriae Gahan. Tex. Hosts: *Gerstaeckeria nobilis* Lec.; *G. porosa* Lec.
Tetrastichus gerstaeckeriae Gahan, 1936. U. S. Natl. Mus. Proc. 83: 485. ♂ ♀.

gibboni (Girault). Ariz. Host: *Languria mozardi* Latr.
Ootetrastichus gibboni Girault, 1917. Brooklyn Ent. Soc. Bul. 12: 86. ♀.

gigas Burks. Calif., Oreg., Wash. Host: Gall of *Andricus californicus* Ashm.
Tetrastichus gigas Burks, 1943. U. S. Natl. Mus. Proc. 93: 560. ♂ ♀.

granulatus Walker. Ont.
Tetrastichus granulatus Walker, 1844. Ann. Mag. Nat. Hist. (1) 14: 17. ♀.

hagenowii (Ratzeburg). Fla., La. Hosts: *Blatta orientalis* L.; *Blattella germanica* (L.); *Periplaneta americana* (L.); *P. australasiae* (F.); *Evania appendigaster* (L.).
Entedon Hagenowii Ratzeburg, 1852. Ichn. d. Forstins., v. 3, p. 211.
Tetrastichus floridanus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 203. ♂ ♀.
Taxonomy: Gahan, 1914. U. S. Natl. Mus. Proc. 48: 168.

hesperius Burks. Ill. Host: Gall of *Diplolepis ignota* (O. S.).
Tetrastichus hesperius Burks, 1947. Ent. News 58: 88. ♂ ♀.

hibus Burks. Calif. Host: Cup-gall on *Artemisia ludoviciana*.
Tetrastichus hibus Burks, 1943. U. S. Natl. Mus. Proc. 93: 582. ♂ ♀.

hillmeadia (Girault). Md.
Ootetrastichus hillmeadia Girault, 1917. Chalcidoidea Nova Marilandensis III, p. 2. ♀.

holbeini Girault. W. Va., Mo., Calif. Hosts: *Chrysobothris femorata* (Oliv.); *C. mali* Horn.
Tetrastichus holbeini Girault, 1917. New Chalcid Flies, p. 2. ♀.

hunteri Crawford. Conn., Miss., La., Tex. Host: *Anthonomus grandis* Boh.
Tetrastichus hunteri Crawford, 1909. Ent. Soc. Wash. Proc. 11: 150. ♀.
Biology: Pierce, Cushman, and Hood, 1912. U. S. Dept. Agr. Bur. Ent. Bul. 100: 1, 52, 56–63.

ichthyrus Burks. Tex. Hosts: ?Gall of *Neuroterus rileyi* Ashm.; probably *Xanthoteras emoryi* (Ashm.).
Tetrastichus ichthyus Burks, 1943. U. S. Natl. Mus. Proc. 93: 528. ♂ ♀.

impexus Girault. Va. Host: Gall of *Disholcaspis quercus-globulus* (Fitch).
Tetrastichus impexus Girault, 1917. New Chalcid Flies, p. 2.

johnsoni Ashmead. Ill. Host: Nest of *Phanagenia bombycina* (Cress.).
Tetrastichus johnsoni Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 233. ♀.

juniperi (Crawford). N. Y., Va., Oreg. Host: Juniper berries, probably with itonidid larvae or *Anthonomus juniperinus* Sanb.
Geniocerus juniperi Crawford, 1915. U. S. Natl. Mus. Proc. 48: 585. ♀.
Biology: Marcovitch, 1915. Ent. Soc. Amer. Ann. 8: 169. ♂ ♀.

lasius Burks. Ohio. Hosts: *Asteromyia argrostis* O. S.; *Lasioptera muhlenbergiae* Mart.

Tetrastichoides lasiopterae Ashmead, 1894. Cincinnati Soc. Nat. Hist. Jour. 17: 54. ♂ ♀. Preocc.

Tetrastichus lasius Burks, 1943. U. S. Natl. Mus. Proc. 93: 596. ♂ ♀. N. name.

lissus Burks. Ariz. Host: In pods of *Astragalus mollissimus.*

Tetrastichus lissus Burks, 1943. U. S. Natl. Mus. Proc. 93: 527. ♀.

longicorpus (Girault). N. Mex. Host: *Rhyacionia frustrana bushnelli* (Busck).

Neotetrastichodes longicorpus Girault, 1916. U. S. Natl. Mus. Proc. 51: 129. ♀.

malacosomae Girault. Que., N. Y., Mass., Conn., Del., Pa., Nebr., N. Mex., Idaho, Calif., Oreg. Hosts: *Malacosoma americanum* (F.); *M. disstria* Hbn., *M. fragile* Stretch.

Tetrastichus malacosomae Girault, 1917 (1916). Insecutor Inscitiae Menstruus 4: 110. ♂ ♀.

malophilus Burks. Ohio. Host: *Rhynchaenus pallicornis* (Say).

Tetrastichus malophilus Burks, 1943. U. S. Natl. Mus. Proc. 93: 585. ♀.

marcovitchi (Crawford). N. Y. Hosts: ?*Tetrastichus juniperi* (Cwfd.); ?phytophagous *Eurytoma* sp. in berries of *Juniperus virginiana.*

Geniocerus marcovitchi Crawford, 1915. U. S. Natl. Mus. Proc. 48: 586. ♂ ♀.

Biology: Marcovitch, 1915. Ent. Soc. Amer. Ann. 8: 170.

marylandensis (Girault). Mass., Md., D. C., Va., Miss., Mo., Ill. Hosts: ?*Aphis maidis* Fitch; ?*Rhyacionia frustrana* (Comst.); ?*Exoteleia pinifoliella* (Chamb.), ?Itonidid.

Epitetrastichus marylandensis Girault, 1916. Ent. Soc. Amer. Ann. 9: 295. ♀.

Epitetrastichus cuneiformis Girault, 1917. Descr. Stellarum Nov., p. 18. ♀

melanis Burks. Ont., Mass., Wash. Host: *Coccinella quinquenotata* Kirby.

Tetrastichus melanis Burks, 1943. U. S. Natl. Mus. Proc. 93: 529. ♂ ♀.

microrhopalae Ashmead. Man., N. J., D. C., Va. Hosts: *Cicindela limbalis* var. *awemeana* Casey; *Microrhopala xerene* Newm.

Tetrastichus microrhopalae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 234. ♂ ♀.

minutus (Howard). Conn., D. C., Va., Fla., Kans., N. Mex., Ariz., Utah, Calif. Hosts: *Aphis gossypii* Glov.; *A. pomi* Deg.; *Lecanium corni* Bouché; *L. nigrofasciatum* Perg.; *L. persicae* (F.); *Phenacoccus acericola* King; *P. helianthi* (Ckll.); *Physokermes insignicola* (Craw); *Pseudococcus juniperi* Ehrh.; *Pulvinaria bigeloviae* Ckll.; *Saissetia oleae* (Bern.); ?*Cycloneda sanguinea* (L.); *C. sanguinea immaculata* (F.); *Coccophagus albicoxa* How.; *C. lycimnia* (Wlkr.); *Anagyrus yuccae* (Coq.) *Aphycus lounsburyi* How.; *A. physokermis* Timb.; *Blastothrix longipennis* How.; ?*Chalcaspis phenacocci* (Ashm.); *Chrysoplatycerus ferrisi* Timb.; *C. splendens* How.; *Clausenia purpurea* Ishii; ? *Homalotylus terminalis* (Say); *Microterys mazzinini* Gir.; *Pseudleptomastix squammulata* Gir.; *Zarhopalus corvinus* (Gir.); *Pachyneuron californicum* Gir.

Astichus minutus Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 369. ♂.

Tetrastichus lecanii Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. XIX. ♂.

Tetrastichus blepyri Ashmead, 1902. Canad. Ent. 34: 302. ♀.

Tetrastichus (Tetrastichodes) detrimentosus Gahan, 1913. U. S. Natl. Mus. Proc. 46: 439. ♂ ♀.

Biology: Timberlake, 1924. Calif. Univ., Pubs., Ent. 3: 248–251.—Clausen, 1924. Calif. Univ., Pubs., Ent. 3: 257–266, 286–287.—Smith and Compere, 1928. Calif. Univ., Pubs., Ent. 4: 242, 306–308.

Taxonomy: Gahan, 1924. U. S. Natl. Mus. Proc. 65 (4): 19.

modestus Howard. N. J. to Va. and Ohio; Iowa, Calif. Hosts: *Apanteles atalantae* (Pack.); *A. edwardsii* Riley; *Microgaster congregatiformis* Vier.

Tetrastichus modestus Howard, 1889. *In* Scudder, Butterflies of Eastern U. S. and Canada, pp. 1872, 1894. ♂ ♀.

Epitetrastichus mundicornis Girault, 1917. Chalcidoidea Nova Marilandensis III, p. 1. ♀.

nebraskensis (Girault) Nebr.
Neomphaloidella nebraskensis Girault, 1916. Canad. Ent. 48: 103. ♀.

neuroteri (Ashmead). N. Y., D. C., Va., Fla., Mo., Ill. Hosts: *Neuroterus rileyi* Ashm.; gall of *N. saltarius* Weld.
Hyperteles neuroteri Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 203. ♂ ♀.

oecanthivorus compar Gahan. Pa., S. C., Tex. This may be identical with *T. oecanthivorus oecanthivorus* Gahan, 1932, n. name for *T. dispar* Silvestri, preocc., occurring in Italy. Host: *Oecanthus nigricornis quadripunctatus* Beut.
Tetrastichus oecanthivorus var. ***compar*** Gahan, 1932. Ent. Soc. Amer. Ann. 25: 743. ♂ ♀.

oklahomae (Girault), emend. Okla., Utah. Host: ? *Harmolita* sp. in grass stem.
Neomphaloidella oklahoma Girault, 1917. Descr. Stellarum Nov., p. 9, ♂ ♀.

oncideridis Gahan. W. Va. Host: *Oncideres cingulatus* (Say).
Tetrastichus oncideridis Gahan, 1932. Ent. Soc. Amer. Ann. 25: 745. ♂ ♀.

ovipransus Crosby and Leonard. Va. Host: *Blepharida rhois* (Forst.).
Tetrastichus ovipransus Crosby and Leonard, 1917. Ent. News 28: 368. ♀.

pandora Burks. Oreg. Host: *Coloradia pandora* Blake.
Tetrastichus pandora Burks, 1943. U. S. Natl. Mus. Proc. 93: 530. ♂ ♀.

paracholus Burks. Va. Host: *Gnorimoschema gallaesolidaginis* (Riley).
Tetrastichus paracholus Burks, 1943. U. S. Natl. Mus. Proc. 93: 551. ♂ ♀.

pattersonae Fullaway. Fla., Utah. Calif. Hosts: *Antron echinus* (Ashm.); *Callirhytis pomiformis* Ashm.; ?*Disholcaspis chrysolepidis* (Beut.).
Tetrastichus pattersonae Fullaway, 1912. N. Y. Ent. Soc. Jour. 20: 280. ♀.

phegus Burks. Ill., Tex., Calif. Hosts: *Disholcaspis cinerosa* (Bass.); gall of *D. mamma* (Walsh); gall of *Heteroecus pacificus* Ashm.
Tetrastichus phegus Burks, 1943. U. S. Natl. Mus. Proc. 93: 559. ♂ ♀.

polynemae Ashmead. N. Y., Del., Ill. Hosts: Egg of *Lestep* sp.; *Polynema needhami* (Ashm.).
Tetrastichus p lynemae Ashmead, 1900. Ent. News 11: 616. ♀.
Ootetrastichus mymaridis Girault, 1916. U. S. Natl. Mus. Proc. 51: 130. ♀.

productus Riley. P. E. I., N. J., Ohio, Mo., Kans. Hosts: ?*Phytophaga destructor* (Say); gall on *Salix*.
Tetrastichus productus Riley, 1885. U. S. Natl. Mus. Proc. 8: 419. ♂ ♀.
Taxonomy: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 143-144, ♂ ♀.

pulchriventris (Girault). Md., La.
Neomphaloidella pulchriventris Girault, 1916. Canad. Ent. 48: 101. ♀.

punctatifacies Girault. Australia; ?Conn.
Tetrastichus punctatifacies Girault, 1926. Insecutor Inscitiae Menstruus 14: 142.

Taxonomy: Britton, 1938. Conn. State Geol. and Nat. Hist. Survey Bul. 60: 144.

punctatifrons (Girault). Ariz. Host: ?*Paraleucoptera albella* (Chamb.).
Epitetrastichus punctatifrons Girault, 1916. U. S. Natl. Mus. Proc. 51:128. ♀.

racemariae Ashmead. Ont., Conn., N. J., W. Va., Ill., Fla., Kans., Minn., Calif. Hosts: ?*Eurytoma californica* Ashm.; galls of: *Amphibolips cinerea* Ashm.; *A. prunus* Cress.; *A. racemaria* Ashm.; *Andricus flocci* (O. S.); *A. lasius* (Ashm.); *Callirhytis pomiformis* (Ashm.); *Disholcaspis mamma* (Walsh); ? *Neuroterus noxiosus* (Bass.); *N. quercus-batatus* (Fitch).
Tetrastichus racemariae Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 134. ♂ ♀.
Tetrastichus californicus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 203. ♀.
Hyperteles flocci Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 203. ♂ ♀.

rapo (Walker). N. Y., D. C., N. C., cosmopolitan. Host: *Apanteles glomeratus* (L.).
Cirrospilus Rapo Walker, 1839. Ann. Mag. Nat. Hist. (1) 3: 415. ♂ ♀.
Biology: Masi, 1908. Lab. Zool. Gen. e Agr. Portici Bol. 3: 133.

repulsus Girault. Iowa.
Tetrastichus repulsus Girault, 1917. New Chalcid Flies, pp. 2, 4.

rosae Ashmead. N. J., D. C., Va., Fla., Mich., Colo., Idaho, B. C. Hosts: *Diplolepis ignota* (O. S.); *D. ostensackeni* (Beut.).
Tetrastrichus rosae Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 134. ♀ (♂ misdet.).

rugglesi Rohwer. N. Y., Conn., W. Va., Minn. Hosts: *Agrilus arcuatus* (Say); *A. champlaini* Frost; *A. viridis* var. *fagi* (Ratz.).
Tetrastichus rugglesi Rohwer, 1919. Canad. Ent. 51: 160. ♀.

saundersii (Packard). Ont., Conn., N. J. Hosts: *Strymon* sp., presumably *edwardsii* (Saund.); *S. falacer* (Godt.).
Eulophus Saundersii Packard, 1881. Boston Soc. Nat. Hist. Proc. 21: 34. ♂.

scolyti Ashmead. N. J., W. Va. Host: *Scolytus rugulosus* (Ratz.).
Tetrastichus scolyti Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 343. ♀.

scriptus Burks. N. J. Host: ?*Euplectrus* sp.
Tetrastichus scriptus Burks, 1943. U. S. Natl. Mus. Proc. 93: 550. ♀.

semiauraticeps (Girault). Maine, Colo., Ariz. Hosts: Needle gall on *Pinus ponderosa*; bud gall on *Pinus scopulorum*.
Epitetrastichus semiauraticeps Girault, 1916. U. S. Natl. Mus. Proc. 51: 127. ♀.

semideae (Packard). N. H., Conn. Host: *Oeneis melissa* (Say).
Eulophus semideae Packard, 1874. *In* Hitchcock and Huntington, Geol. of N. H., pt. 1, p. 347. ♂ ♀.

semilongifasciatus (Girault). Md., D. C.
Neomphaloidella semilongifasciata Girault, 1916. Soc. Ent. 31: 35. ♀.

silvaticus Gahan. N. B., Vt., Conn., Minn. Host: *Malacosoma disstria* Hbn.
Tetrastichus silvaticus Gahan, 1937. Ent. Soc. Wash. Proc. 39: 266. ♂ ♀.
Biology: Hodson, 1939. Ent. Soc. Amer. Ann. 32: 131–136.

sobrius Gahan. Conn., Ariz., Calif. Hosts: ?*Asphondylia bea* Felt; *A. websteri* Felt.
Tetrastichus sobrius Gahan, 1919. Ent. Soc. Amer. Ann. 12: 166. ♂ ♀.

solidaginis Burks. Utah. Host: Gall of *Eurosta solidaginis* (Fitch).
Tetrastichus solidaginis Burks, 1943. U. S. Natl. Mus. Proc. 93: 534. ♂ ♀.

spilopteris Burks. N. Mex., Calif., Oreg. Hosts in galls of: *Andricus kingi* Bass.; *Dryocosmus bicornis* (McC. and E.); *Neuroterus saltatorius* (Edw.).
Tetrastichus spilopteris Burks, 1943. U. S. Natl. Mus. Proc. 93: 564. ♂ ♀.

stanfordiensis Fullaway. Calif. Host: Pimply gall on *Quercus douglasii*, possibly *Antron douglasii* (Ashm.).
Tetrastichus stanfordiensis Fullaway, 1912. N. Y. Ent. Soc. Jour. 20: 281. ♀.

strobilus Burks. Oreg. Host: Lepidopteron in cone of *Pseudotsuga taxifolia*, probably *Barbara colfaxiana* Kearf.
Tetrastichus strobilus Burks, 1943. U. S. Natl. Mus. Proc. 93: 570. ♂ ♀.

tesserus Burks. Va., Mich., Ill., Iowa. Host: *Asteromyia* gall on goldenrod.
Tetrastichus tesserus Burks, 1943. U. S. Natl. Mus. Proc. 93: 552. ♂ ♀.

thanasimi Ashmead. Pa., W. Va., Mich., Mont., Calif. Hosts: *Chilocorus stigma* (Say); *Cymatodera* sp.; *Thanasimus dubius* (F.); *T. trifasciatus* (Say); *T.* larva in sumach.
Tetrastichus thanasimi Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 343. ♀.

theclae (Packard). New England, N. J. Host: *Strymon falacer* (Godt.).
Eulophus theclae Packard, 1881. Boston Soc. Nat. Hist. Proc. 21: 34. ♂.

thripophonus Waterston. Fla. Host: *Liothrips laureli* (Mason).
Tetrastichus thripophonus Waterston, 1923. Bul. Ent. Res. 13: 453. ♀.
Biology: Mason, 1922. Ent. News 33: 199.

tibialis (Ashmead). N. Y., Mass., Del., W. Va., Ont. Hosts: *Apanteles* sp. on *Apatela americana* (Harr.); *Olesicampe* sp.; *Homalotylus* sp.
Tetrastichodes tibialis Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 344. ♀.
Biology: Dimmock, 1898. Ent. Soc. Wash. Proc. 4: 150.

triozae Burks. Kans., Colo., N. Mex., Ariz., Calif., Idaho, Mont., Wash. Hosts: ?*Calophya nigripennis* Riley; *Paratrioza cockerelli* (Sulc).
Tetrastichus triozae Burks, 1943. U. S. Natl. Mus. Proc. 93: 542. ♂ ♀.

trisulcatus Provancher. N. B. to Va., west to Ill. and Ont. Hosts: *Arge pectoralis* (Leach); ?*Neodiprion* sp.
Tetrastichus trisulcatus Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 211. ♂ ♀.
Hyperteles hylotomae Ashmead, 1888. Canad. Ent. 20: 105. ♀. N. syn.

turionum (Hartig). N. Y., Conn., Mass., N. J. Host: *Rhyacionia buoliana* (Schiff.).
Eulophus turionum Hartig, 1838. Jahresber. über die Fortsch. der Fortw. u. Forstl. Naturk. 1: 268. ♂ ♀.
Biology: Dowden, 1934. Ent. Soc. Amer. Ann. 27: 600.—Bergold and Ripper, 1937. Ztschr. f. Parasitenk. 9: 399, 414–415.

ulysses (Girault). Md.
Aprostocetus ulysses Girault, 1916. Brooklyn Ent. Soc. Bul. 11: 112. ♀.

varicornis (Girault). Md.
Epitetrastichus varicornis Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 4. ♀.

venustus Gahan. Ind., Iowa, Ariz., Calif. Hosts: ?*Asphondylia websteri* Felt; ?*Bruchophagus gibbus* (Boh.).
?Cynips brevicornis Panzer, 1804. Syst. Nomencl., p. 134.
Tetrastichus venustus Gahan, 1914. U. S. Natl. Mus. Proc. 48: 168. ♀.
Biology: Urbans, 1920. U. S. Dept. Agr. Bul. 812: 18.

verrucarii Balduf. N. Y., D. C., Va., Ill., Calif. Hosts in galls of: *Neuroterus floccosus* (Bass.); *N. niger* Gill.; *N. varians* Kinsey; *N. verrucarum* O. S.
Tetrastichus verrucarii Balduf, 1929. Canad. Ent. 61: 221. ♂ ♀.
Biology: Balduf, 1929. Canad. Ent. 61: 125–130.

whitmani (Girault). Md., Minn., S. Dak. Host: *Physonota unipunctata* (Say).
Aprostocetus whitmani Girault, 1916. Ent. Soc. Amer. Ann. 9: 296. ♂ ♀.
Aprostocetus marilandicus (!) Girault, 1917. Ent. News 28: 21. ♀.

xanthomelaenae (Rondani). N. Y., Conn., N. J., D. C. Host: *Galerucella xanthomelaena* (Schrank).
Oomyzus xanthomelaenae Rondani, 1872. Repertorio degli insetti parassiti e della loro vittime, v. 2, p. 16.
Biology: Berry, 1938. Jour. Agr. Res. 57: 859–863.

xanthops (Ratzeburg). Mass. Hosts: *Fenusa ulmi* (Sund.); *Heterarthrus nemoratus* (Fall.).
Eulophus xanthops Ratzeburg, 1844. Ichn. d. Forstins., v. 1, p. 170. ♀.
Biology: Berry, 1938. Jour. Agr. Res. 57: 859–863.—Dowden, 1941. U. S. Dept. Agr. Tech. Bul. 757: 8, 10, 32–35.

Genus APROSTOCETUS Westwood

Aprostocetus Westwood, 1833. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 2: 444.
Type: ***Aprostocetus caudatus*** Westwood. Monob.
Lonchentedon Ratzeburg, 1852. Ichn. d. Forstins., v. 3, p. 215.
Type: (***Eulophus longicaudatus*** Foerster)=***Aprostocetus caudatus*** Westwood. Monob.
Tetrastichomorpha Girault, 1913. Queensland Mus. Mem. 2: 227. N. syn.
Type: ***Tetrastichomorpha flava*** Girault. Orig. desig.
Neomphaloidomyia Girault, 1917. Brooklyn Ent. Soc. Bul. 12: 118. N. syn.
Type: ***Hyperteles polynemae*** Ashmead. Monob.

ajax (Girault), n. comb. D. C.
Tetrastichomorpha ajax Girault, 1916. U. S. Natl. Mus. Proc. 51: 132–133. ♀.

americanus Ashmead. N. H., Kans.
Aprostocetus americanus Ashmead, 1888. Canad. Ent. 20: 106. ♀.
Biology: Brandhorst, 1943. Kans. Acad. Sci. Trans. 46: 169.

animus Girault. N. Mex.
Aprostocetus animus Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 6. ♀.

bewicki Girault. Wash.
Aprostocetus bewicki Girault, 1917. New Chalcid Flies, p. 2. ♂ ♀.

canadensis Ashmead. Canada, Ohio. Hosts: "?*Cecidomyia* sp."; *Orellia florescentiae* (L.); ?*Crataepus fletcheri* Ashm.
Aprostocetus canadensis Ashmead, 1888. Canad. Ent. 20: 106. ♀.
Biology: Detmers, 1927. Ohio Agr. Expt. Sta. Bul. 414: 26–29, ♀.

cincinnatus (Girault), n. comb. Md.
Neomphaloides cincinnatus Girault, 1917. Psyche 24: 92. ♀.

diplosidis Crawford. La., Tex. Host: *Contarinia sorghicola* Coq.
Aprostocetus diplosidis Crawford, 1907. N. Y. Ent. Soc. Jour. 15: 180. ♂ ♀.
Biology: Dean, 1911. U. S. Dept. Agr. Bur. Ent. Bul. 85: (4) 55–57.—Walter, 1941. U. S. Dept. Agr. Tech. Bul. 778: 18.

fidius Girault. Miss., N. Mex.
Aprostocetus fidius Girault, 1917. New Eulophidae, p. 1. ♀.
Biology: Myers, 1930. Bul. Ent. Res. 21: 309–313.

granulatus Ashmead. Fla.
Aprostocetus granulatus Ashmead, 1888. Canad. Ent. 20: 105. ♀.
Tetrastichus microcosmus Girault, 1917. Descr. Stellarum Nov., p. 22. N. name.
Taxonomy: Burks, 1943. U. S. Natl. Mus. Proc. 93: 605.

irvingi (Girault), n. comb. N. Mex.
Neomphaloidella irvingi Girault, 1917. Brooklyn Ent. Soc. Bul. 12: 118. ♀.

kansasiae Girault, emend. Kans.
Aprostocetus kansasia Girault, 1917. Brooklyn Ent. Soc. Bul. 12: 88. ♀.

oviductus (Girault), n. comb. Md.
Epitetrastichus oviductus Girault, 1917 (1916). Insecutor Inscitiae Menstruus 4: 111. ♀.

polynemae (Ashmead), n. comb. N. Y., Ill. Host: *Polynema needhami* Ashm.
Hyperteles polynemae Ashmead, 1900. Ent. News 11: 615. ♂ ♀.

Genus SYNTOMOSPHYRUM Foerster

Syntomosphyrum Foerster, 1878. Naturh. Ver. Rheinlande Verh. 35: 60.
Type: *Syntomosphyrum fulvipes* Foerster. Monob.
Tetrastichopsis Girault, 1916. U. S. Natl. Mus. Proc. 51: 132.
Type: *Tetrastichopsis prionomeri* Girault. Monob.

esurus (Riley). N. B., Conn., N. J., Pa., D. C., W. Va., Ga., Ala., Tex. Hosts: *Chilocorus similis* (Rossi); *Hyphantria cunea* (Drury); *Alabama argillacea* (Hbn.); *Anomis erosa* (Hbn.); *Hemerocampa leucostigma* (A. and S.); *Nygmia phaeorrhoea* (Donov.); ?*Porthetria dispar* (L.); *Diatraea saccharalis* (F.); *Grapholitha molesta* (Busck); *Stenoma algidella* (Wlkr.).
Cirrospilus esurus Riley, 1879. Canad. Ent. 11: 162. ♂ ♀.
Syntomosphyrum orgyiae Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 343. ♀. N. syn.
Biology: Howard, 1897. U. S. Dept. Agr. Div. Ent. Tech. Ser. 5: 38–39.—Driggers, 1931. N. J. Agr. Expt. Sta. Ann. Rpt. 52: 192–193.

ischnopterae (Girault), n. comb. Md. Host: Eggs of *Ischnoptera* sp.
Epompaloides ischnopterae Girault, 1917. Ent. News 28: 257. ♂ ♀.

philodromi (Gahan), n. comb. Ohio. Host: *Philodromus aureolus* (Oliv.).
Tetrastichus philodromi Gahan, 1924. U. S. Natl. Mus. Proc. 65 (4): 18. ♂ ♀.
Biology: Auten, 1925. Ent. Soc. Amer. Ann. 18: 242.

prionomeri (Girault), n. comb. Tenn. Host: *Odontopus calceatus* Say.
Tetrastichopsis prionomeri Girault, 1916. U. S. Natl. Mus. Proc. 51: 132. ♀.

Genus PAROMPHALOIDOMYIIA Girault

Paromphaloidomyiia Girault, 1917. New Chalcid Flies, p. 1.
Type: *Paromphaloidomyiia homeri* Girault. Monob.

homeri Girault. Va.
Paromphaloidomyiia homeri Girault, 1917. New Chalcid Flies, p. 1

Genus MELITTOBIA Westwood

Melittobia Westwood, 1847. Ent. Soc. London Trans. 5: Proc. p. xviii, lxv.
Type: (*Melittobia audouinii* Westwood) = *Cirrospilus acasta* Walker. Monob.
Anthophorabia Newport, 1849. Gard. Chron., p. 183.
Type: (*Anthophorabia retusa* Newport) = *Cirrospilus acasta* Walker. Monob.
Aceratoneuromyia Girault, 1917. Insecutor Inscitiae Menstruus 5: 151.
Type: *Aceratoneuromyia australia* Girault. Monob.

chalybii Ashmead. N. Y., N. J., ?Pa., Va., La., B. C. Hosts: *Periplaneta americana* (L.); *Saperda candida* F.; *Pikonema alaskensis* (Roh.); *Sphecophaga burra* (Cress.); *Eumenes fraternus* Say; *Chalybion californicum* (Sauss.); *Sceliphron caementarium* (Drury); *Trypoxylon politum* (Say).
Melittobia chalybii Ashmead, 1892. Ent. Soc. Wash. Proc. 2: 231. ♂ ♀.
Biology: Buckell, 1928. Pan-Pacific Ent. 5: 14–22.—Schmieder, 1933. Biol. Bul. 65: 338–354.—Schmieder, 1938. Biol. Bul. 74: 256–266.—Schmieder, 1939. Ent. News 50: 128–131.—Flanders, 1944. Jour. Econ. Ent. 37: 410.

megachilis (Packard). Vt., N. J., Wis. Hosts: *Monodontomerus* sp.; *Pemphilis* sp.; *Megachile centuncularis* (L.); *Anthophora* sp.; *Ceratina* sp.
Anthophorabia megachilis Packard, 1864. Essex Inst. Proc. 4: 134. ♀.
Melittobia megalochilae Packard, 1906. Spolia Hym., p. 143. Emend.
Chrysocharis aeneus Brues, 1909 (1908). Wis. Nat. Hist. Soc. Bul. 6: 161. ♀.
Biology: Packard, 1859. Guide to Study of Insects, p. 206.

Genus CRATAEPUS Foerster

Crataepus Foerster, 1878. Naturh. Ver. Rheinlande Verh. 35: 61.
Type: *Crataepus aquisgranensis* Foerster. Monob.

fletcheri Ashmead. Ont. Hosts: *Orellia florescentiae* (L.); dipterous larvae in *Cirsium arvense*.
Crataepus Fletcherii Ashmead, 1892. Canad. Ent. 24: 309. ♀.

Subfamily ELACHERTINAE

Genus EUPLECTRUS Westwood

Euplectrus Westwood, 1832. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 1: 128.
Type: (*Euplectrus maculiventris* Westwood) = [*Pteromalus*] *bicolor* (Swederus). Monob.
Diplectron Dahlbom, 1857. Öfvers. Svenska Vetensk. Akad. Förh. 14: 292 (no species).
Type: *Pteromalus bicolor* Swederus. Desig. by Gahan and Fagan, 1923.
Pachyscapha Howard, 1897 (1896). Linn. Soc. London, Jour., Zool. 26: 159.
Type: *Pachyscapha insularis* Howard. Monob.
Revision: Girault, 1916. Canad. Ent. 48: 265.

bicolor (Swederus). Maine, Mass., N. J. Hosts: *Amathes c-nigrum* (L.); *Epiglaea apiata* Grote.
Pteromalus Bicolor Swederus, 1795. Svenska Vetensk. Akad. Handl. 16: 204.
Biology: Lacroix, 1924. Ent. News 35: 217.—Beckwith, 1929. N. Y. Ent. Soc. Jour. 37: 415.

catocalae Howard. N. J., Md., Ill., Mo. Hosts: *Catocala* sp.; geometrid on birch.
Euplectrus catocalae Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 27. ♂ ♀.

comstockii Howard. Conn. to N. C.; Fla. to Tex. and Kans.; S. Dak., Ariz. Hosts: *Alabama argillacea* (Hbn.); *Autographa* sp.; *Heliothis armigera* (Hbn.); *Laphygma frugiperda* (A. and S.); *Plathypena scabra* (F.); *Prodenia ornithogalli* Guen.; *Trichoplusia ni* (Hbn.); geometrid.
Euplectrus Comstockii Howard, 1880. Canad. Ent. 12: 158. ♂.
Biology: Schwarz, 1881. Amer. Nat. 15: 61–63.—Howard, 1914 (1913). Ent. Soc. Wash. Proc. 15: 161.—Luginbill, 1928. U. S. Dept. Agr. Tech. Bul. 34: 72–73.—Bibby, 1942. Jour. Econ. Ent. 35: 943.

frontalis Howard. Ont., Que., N. H., N. J., Va., Kans. Hosts: *Amathes c-nigrum* (L.); phalaenid larva on walnut; yellow geometrid larva.
Euplectrus frontalis Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 27. ♀.
Biology: Fyles, 1896. Ent. News 7: 44.

hircinus (Say). Ind., Kans.
Eulophus hircinus Say, 1836. Boston Jour. Nat. Hist. 1: 274.

insularis (Howard). Fla.
Pachyscapha insularis Howard, 1896. Linn. Soc. London, Jour., Zool. 26: 159. ♂.

junctus Gahan. Fla. Host: *Isoparce cupressi* (Bdvl.).
Euplectrus junctus Gahan, 1927. U. S. Natl. Mus. Proc. 71 (4): 30. ♀.

leucotrophis Howard. Fla. Hosts: Arctiid larva; phalaenid larva.
Euplectrus leucotrophis Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 26. ♂.

marginatus Ashmead. Fla. Host: Phalaenid larva.
Euplectus (!) ***marginatus*** Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xviii. ♂ ♀.

mellipes Provancher. Ont., Que. Hosts: *Feralia jocosa* Guen.; *Coleophora laricella* (Hbn.).
Euplectrus mellipes Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 207. ♀.

pachyscapha Girault. Kans.
Euplectrus pachyscapha Girault, 1917. New Chalcid Flies, p. 2. ♂ ♀.

plathypenae Howard. N. J. to Fla., Tex. and Kans. Hosts: *Protoparce sexta* (Johan.); *Cirphis unipuncta* (Haw.); *Heliothis armigera* (Hbn.); *Laphygma exigua* (Hbn.); *L. frugiperda* (A. and S.); *Leucania latiuscula* H.-S.; ?*L. multilinea* Wlkr.; *Peridroma margaritosa* (Haw.); *Plathypena scabra* (F.); *Prodenia ornithogalli* Guen.; *P. sunia* (Guen.); *Diatraea saccharalis* (F.).
Euplectrus platyhypenae (!) Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 26. ♂ ♀.
Biology: Vickery, 1929. U. S. Dept. Agr. Tech. Bul. 138: 16–21, 42–45, 55–59.—Wilson, 1933. Fla. Ent. 17: 3, 7–12.

semimarginatus Girault. Host: *Aphis rumicis* L.
Euplectrus semimarginatus Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 1. ♀.

Genus EUPLECTROMORPHA Girault

Euplectromorpha Girault, 1913. Queensland Mus. Mem. 2: 276.
Type: ***Euplectromorpha unifasciata*** Girault. Orig. desig.

americana Girault. Md.
Euplectromorpha americana Girault, 1916. Insecutor Inscitiae Menstruus 4: 114. ♂.

Genus DIAULINOPSIS Crawford

Diaulinopsis Crawford, 1912. U. S. Natl. Mus. Proc. 43: 182.
Type: ***Diaulinopsis callichroma*** Crawford. Monob.

Achrysocharelloidea Girault, 1913. Roy. Soc. So. Australia Trans. 37: 109. N. syn.
Type: ***Achrysocharelloidea pax*** Girault. Monob.

albiscapus (Girault), n. comb. Md.
Achrysocharelloidea albiscapus Girault, 1916. Canad. Ent. 48: 336. ♀.

callichroma Crawford. Ind., Fla., Miss., Ariz. Hosts: *Agromyza scutellata* Fall.; *Calycomyza artemisiae* (Kltb.); *Cerodonta dorsalis* Loew; *Liriomyza pusilla* Meig.
Diaulinopsis callichroma Crawford, 1912. U. S. Natl. Mus. Proc. 43: 183. ♂ ♀.

Genus ARDALUS Howard

Ardalus Howard, 1896. Linn. Soc. London, Jour., Zool. 26: 161.
Type: ***Ardalus aciculatus*** Howard. Desig. by Ashmead, 1904.
Revision: Gahan, 1922. U. S. Natl. Mus. Proc. 61 (24): 20.

insuetus (Gahan). Fla. Host: *Lerema accius* (A. and S.).
Euplectrus insuetus Gahan, 1914. U. S. Natl. Mus. Proc. 48: 164. ♀.
Biology: Ainslie, 1922. Fla. Ent. 6: 14.
Taxonomy: Gahan, 1922. U. S. Natl. Mus. Proc. 61 (24): 19–20.

Genus PARAOLINX Ashmead

Paraolinx Ashmead, 1894. Linn. Soc. London, Jour., Zool. 25: 166.
Type: ***Paraolinx lineatifrons*** Ashmead. Monob.
Leucodesmia Howard, 1895. U. S. Dept. Agr. Insect Life 7: 403.
Type: ***Leucodesmia typica*** Howard. Monob.

nigriventris (Girault). Va., Fla. Hosts: *Grapholitha molesta* (Busck); *Pyroderces rileyi* (Wlsm.).
Leucodesmia nigriventris Girault, 1916. U. S. Natl. Mus. Proc. 51: 46. ♀.

typica (Howard). Conn., N. J., Fla. Hosts: Coleopterous larva ex stem of *Ambrosia artemisifoliae*, probably *Dicymolomia julianalis* (Wlkr.); *Laetilia coccidivora* Comst.; *?Thyridopteryx ephemeraeformis* (Haw.); larva ex fruit cluster of *Rhus*.
Leucodesmia typica Howard, 1895. U. S. Dept. Agr. Insect Life 7: 402. ♂ ♀.

Genus STENOMESIUS Westwood

Stenomesius Westwood, 1833. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 3: 343.
Type: ***Stenomesius pulchellus*** Westwood. Desig. by Westwood, 1840.

harrisinae Ashmead. N. J., Fla. Host: *Harrisina americana* (Guér.).
Stenomesius harrisinae Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 200. ♀.

Genus MIOTROPIS Thomson

Miotropis Thomson, 1878. Hym. Scand., v. 5, pp. 187, 197.
Type: ***Miotropis sulcicristata*** Thomson. Desig. by Ashmead, 1904.
Mionotropis Schulz, 1906. Spolia Hym., p. 143. Emend.
Tetrastichomyia Girault, 1916. U. S. Natl. Mus. Proc. 51: 48.
Type: ***Miotropis clisiocampae*** Ashmead. Monob.

clisiocampae Ashmead. Conn., N. J., Va., W. Va., Ohio, Ill. Hosts: *Achatodes zeae* (Harr.); *Malacosoma americanum* (F.); *Diatraea zeacolella* Dyar; *Pyrausta nubilalis* (Hbn.); *Grapholitha molesta* (Busck); *Microplitis gortynae* Riley.
Miotropis clisiocampae Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 341. ♀.
Biology: Balduf, 1929. Ohio Jour. Sci. 29: 227–228.—Proper, 1934. Jour. Agr. Res. 48: 370.

orgyiae (Girault), n. comb. D. C. Host: *Hemerocampa leucostigma* (A. and S.).
Tetrastichomyia orgyiae Girault, 1916. Brooklyn Ent. Soc. Bul. 11: 111. ♀.

silvensis (Girault), n. comb. Md.
Tetrastichomyia silvensis Girault, 1919. Brooklyn Ent. Soc. Bul. 11: 111. ♀.

Genus ELACHERTUS Spinola

Elachertus Spinola, 1811. Paris Mus. Hist. Nat. Ann. 17: 151.
Type: ***Diplolepis lateralis*** Spinola. Desig. by Gahan and Fagan, 1923.
Microterus Spinola, 1811. Paris Mus. Hist. Nat. Ann. 17: 151.
Type: ***Diplolepis petiolata*** Spinola. Desig. by Gahan and Fagan. 1923.
Elachestus Nees, 1834. Hym. Ichn. Aff. Monog., v. 2, p. 135. Emend.
Elachistus Foerster, 1856. Hym. Stud., v. 2, p. 73. Emend.
Epardalus Girault, 1917. Descr. Hym. Chalcidoid Variorum cum Observ. III, p. 5. N. syn.
Type: ***Elachistus cidariae*** Ashmead. Orig. desig.

aeneoniger Girault. Ont., N. Y., Ohio. Hosts: *Ancylis comptana* (Froel.); *Argyrotaenia pinitubana* (Kearf.); *Argyresthia oreasella* Clem.
Elachistus aeneoniger Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 2. ♀.

cacoeciae Howard. N. H., Mass., N. J., Pa., D. C., Va., Mo., Utah. Hosts: *Hyphantria cunea* (Drury); *Heterocampa guttivitta* (Wlkr.); *Schizura unicornis* (A. and S.); *Ancylis comptana fragariae* (W. and R.); *Archips argyrospila* (Wlkr.); *A. rosaceana* (Harr.); *Argyrotaenia velutinana* (Wlkr.); *Eulophus orgyiae* (Fitch).
Elachistus cacoeciae Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 28. ♂.

cidariae Ashmead. N. H., Mass. Host: *Lygris diversilineata* (Hbn.).
Elachistus cidariae Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 157. ♀.
Taxonomy: Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 5.

coxalis Howard. Mich., D. C., Calif. Host: *Polychrosis viteana* (Clem.).
Elachistus coxalis Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 28. ♀.

glacialis Ashmead. Alaska.
Elachistus glacialis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 147. ♂ ♀.

hyphantriae Crawford. N. Y., N. J., Colo. Hosts: *Hyphantria cunea* (Drury); *Hemerocampa plagiata* (Wlkr.).
Elachertus hyphantriae Crawford, 1911. U. S. Natl. Mus. Proc. 39: 622. ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 37, 155.

levana Walker. Fla.
Elachestus Levana Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 27. ♀.

louisianae (Girault), emend, n. comb. La.
Epardalus louisiana Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 5. ♀.

marylandicus Girault. Mass., Conn., N. J., Md. Hosts: *Diacrisia virginica* (F.); *Hyphantria cunea* (Drury).
Elachistus marylandicus Girault, 1916. Brooklyn Ent. Soc. Bul. 11: 112. ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 36, 155.

multidentatus (Girault), n. comb. Fla.
Parentedon multidentatus Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 5. ♀.

pini Gahan. Maine, Vt., Mass., Va., Mich. Hosts: *Dioryctria* sp.; *Rhyacionia frustrana* (Comst.).
Elachertus pini Gahan, 1927. Jour. Agr. Res. 34: 547. ♂ ♀.
Biology: Cushman, 1927. Jour. Agr. Res. 34: 617.

proteoteratis Howard. Conn., N. J., Pa., Mo. Hosts: *Proteoteras aesculana* Riley; *Stenoma algidella* (Wlkr.).
Elachistus proteoteratis Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 27. ♀.

spilosomatis Howard. N. J. Host: *Diacrisia virginica* (F.).
Elachistus spilosomatis Howard, 1891. U. S. Dept. Agr. Insect Life 4: 195.

viridaeneus (Provancher), n. comb. Ont.
Euplectrus viridaeneus Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 207; errata. ♀.

Genus HYSSOPUS Girault

Hyssopus Girault, 1916. Canad. Ent. 48: 115.
Type: *Hyssopus thymus* Girault. Monob.
Hyssopiscus Ghesquière, 1946. Rev. Zool. Bot. Africaines 34: 370. N. name.

benefactor (Crawford), n. comb. N. Y. Host: *Petrova comstockiana* (Fern.).
Elachertus benefactor Crawford, 1912. U. S. Natl. Mus. Proc. 43: 182. ♀.

evetriae (Girault). Minn., Idaho, Oreg. Hosts: ?*Barbara colfaxiana colfaxiana* (Kearf.); *Barbara colfaxiana taxifoliella* (Busck); *Melissopus latiferreanus* (Wlsm.); *Petrova albicapitana* Busck.
Elachistus evetriae Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 1. ♀.
Biology: Dohanian, 1942. Jour. Econ. Ent. 35: 837, 840.

johannseni (Crawford), n. comb. Maine.
Elachertus johannseni Crawford, 1912. U. S. Natl. Mus. Proc. 43: 181. ♀.

novus Girault. Calif.
Hyssopus novus Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 3. ♀.

rhyacioniae Gahan. Va. Host: *Rhyacionia frustrana* (Comst.).
Hyssopus rhyacioniae Gahan, 1927. Jour. Agr. Res. 34: 546. ♂ ♀.
Biology: Cushman, 1927. Jour. Agr. Res. 34: 617.—Underhill, 1943. Va. Agr. Expt. Sta. Bul. 349: 12.

sanninoideae (Girault). Conn., Va., Ark. Hosts: *Sanninoidea exitiosa* (Say); *Thamnosphecia scitula* (Harr.).
Elachistus sanninoideae Girault, 1917. Brooklyn Ent. Soc. Bul. 12: 85. ♂ ♀.
Biology: Underhill, 1935. Jour. Econ. Ent. 28: 396.

thymus Girault. Conn., Va., Nebr., Calif. Hosts: *Dioryctria xanthoenobares* Dyar; *Rhyacionia buoliana* (Schiff.); *R. frustrana* (Comst.).
Hyssopus thymus Girault, 1916. Canad. Ent. 48: 115. ♀.
Biology: Slate, 1936. Conn. Agr. Expt. Sta. Bul. 381: 181.—Friend, Plumb, and Hicock, 1938. Jour. Econ. Ent. 31: 511.

Genus PSEUDOLYNX Girault

Pseudolynx Girault, 1916. Ent. News 27: 152.
Type: *Pseudolynx io* Girault. Orig. desig.

flavimaculata Girault. Minn.
Pseudolynx flavimaculatus Girault, 1916. Ent. News 27: 153. ♀.

io Girault. Mass.
Pseudolynx io Girault, 1916. Ent. News 27: 152. ♀.

marylandia Girault, emend. Md.
Pseudolynx marilandia Girault, 1917. Chalcidoidea Nova Marilandensis [I], p. 1. ♀.

Genus MIROLYNX Girault

Mirolynx Girault, 1916. U. S. Natl. Mus. Proc. 51: 131.
Type: *Mirolynx flavitibiae* Girault. Monob.

flavitibiae Girault. Calif.
Mirolynx flavitibiae Girault, 1916. U. S. Natl. Mus. Proc. 51: 131. ♂ ♀.

Genus GROTIUSOMYIA Girault

Grotiusomyia Girault, 1917. Psyche 24: 95.
Type: *Grotiusomyia flavicornis* Girault. Monob.

flavicornis Girault. D. C., N. C. Host: Pyralid leaf miner on oak.
Grotiusomyia flavicornis Girault, 1917. Psyche 24: 95. ♀.
Taxonomy: Girault, 1918. Ent. News 29: 126.

Genus APTEROLOPHUS Gahan

Apterolophus Gahan, 1919. Ent. Soc. Wash. Proc. 21: 3.
Type: *Apterolophus pulchricornis* Gahan. Monob.

pulchricornis Gahan. N. Y. Host: ?*Proteides clarus* (Cram.).
Apterolophus pulchricornis Gahan, 1919. Ent. Soc. Wash. Proc. 21: 3. ♀

Genus GIRAULTIA Gahan and Fagan

Cirrospilopsis Girault, 1915. Queensland Mus. Mem. 3: 263. Preocc.
Type: *Cirrospilopsis nigrivariegatus* Girault. Orig. desig.
Giraultia Gahan and Fagan, 1923. U. S. Natl. Mus. Bul. 124: 66. N. name.
Type: *Cirrospilopsis nigrivariegatus* Girault. Autob.

fuscipennis (Girault), n. comb. Md.
Cirrospilopsis fuscipennis Girault, 1916. Ent. Soc. Amer. Ann. 9: 293. ♀.

metallicus (Girault), n. comb. Md.
Cirrospilopsis metallicus Girault, 1917. Psyche 24: 100. ♀.

sapientia (Girault), n. comb. D. C.
Cirrospilopsis sapientia Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 13. ♀.

Genus CIRROSPILOIDEUS Ashmead

Cirrospiloideus Ashmead, 1904. Carnegie Mus. Mem. 1: 354, 355.
Type: *Miotropis platynotae* Howard. Monob.
Alophus Ashmead, 1904. Carnegie Mus. Mem. 1: 353, 519. Preocc. N. syn.
Type: *Alophus flavus* Ashmead. Orig. desig.
Alophomyia Ashmead, 1904. Ent. Soc. Wash. Proc. 6: 126. N. name. N. syn.
Diglyphomorphomyia Girault, 1913. Queensland Mus. Mem. 2: 281.
Type: *Diglyphomorphomyia nigriscutellum* Girault. Monob.
Sympiesomorphelleus Girault, 1913. Arch. f. Naturgesch. 79A (6): 75.
Type: *Sympiesomorphelleus suttneri* Girault. Monob.

bicoloriceps (Girault), n. comb. La. Host: *Keiferia glochinella* (Zell.).
Sympiesomorphelleus bicoloriceps Girault, 1919. Ent. Soc. Amer. Ann. 9: 302. ♀.

californicus (Girault), n. comb. Calif.
Sympiesomorphelleus californicus Girault, 1916. Jour. Ent. and Zool. 8: 119. ♀.

johnsoni Girault. Maine, D. C., Ill. Host: ?*Carpocapsa pomonella* (L.).
Cirrospiloideus johnsoni Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 7. ♀.

mediolineatus Girault. Md.
Cirrospiloideus mediolineatus Girault, 1917. Chalcidoidea Nova Marilandensis II, p. 2. ♀.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 198, ♀.

nigriceps (Girault). Tex.
Sympiesomorphelleus nigriceps Girault, 1916. U. S. Natl. Mus. Proc. 51: 44. ♀.

nigriprothorax (Girault). Kans.
Sympiesomorphelleus nigriprothorax Girault, 1916. U. S. Natl. Mus. Proc. 51: 131. ♀.

platynotae (Howard). Fla. Host: *Platynota rostrana* (Wlkr.).
Miotropis platynotae Howard, 1885. *In* Hubbard, Insects Affecting the Orange, p. 217. ♂ ♀.

seminigriventris Girault. Pa., Ohio. Host: *Eurukuttarus confederata* (Grote).
Cirrospiloideus seminigriventris Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 1. ♀.

Genus CIRROSPILUS Westwood

Cirrospilus Westwood, 1832. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 1: 128.
Type: ***Cirrospilus elegantissimus*** Westwood. Monob.
Pseudiglyphomyia Girault, 1913. Queensland Mus. Mem. 2: 267.
Type: ***Pseudiglyphomyia biguttata*** Girault. Orig. desig.
Atoposomoidea Howard, 1910. U. S. Dept. Agr. Bur. Ent. Tech. Bul. 19: 9 N. syn.
Type: ***Atoposomoidea ogimae*** Howard. Monob.

americanus (Girault), n. comb. Ohio.
Pseudiglyphomyia americana Girault, 1916. U. S. Natl. Mus. Proc. 51: 43, 45, 48. ♀.

cinctithorax (Girault). Maine, Ill., Wis. Hosts: *Coleophora pruniella* Clem.; *C. salmani* Heinr.; *Phyllocnistis populiella* Chamb.; *Phyllonorycter tremuloidiella* (Braun); *Bucculatrix canadensisellea* Chamb.; *Heterarthrus nemoratus* (Fall.); ?*Apanteles melanoscelus* (Ratz.); *Meteorus versicolor* (Wesm.).
Pseudiglyphomyia cinctithorax Girault, 1916. U. S. Natl. Mus. Proc. 51: 45. ♀.
Biology: Proper, 1934. Jour. Agr. Res. 48: 366.–Doner, 1936. Ent. Soc. Amer. Ann. 29: 226.

columbiae (Girault), emend., n. comb. D. C.
Pseudiglyphomyia columbia Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, pp. 6, 7. ♀.

coptodiscae (Girault). New England, Ky. Hosts: *Coptodisca splendoriferella* (Clem.); ?*Apanteles melanoscelus* (Ratz.).
Pseudiglyphomyia coptodiscae Girault, 1916. Canad. Ent. 48: 266. ♂ ♀.

eunapius Walker. Fla.
Cirrospilus Eunapius Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 27. ♀.

flavicinctus Riley. Maine to D. C., Mo., Kans. and north to Minn.; Wash. Hosts: *Archips semiferana* (Wlkr.); *Coptodisca splendoriferella* (Clem.); *Coleophora malivorella* Riley; *C. pruniella* Clem.; *C. salmani* Heinr.; *Bucculatrix pomifoliella* Clem.; ?*Tischeria malifoliella* Clem.; *Heterarthrus nemoratus* (Fall.); ?*Apanteles melanoscelus* (Ratz.).
Cirrospilus flavicinctus Riley, 1883. *In* Lintner, First Ann. Rpt. Injurious Ins. N. Y., p. 159. ♂ ♀.
Cirrospilus flavomaculatus Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 341. ♀.
Biology: [Christensen], 1934. Wis. Agr. Expt. Sta. Bul. 428: 101.—Doner, 1936. Ent. Soc. Amer. Ann. 29: 233–234.

flavifacies (Girault), n. comb. Calif.
Pseudiglyphomyia flavifacies Girault, 1916. U. S. Natl. Mus. Proc. 51: 43. ♀.

flavoviridis Crawford. Utah, Nev. Hosts: *Agromyza parvicornis* Loew; *A. pusilla* Meig.; *A. scutellata* Fall.; *Cerodonta femoralis* Meig.
Cirrospilus flavoviridis Crawford, 1913. U. S. Natl. Mus. Proc. 45: 317. ♂ ♀.

giraulti Peck, n. name. U. S. Host: *Bucculatrix* sp.
Pseudiglyphomyia pulchra Girault, 1916. U. S. Natl. Mus. Proc. 51: 45. ♀. Preocc. by Masi, 1911.

inimicus Gahan. Ill. Host: *Gambrus extrematis* (Cress.).
Cirrospilus inimicus Gahan, 1934. Ent. Soc. Wash. Proc. 36: 123. ♂ ♀.
Biology: Marsh, 1938. N. Y. Ent. Soc. Jour. 46: 27–29.

marylandi Girault. Conn., Md., N. C. Hosts: *Coptodisca* sp.; ?*Apanteles melanoscelus* (Ratz.).
Cirrospilus marilandi Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 4. ♀.
Cirrospilus marylandi Britton, 1920. Conn. State Geol. and Nat. Hist. Survey Bul. 31: 324. Emend.

marylandicus (Girault), emend, n. comb. Md.
Pseudiglyphomyia marilandica Girault, 1917. Psyche 24: 91. ♀.

niger Howard. N. J. Hosts: *Vanessa atalanta* (L.); *Eulophus* sp.
Cirrospilus niger Howard, 1889. *In* Scudder, Butterflies of Eastern U. S. and Canada, p. 1872. ♂ ♀.

nigrivariegata (Girault). Ind., Iowa, Kans., S. Dak. Hosts: *Callisto geminatella* (Pack.); *Tischeria malifoliella* Clem.
Pseudiglyphomyia nigrivariegata Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 7. ♀.

ocellatus Girault. Que., Conn., Ill. Host: *Bucculatrix canadensisella* Chamb.
Cirrospilus ocellatus Girault, 1917. U. S. Natl. Mus. Proc. 53: 446. ♀.

ovisugosus Crosby and Matheson. N. Y. Host: *Poecilocapsus lineatus* (F.).
Cirrospilus ovisugosus Crosby and Matheson, 1915. Canad. Ent. 47: 181. ♂ ♀.

pictus (Nees). Ont., Que., Maine. Hosts: *Coleophora laricella* (Hbn.). *Fenusa pusilla* (Klug); *Heterarthrus nemoratus* (Fall.).
Eulophus pictus Nees, 1834. Hym. Ichn. Aff. Monog., v. 2, p. 165. ♂ ♀.
Biology: Dowden, 1941. U. S. Dept. Agr. Tech. Bul. 757: 8–9, 37–41. ♀.
Taxonomy: Ferrière, 1933. *In* Thorpe, Bul. Ent. Res. 24: 289–290.

pulcheria Girault. Kans.
Cirrospilus pulcheria Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 8. ♀.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 195.

purpureus Ashmead. Fla.
Cirrospilus purpureus Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 133. ♀.

unguttatipennis (Girault), n. comb. Calif.
Pseudiglyphomyia unguttatipennis Girault, 1916. Jour. Ent. and Zool. 8: 120. ♀.

Genus ZAGRAMMOSOMA Ashmead

Hippocephalus Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VII. Preocc.
Type: ***Hippocephalus multilineatus*** Ashmead. Monob.
Zagrammosoma Ashmead, 1904. Carnegie Mus. Mem. 1: 354. N. name.
Zagrammatosoma Schulz, 1906. Spolia Hym., p. 142. Emend.
Atoposoma Masi, 1907. Lab. Zool. Gen. e. Agr. Portici Bol. 1: 276.
Type: ***Atoposoma variegatum*** Masi. Monob.

americanum Girault. Colo.
Zagrammosoma americana Girault, 1916. U. S. Natl. Mus. Proc. 51:125, 126. ♀.

centrolineatum Crawford. Calif. Hosts: *Cameraria mediodorsella* (Braun); *Gracilaria ?alnivorella elongella* (L.).
Zagrammosoma centrolineata Crawford, 1913. U. S. Natl. Mus. Proc. 45: 256. ♀.

flavolineatum Crawford. Colo., Calif. Host: *Gnorimoschema operculella* (Zell.).
Zagrammosoma flavolineata Crawford, 1913. U. S. Natl. Mus. Proc. 45: 255. ♀.

interlineatum Girault. D. C.
Zagrammosoma interlineata Girault, 1916. U. S. Natl. Mus. Proc. 51: 125. ♀.

mirum Girault. Calif.
Zagrammosoma mira Girault, 1916. Jour. Ent. and Zool. 8: 119. ♀.

multilineatum multilineatum (Ashmead). Md., D. C., S. C., W. Va., Fla., Ohio, Ind., La., Kans. Hosts: *?Microrhopala xerene* (Newm.); *?Exoteleia pinifoliella* (Chamb.); *Callisto geminatella* (Pack.); *Phyllocnistis magnoliella* Ashm.; *?Cameraria hamadryadella* (Clem.); *Lithocolletis* sp.; *?L. ostensackenella* (Fitch); *Tischeria malifoliella* Clem.; *Agromyza parvicornis* Loew; *A. pusilla* Loew; *A. scutellata* Fall.; *Phytomyza aquilegiae* Hardy.
Hippocephalus multilineatus Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VII. ♂ ♀.
Biology: Phillips, 1914 Jour. Agr. Res. 2: 27.

multilineatum puniceum Girault. D. C., Ill. Host: *Tischeria malifoliella* Clem.
Zagrammosoma multilineata var. ***punicea*** Girault, 1911. Arch. f. Naturgesch. 77 (1), sup. 2: 123. ♀.

nigrolineatum Crawford. Maine, Calif. Hosts: ?*Aleyrodes* sp.; *Argyresthia thuiella* (Pack.).
Zagrammosoma nigrolineata Crawford, 1913. U. S. Natl. Mus. Proc. 45: 257. "♀"=♂.

sanguineum Girault. Colo.
Zagrammosoma sanguinea Girault, 1916. U. S. Natl. Mus. Proc. 51: 133. ♀.

Genus STENOMESIOIDEUS Ashmead

Stenomesioideus Ashmead, 1904. Carnegie Mus. Mem. 1: xi (emend.), 355 (*Stenomesioidea*), 389 (*Stenomesiodeus*).
Type: *Stenomesioideus melleus* Ashmead. Monob.
Stenomesioidea Girault, 1916. U. S. Natl. Mus. Proc. 51: 43.
Type: ***Stenomesioidea mellea*** Girault. Monob.

melleus Ashmead. No. Amer.
Stenomesioideus melleus Ashmead, 1904. Carnegie Mus. Mem. 1: xi, 355. ♀.
Stenomesioidea mellea Girault, 1916. U. S. Natl. Mus. Proc. 51: 44. ♀.

Subfamily ENTEDONTINAE

Genus ASTICHUS Foerster

Astichus Foerster, 1856. Hym. Stud., v. 2, pp. 78, 80.
Type: ***Euderus arithmeticus*** Foerster. Monob.

arizonensis Ashmead. Ariz.
Astichus arizonensis Ashmead, 1888. Canad. Ent. 20: 101. ♂.

auratus Ashmead. Fla. Host: Gall of *Neuroterus minutissimus* Ashm.
Astichus auratus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 200. ♀.

pulchrilineatus Gahan. Va., ?N. Y. Hosts: *Brachycis brevicollis* Casey; *B.* sp.; *Ceracis* sp.
Astichus pulchrilineatus Gahan, 1927. U. S. Natl. Mus. Proc. 71 (4): 28. ♂ ♀.

Genus EUOPHTHALMOMYIA Ashmead

Euophthalmomyia Ashmead, 1904. Carnegie Mus. Mem. 1: 339, 340.
Type: ***Euophthalmomyia pallidipes*** Ashmead. Monob.

pallidipes Ashmead. D. C.
Euophthalmomyia pallidipes Ashmead, 1904. Carnegie Mus. Mem. 1: 339, 375. ♀.

Genus OMPHALE Haliday

Omphale Haliday, 1833. Ent. Mag. 1: 339.
Type: ***Omphale salicis*** Haliday. Monob.
Smaragdites Westwood, 1833. Mag. Nat. Hist. 6: 419.
Type: (***Smaragdites admirabilis*** Westwood)=***Omphale salicis*** Haliday. Monob.

bicincta Ashmead. W. Va., Fla. Host: ?*Chalepus dorsalis* Thunb.
Omphale bicincta Ashmead, 1888. Canad. Ent. 20: 103. ♂.

Genus HUBBARDIELLA Ashmead

Hubbardiella Ashmead, 1904. Carnegie Mus. Mem. 1: 339, 340.
Type: ***Hubbardiella arizonensis*** Ashmead. Monob.
Miromphalomyia Girault, 1916. Entomologist 49: 249.
Type: (***Miromphalomyia perilampoides*** Girault)=***Hubbardiella arizonensis*** Ashmead. Monob.

arizonensis Ashmead. Ariz.
Hubbardiella arizonensis Ashmead, 1904. Carnegie Mus. Mem. 1: 339, 378. ♀.
Miromphalomyia perilampoides Girault, 1916. Entomologist 49: 250. ♀.

Genus CLOSTEROCERUS Westwood

Closterocerus Westwood, 1833. Mag. Nat. Hist. 6: 419.
Type: ***Closterocerus trifasciatus*** Westwood. Monob.
Revision: Crawford, 1912. U. S. Natl. Mus. Proc. 43: 175.

cinctipennis Ashmead. Que., Conn., N. J., D. C., Fla., Mo., Iowa. Hosts: *Brachys aerosus* Melsh.; *B. ovatus* Web.; *Cameraria hamadryadella* (Clem.); *C. ulmella* (Chamb.); *Bucculatrix canadensisella* Chamb.; *Nepticula gossypii* F. and L.; *Caliroa cerasi* (L.); *Neodiprion rugifrons* Midd.; *N. swainei* Midd.
Closterocerus cinctipennis Ashmead, 1888. Canad. Ent. 20: 104. ♂.
Biology: Webster, 1911. Ent. Soc. Amer. Ann. 4: 185.—Weiss and Nicolay, 1918. Psyche 25: 128–130.—Schedl, 1939. Seventh Internatl. Kong. Ent. Verh. 3, pp. 2066–2090.

tau Girault. Calif.
Closterocerus tau Girault, 1917. Psyche 24: 101. ♀.

tricinctus (Ashmead). Ont., Maine to Va.; Mich., Ind., Iowa, Kans. Hosts: *Microrhopala xerene* (Newm.); *Cosmopteryx* sp. in *Carex vesicaria*; *Recurvaria thujaella* Kearf.; *Argyresthia thuiella* (Pack.); *Coptodisca splendoriferella* (Clem.); *Cameraria guttifinitella* (Clem.); *Phyllocnistis populiella* Chamb.; *Lithocolletis* sp. on sycamore; *L. lucetiella* Clem.; *L. tremuloidiella* Braun; *Tischeria malifoliella* Clem.; *Agromyza melampyga* Loew; *A. parvicornis* Loew; *Phytomyza aquilegiae* Hardy; *P. ilicis* Curtis; *P. obscurella* Fall.
Pleurotropis tricincta Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VIII. ♀.

utahensis californicus Girault. Calif.
Closterocerus utahensis var. ***californicus*** Girault, 1916. U. S. Natl. Mus. Proc. 51: 46. ♀.

utahensis cincinnatus Girault. Ohio. Host: Cynipid.
Closterocerus utahensis cincinnatus Girault, 1916. U. S. Natl. Mus. Proc. 51: 47. ♂.

utahensis utahensis Crawford. Conn., Md., Utah, Ariz., Calif. Hosts: *Symydobius chrysolepis* Swain; *Bucculatrix thurberiella* Busck; *Agromyza parvicornis* Loew; *A. scutellata* Fall.; *Liriomyza pusilla* Meig.; *Phytomyza aquilegiae* Hardy; *Fenusa pusilla* (Klug).
Closterocerus utahensis Crawford, 1912. U. S. Natl. Mus. Proc. 43: 175. ♀.
Biology: Clancy, 1946. Jour. Econ. Ent. 39: 328.

winnemanae Crawford. Md. Host: *Winnemana argei* Cwfd.
Closterocerus winnemanae Crawford, 1912. U. S. Natl. Mus. Proc. 43: 176. ♂ ♀.

Genus EPRHOPALOTUS Girault

Eprhopalotus Girault, 1916. U. S. Natl. Mus. Proc. 51: 49.
Type: ***Eprhopalotus purpureithorax*** Girault. Monob.

purpureithorax Girault. U. S. Host: *Cynips* sp. from gall of *Cincticornia pilulae* Walsh.
Eprhopalotus purpureithorax Girault, 1916. U. S. Natl. Mus. Proc. 51: 49. ♀.

Genus EMERSONELLA Girault

Emersonella Girault, 1916. Soc. Ent. 31: 36.
Type: ***Emersonella lemae*** Girault. Monob.
Revision: Girault, 1922. No. Amer. Spp. of *Emersonella* and *Entedon*. One page.

lemae Girault. D. C., Va. Egg host: *Lema trilineata* (Oliv.).
Emersonella lemae Girault, 1916. Soc. Ent. 31: 36. ♂ ♀.
Biology: Chittenden, 1924. Ent. Soc. Wash. Proc. 26: 46.

niveipes Girault. N. Y., D. C. Host: Eggs of *Chelymorpha cassidea* (F.).
Emersonella niveipes Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 3. ♀.

Genus EUDERUS Haliday

Euderus Haliday, 1844 (1843). Ent. Soc. London Trans. 3: 298.
Type: *Entedon amphis* Walker. Monob.
Secodella Girault, 1913. Arch. f. Naturgesch. 79A (6): 48.
Type: *Secodella lineata* Girault. Monob.
Omphalomorpha Girault, 1913. Arch. f. Naturgesch. 79A (6): 103.
Type: *Omphalomorpha viridis* Girault. Monob.
Allomphale Silvestri, 1914. Lab. Zool. Gen. e Agr. Portici Bol. 9: 217.
Type: *Allomphale cavasolae* Silvestri. Monob.
Revisions: Crawford, 1915. Ent. Soc. Wash. Proc. 17: 142 (*Secodella*).—Girault, 1924. Insecutor Inscitiae Menstruus 12: 94.

acrobasis (Crawford), n. comb. Ga., Fla., Idaho. Hosts: *Acrobasis caryae* Grote; *A. juglandis* (LeB.); *Carpocapsa pomonella* (L.).
Secodella acrobasis Crawford, 1915. Ent. Soc. Wash. Proc. 17: 143. ♂ ♀.
Biology: Wakeland, 1929. Jour. Econ. Ent. 22: 985.

amphis (Walker). Ont. Host: *Coleophora laricella* (Hbn.).
Entedon Amphis Walker, 1839. Monog. Chalciditum, v. 1, p. 106. ♀.
Taxonomy: Graham, 1944. Ent. Soc. Ontario Ann. Rpt. 74: 49.

argyresthiae (Crawford). N. Y., Minn., Wash. Hosts: *Cylindrocopturus furnissi* Buch.; *Argyresthia alternatella* Kearf.
Secodella argyresthiae Crawford, 1915. Ent. Soc. Wash. Proc. 17: 100. ♂ ♀.
Biology: Furniss, 1942. Jour. Econ. Ent. 35: 858.

crawfordi Peck, n. name. No. Amer.
Secodella viridis Crawford, 1915. Ent. Soc. Wash. Proc. 17: 144. ♂ ♀. Preocc. by Girault, 1913.

cushmani (Crawford), n. comb. Pa., Wis., Calif. Hosts: *Polychrosis viteana* (Clem.); *Anarsia lineatella* Zell.; *Argyresthia thuiella* (Pack.); *Coleophora pruniella* Clem.
Secodella cushmani Crawford, 1915. Ent. Soc. Wash. Proc. 17: 142. ♂ ♀.
Biology: Keifer and Jones, 1933. Calif. Dept. Agr. Monthly Bul. 22: 388.

elongatus Ashmead. Maine, N. H., Conn., Fla. Hosts: *Attelabus rhois* Boh.
Euderus elongatus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 201. ♀.
Biology: Frost, 1908. Psyche 15: 29.

herillus (Walker). Fla. Host: *Desmia funeralis* (Hbn.).
Entedon (Euderus) Herillus Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 23. ♀.

lividus (Ashmead), n. comb. N. H., N. J., D. C., Va., Fla., Ill., Calif. Hosts: *Ceutorhynchus rapae* Gyll.; *Anarsia lineatella* Zell.; *Monoptilota pergratialis* (Hulst).
Oxyomorpha (!) *livida* Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 135. ♀.
Biology: Duruz, 1923. Calif. Agr. Expt. Sta. Bul. 355: 436–437.—Lamiman, 1937. Calif. Agr. Expt. Sta. Ext. Cir. 103: 75.

marylandicus Girault, emend. Md.
Euderus marilandicus Girault, 1917. Chalcidoidea Nova Marilandensis II, p. 1. ♀.

multilineatus (Girault), n. comb. U. S.
Secodes multilineatus Girault, 1917. Brooklyn Ent. Soc. Bul. 12: 85. ♀.

rugosus rubriscapus (Girault), n. comb. Md.
Secodella rugosus var. *rubriscapus* Girault, 1916. Soc. Ent. 31: 36. ♀.

rugosus rugosus (Crawford), n. comb. N. Y.
Secodella rugosus Crawford, 1915. Ent. Soc. Wash. Proc. 17: 143. ♀.

subopacus (Gahan). Ont., Va., Ohio, La., Calif. Hosts: *Cylindrocopturus eatoni* Buch.; *Grapholitha molesta* Busck; *Rhyacionia buoliana* (Schiff.); *R. frustrana* (Comst.).
Secodella subopaca Gahan, 1917. Jour. Agr. Res. 34: 548. ♂ ♀.
Biology: Cushman, 1927. Jour. Agr. Res. 34: 617.

Genus CHRYSOCHARIS Foerster

Chrysocharis Foerster, 1856. Hym. Stud., v. 2, pp. 79, 82.
Type: ***Chrysocharis femoralis*** Foerster. Desig. by Ashmead, 1904.
Omphalchrysocharis Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 3.
Type: ***Omphalchrysocharis orientalis*** Girault. Orig. desig.

Species of this genus attack lepidopterous and dipterous leaf miners.

ainsliei Crawford. Conn., Wis., Utah, Ariz., Calif., Idaho, Wash. Hosts: *Coleophora pruniella* Clem.; *Agromyza parvicornis* Loew; *A. pusilla* Meig.; *A. scutellata* Fall.
Chrysocharis ainsliei Crawford, 1912. U. S. Natl. Mus. Proc. 43: 174. ♂ ♀.
Biology: Webster and Parks, 1913. Jour. Agr. Res. 1: 79–80.

compressicornis Ashmead. Ohio. Host: ?Galls of *Aulax flavicornis* Ashm. [*nom. nud.*] on *Lactuca.*
Chrysocharis compressicornis Ashmead, 1894. Cincinnati Soc. Nat. Hist. Jour. 17: 53. ♀.

gemma (Walker). B. C. Host: *Phytomyza ilicis* (Curt.).
Entedon gemma Walker, 1839. Monog. Chalciditum, v. 1, p. 53. ♂.
Biology: Cameron, 1939. Bul. Ent. Res. 30: 178–186.—Downes and Andison, 1940. Jour. Econ. Ent. 33: 948.

laricinellae (Ratzeburg). Maine, Vt., N. H., Mass., N. Y. Hosts: *Coleophora laricella* (Hbn.); *Fenusa pusilla* (Klug); *F. ulmi* Sund.; *Heterarthrus nemoratus* Fall.
Entedon laricinellae Ratzeburg, 1848. Ichn. d. Forstins., v. 2, p. 161. ♂.
Biology: Thorpe, 1933. Bul. Ent. Res. 24: 277–280.—Dowden, 1941. U. S. Dept. Agr. Tech. Bul. 757: 9–11, 44–49.—Graham, 1949. Ent. Soc. Ontario Ann. Rpt. 79: 45–50.
Taxonomy: Ferrière, 1933. *In* Thorpe, Bul. Ent. Res. 24: 290.

livida Ashmead. N. Y., Fla., Ill., Mich. Hosts: *Lecanium corni* Bouché; *Oberea ulmicola* Chitt.
Chrysocharis lividus Ashmead, 1894. Linn. Soc. London, Jour., Zool. 25: 175. ♂ ♀.
Taxonomy: Forbes, 1908. Ill. State Ent. Rpt. 24: 128–129.

mallochi Gahan. Conn., Ill. Host: *Agromyza felti* Mall.
Chrysocharus (!) ***mallochi*** Gahan, 1917. U. S. Natl. Mus. Proc. 53: 213. ♂ ♀.

orientalis (Girault), n. comb. N. H.
Omphalchrysocharis orientalis Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 3. ♀.

oscinidis Ashmead. Kans. Host: Dipterous mines in cottonwood leaves.
Chrysocharis oscinidis Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VIII. ♂.
Taxonomy: Girault, 1916. U. S. Natl. Mus. Proc. 51: 42.

pallipes (Gahan). Conn., Md., Ohio. Hosts: *Rhynchaenus pallicornis* (Say); *Phytophaga destructor* (Say); *Phytomyza aquilegiae* Hardy; *Fenusa pusilla* (Klug).
Derostenus pallipes Gahan, 1917. U. S. Natl. Mus. Proc. 53: 214. ♀.
Taxonomy: Gahan, 1932. Ent. Soc. Amer. Ann. 25: 748.

parksi Crawford. N. Y., Utah., Ariz., Calif., Idaho. Hosts: *Agromyza parvicornis* Loew; *A. pusilla* Meig.; *A. texana* Mel.; *Cerodonta femoralis* Meig.; *Phytomyza aquilegiae* Hardy; *P. chrysanthemi* (Kowarz); *P. obscurella* Fall.
Chrysocharis parksi Crawford, 1912. U. S. Natl. Mus. Proc. 43: 173. ♂ ♀.
Biology: Webster and Parks, 1913. Jour. Agr. Res. 1: 79–80.

petiolata (Girault), n. comb. D. C. Host: Chloropid on daisy.
Omphalchrysocharis petiolatus Girault, 1918. Ent. News 29: 131. ♂ ♀.

thomsoni (Crawford), n. comb. Ind. Host: *Agromyza angulata* Loew.
Entedon thomsoni Crawford, 1913. U. S. Natl. Mus. Proc. 45: 316. ♂ ♀.

viridis Provancher. Ont.
Chrysocharis viridis Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 209. ♀.

Genus ACHRYSOCHAROIDES Girault

Achrysocharoides Girault, 1913. Roy. Soc. So. Australia Trans. 37: 72.
Type: *Chrysocharis sarcophagus* Girault. Monob.
Neoderostenus Girault, 1913. Queensland Mus. Mem. 2: 144. N. syn.
Type: *Neoderostenus australiensis* Girault. Monob.

bipunctatus (Girault), n. comb. Maine, Md. Host: *Lithocolletis tremuloidiella* Braun.
Neoderostenus bipunctatus Girault, 1916. Canad. Ent. 48: 409. ♀.

guizoti Girault. Ind.
Achrysocharoides guizoti Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 11. ♀.

titiani Girault. Ind.
Achrysocharoides titiani Girault, 1916. U. S. Natl. Mus. Proc. 51: 42. ♀.

Genus RHICNOPELTOMYIA Girault

Rhicnopeltomyia Girault, 1913. Queensland Mus. Mem. 2: 174.
Type: *Rhicnopeltomyia washingtoni* Girault. Orig. desig.

achrysocharoides Girault. D. C.
Rhicnopeltomyia achrysocharoides Girault, 1916. U. S. Natl. Mus. Proc. 51: 39. ♀.

belisarii Girault. East. U. S.
Rhicnopeltomyia belisarii Girault, 1917. New Chalcid Flies, p. 4.

carlylei carlylei Girault. Md.
Rhicnopeltomyia carlylei Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 6. ♀.

carlylei poeta Girault. Md.
Rhicnopeltomyia carlylei var. *poeta* Girault, 1920. U. S. Natl. Mus. Proc. 58: 197. ♀.

marylandensis Girault. Md.
Rhicnopeltomyia marylandensis Girault, 1916. U. S. Natl. Mus. Proc. 51: 39. ♀.

marylandi Girault. Md.
Rhicnopeltomyia marylandi Girault, 1917. New Chalcid Flies, pp. 4, 5.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 196. ♀.

scutellata Girault. D. C.
Rhicnopeltomyia scutellata Girault, 1916. U. S. Natl. Mus. Proc. 51: 40. ♀.

viridiscutellum Girault. D. C.
Rhicnopeltomyia viridiscutellum Girault, 1916. U. S. Natl. Mus. Proc. 51: 40. ♀.

Genus RHICNOPELTOIDEA Girault

Rhicnopeltoidea Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 3.
Type: *Rhicnopeltoidea amsterdamensis* Girault. Monob.

amsterdamensis Girault. Maine, N. Y., Ind. Hosts: *Cameraria corylisella* (Chamb.); *C. guttifinitella* (Clem.); *C. picturatella* Braun.
Rhicnopeltoidea amsterdamensis Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 3. ♀.

Genus CARLYLEIA Girault

Carlyleia Girault, 1917. Ent. News 28: 20.
Type: *Carlyleia marylandica* Girault. Monob.

marylandica Girault, emend. Md.
Carlyleia marilandica Girault, 1917. Ent. News 28: 20. ♀.

Genus CHRYSOCHAROMYIA Girault

Chrysocharomyia Girault, 1915. Queensland Mus. Mem. 3: 207.
Type: *Chrysocharomyia elongata* Girault. Orig. desig.

eleganta Girault. Md.
Chrysocharomyia eleganta Girault, 1917. Ent. News 28: 21. ♀.

elegantissima Girault. N. Y. Host: *Phytomyza obscurella* Fall.
Chrysocharomyia elegantissima Girault, 1917. Descr. Stellarum Nov., p. 20. ♀.

occidentalis Girault. Calif.
Chrysocharomyia occidentalis Girault, 1916. U. S. Natl. Mus. Proc. 51: 41. ♀.

omari Girault. Pa.
Chrysocharomyia omari Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 9. ♀.

splendidissima Girault. Pa.
Chrysocharomyia splendidissima Girault, 1917. Descr. Stellarum Nov., p. 20. ♀.

Genus PARACHRYSOCHARIS Girault

Parachrysocharis Girault, 1913. Queensland Mus. Mem. 2: 177.
Type: *Parachrysocharis javensis* Girault. Monob.

semiflava Girault. Tex.
Parachrysocharis semiflava Girault, 1917. Canad. Ent. 49: 129. ♂ ♀.

Genus ACHRYSOCHARIS Girault

Achrysocharis Girault, 1913. Arch. f. Naturgesch. 79A (6): 104.
Type: *Achrysocharis bifasciatus* Girault. Monob.

aemilia Girault. Fla. Host: Itonidid on *Eugenia buxifolia*.
Achrysocharis aemilia Girault, 1917. New Chalcid Flies, p. 3. ♀.

athanasii Girault. Md.
Achrysocharis athanasii Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 3. ♀.

divina Girault. Md.
Achrysocharis divina Girault, 1917. Ent. News 27: 22. ♀.

donna Girault. N. Y. Host: *Taphrocerus gracilis* (Say).
Achrysocharis donna Girault, 1917. Descr. Stellarum Nov., p. 22. ♀.

kansensis Girault. Minn., Kans. Host: *Sofus pilicornis* (Holmg.).
Achysocharis (!) *kansensis* Girault, 1916. U. S. Natl. Mus. Proc. 51: 42. ♀.

partifuscipennis Girault. Md.
Achrysocharis partifuscipennis Girault, 1916. Ent. Soc. Amer. Ann. 9: 294. ♀.

Genus ACHRYSOCHARELLA Girault

Achrysocharella Girault, 1913. Queensland Mus. Mem. 2: 171.
Type: *Achrysocharella dubia* Girault, Orig. desig.
Wolfiella Krausse, 1917. Ztschr. f. Forst u. Jagdw. 49: 29.
Type: *Wolfiella ruforum* Krausse. Monob.

acuminaticornis Girault. D. C.
Achrysocharella acuminaticornis Girault, 1916. U. S. Natl. Mus. Proc. 51: 50. ♀.

acuminativentris Girault. D. C.
Achrysocharella acuminativentris Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 6. ♀.

americana Girault. D. C.
Achrysocharella americana Girault, 1916. Ent. Soc. Amer. Ann. 9: 295.

obscurinotata Girault. Md.
Achrysocharella obscurinotata Girault, 1916. Ent. Soc. Amer. Ann. 9: 306. ♀.

partiaeneiceps Girault. Md.
Achrysocharella partiaeneiceps Girault, 1917. New Eulophidae, p. 1. ♀.

pulchrella Girault. D. C.
Achrysocharella pulchrella Girault, 1917. Psyche 24: 94. ♀.

Genus DEROSTENUS Westwood

Derostenus Westwood, 1833. Mag. Nat. Hist. 6: 495.
Type: *Derostenus gemmeus* Westwood. Monob.
Revision: Crawford, 1912. U. S. Natl. Mus. Proc. 43: 179.

agromyzae Crawford. Ind. Hosts: *Agromyza angulata* Loew; *A. pusilla* Meig.; *A. scutellata* Fall.
Derostenus agromyzae Crawford, 1913. U. S. Natl. Mus. Proc. 45: 314, 315. ♂ ♀.

arizonensis Crawford. Utah, Ariz., Calif.
Derostenus arizonensis Crawford, 1913. U. S. Natl. Mus. Proc. 45: 315. ♂ ♀.
Biology: Webster and Parks, 1913. Jour. Agr. Res. 1: 80.

diastatae (Howard). Conn. to Fla. and Kans. Hosts: *Agromyza angulata* Loew; *A. parvicornis* Loew; *A. pusilla* Meig.; *A. scutellata* Fall.; *Diastata* sp. mining corn ears; dipterous leaf miner of *Panicum dichstomiflorum*; *Fenusa pusilla* (Klug).
Entedon diastatae Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 246. ♂ ♀.
Biology: Phillips, 1914. Jour. Agr. Res. 2: 26–27.

fullawayi Crawford. Conn., Va., La., S. Dak. Hosts: *Argyresthia thuiella* (Pack.); *Agromyza parvicornis* Loew; *A. pusilla* Meig.; *Fenusa pusilla* (Klug).
Derostenus fullowayi (!) Crawford, 1913. U. S. Natl. Mus. Proc. 46: 348. ♀.
Achrysocharis camilli Girault, 1917. New Chalcid Flies, p. 5. N. syn.
Derostenus fullawayi Glick, 1939. U.S. Dept. Agr Tech. Bul. 673: 47. Emend.
Biology: Underhill, 1943. Va. Agr. Expt. Sta. Bul. 349: 22.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 196.

leucopus Ashmead. Ohio, Kans. Host: Beech leaf miner.
Derostenus leucopus Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VIII. ♀.

pictipes Crawford. Md., S. C., Ind., Kans., Colo., Utah. Hosts: *Agromyza coquillettii* Mall.; *A. pusilla* Meig.; *A. scutellata* Fall.; *Phytomyza aquilegiae* Hardy; *Hordeum* leaf miner.
Derostenus pictipes Crawford, 1912. U. S. Natl. Mus. Proc. 43: 180. ♂ ♀.

punctiventris Crawford. Ind., Wyo., Utah. Hosts: *Agromyza parvicornis* Loew; *A. pusilla* Meig.; *A. scutellata* Fall.
Derostenus punctiventris Crawford, 1912. U. S. Natl. Mus. Proc. 43: 180. ♀.
Biology: Phillips, 1914. Jour. Agr. Res. 2: 28.

silvia (Girault), n. comb. Md.
Achrysocharella silvia Girault, 1917. Two New Achrysocharellae, p. 1. ♀.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 197.

variipes Crawford. Md., Ind. Hosts: *Agromyza pusilla* Meig.; *Phytomyza aquilegiae* Hardy: leaf roller of *Rubus alleghenensis*.
Derostenus variipes Crawford, 1913. U. S. Natl. Mus. Proc. 45: 315. ♀.
Taxonomy: Gahan, 1914. U. S. Natl. Mus. Proc. 48: 164.

Genus LOPHOCOMUS Haliday

Lophocomus Haliday, 1844 (1843). Ent. Soc. London Trans. 3: 297.
Type: *Cirrospilus anaitis* Walker. Monob.

verticillatus Ashmead. Kans.
Lophocomus verticillatus Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VIII. ♂.

Genus HORISMENUS Walker

Horismenus Walker, 1843. Ann. Mag. Nat. Hist. 11: 117.
Type: *Horismenus cleodora* Walker. Monob.
Holcopelte Foerster, 1856. Hym. Stud., v. 2, pp. 78, 81.
Type: *Elachistus obscurus* Foerster. Monob.
Holcopelta Schulz, 1906. Spolia Hym., p. 141. Emend.
Pseudomphale Schrottky, 1909. Soc. Cient. Argentina An. 67: 209.
Type: *Pseudomphale opsiphanis* Schrottky. Monob.

ancylae (Girault), n. comb. Va. Host: *Anchylopera nubeculana* Clem.
Pseudomphale ancylae Girault, 1916. Ent. News 27: 223. ♂ ♀.
Biology: Leach, 1916. U. S. Dept. Agr. Bul. 435: 11.

atroscapus (Girault), n. comb. Fla. Host: ?*Tetralopha subcanalis* (Wlkr.).
Pseudomphale atroscapus Girault, 1917. Descr. Stellarum Nov., p. 20. ♀

depressus Gahan. Calif. Host: *Stator pruininus* (Horn).
Horismenus depressus Gahan, 1930. U. S. Natl. Mus. Proc. 77 (8): 8. ♂ ♀.

euplectri (Howard). Conn., N. J., Fla., Ala. Host: *Euplectrus comstocki* How.
Elachistus euplectri Howard, 1885. *In* Riley, U. S. Dept. Agr. Ent. Comn. Rpt. 4: App. p. 108. ♂ ♀.

flavipes (Ashmead). Fla.
Elachristus (!) *flavipes* Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 133. ♀.

floridanus (Ashmead). Tenn., N. C., Fla. Host: *Apanteles congregatus* (Say).
Holcopelte floridana Ashmead, 1888. Canad. Ent. 20: 102. ♀.

fraternus (Fitch). Wis., N. Y., N. J., Fla., La., Tex., Kans., Iowa. Hosts: *Coleophora pruniella* Clem.; *Callisto geminatella* (Pack.); *Cameraria caryaefoliella* (Clem.); *Tischeria malifoliella* Clem.
Trichogramma? fraterna Fitch, 1856. Country Gentleman 7: 235.
Taxonomy: Packard, 1890. U. S. Dept. Agr. Ent. Comn. Rpt. 5: 265.

haemon (Walker). Fla., Kans.
Tetrastichus Haemon Walker, 1847. Ann. Mag. Nat. Hist (1) 20: 28. ♀.

lixivorus Crawford. Maine, Tex. Hosts: *Lixus musculus* Say; *L. scrobicollis* Boh.; *Phyllocnistis populiella* Chamb.
Horisemus (!) **lixivorus** Crawford, 1907. N. Y. Ent. Soc. Jour. 15: 180. ♂ ♀.
Biology: Pierce, 1910. Jour. Econ. Ent. 3: 453.

microgaster (Ashmead). Maine to W. Va. and Ohio; Ga., Ill., Mo., Tex., Kans., Iowa. Hosts: *Apion decoloratum* Smith; *Ceratomia catalpae* Bdvl.; *Celama sorghiella* (Riley); *Pterophorus periscelidactylus* Fitch; *Ancylis comptana fragariae* (W. and R.); *Acleris minuta* (Rob.); *Dichomeris marginella* (F.); *Coleophora malivorella* Riley; *Phyllocnistis populiella* Chamb.; *Apanteles congregatus* (Say); *A. glomeratus* (L.); *A. solitarius* (Ratz.); *Microplitis ceratomiae* Riley; *Microgaster* sp.; *Oncophanes americanus* (Weed); *Chorinaeus* sp.; *Catolaccus aeneoviridis* (Gir).
Holcopelte microgaster Ashmead, 1888. Canad. Ent. 20: 102. ♂.
Pediobioidea cyanea Girault, 1911. Canad. Ent. 43: 407.
Biology: Proper, 1934. Jour. Agr. Res. 48: 365.
Taxonomy: Girault, 1911. Canad. Ent. 43: 407, 409–411.

missouriensis (Ashmead). N. C., Ga., Mo. Host: *Amblycerus robiniae* (F.).
Holcopelte missouriensis Ashmead, 1888. Canad. Ent. 20: 101. ♀.

nitens (Howard), n. comb. D. C. Host: Egg bag of *Epeira* sp.
Holcopelte nitens Howard, 1892. Ent. Soc. Wash. Proc. 2: 298. ♂ ♀.

popenoei (Ashmead). D. C., Mo., Kans. Hosts. *Tischeria malifoliella* Clem. *Heterospilus* sp.
Holcopelte Popenoei Ashmead, 1888. Canad. Ent. 20: 101. ♀.

productus (Ashmead). N. Mex. Host: *Mimosestes amicus* (Horn).
Holcopelte producta Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 342. ♂ ♀.

sardus (Walker). No. Amer.
Entedon (Horismenus) Sardus Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 23. ♀.

texanus (Girault). Conn., Md., Va., Ala., Mo., Iowa, Kans., Tex., N. Mex., Ariz. Hosts: *Phytophaga destructor* (Say); *Eumetopiella rufipes* Macq.; *Meromyza americana* (Fitch).
Pseudomphale texana Girault, 1917 (1916). Insecutor Inscitiae Menstruus 4: 120. ♀.
Biology: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 128–131.

violaceus (Ashmead). Ind., Fla., Tex., Kans. Hosts: *Callisto geminatella* (Pack.); *Cameraria caryaefoliella* (Clem.); *Tischeria malifoliella* Clem.; tineid larva in woolly galls of *Andricus flocci* Walsh.
Holcopelte violacea Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 200. ♀.

Genus PLEUROTROPIS Foerster

Pleurotropis Foerster, 1856. Hym. Stud., v. 2, pp. 78, 82 (no species).
Type: *Pleurotropis isomera* Foerster. Included by Foerster, 1861.
Pseudacrias Girault, 1913. Arch. f. Naturgesch. 79A (6): 104.
Type: *Pseudacrias micans* Girault. Monob.
Pseudacriasoides Girault, 1917. Descr. Stellarum Nov., p. 9.
Type: *Pleurotropis utahensis* Crawford. Monob.
Epipleurotropis Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 7.
Type: *Epipleurotropis longfellowi* Girault. Monob.
Revision: Crawford, 1912. U. S. Natl. Mus. Proc. 43: 177-179.

albipes (Provancher), n. comb. Ont.
Holcopelte albipes Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 210. ♂.

albitarsis (Ashmead). N. H., Mass., N. J., Va. Hosts: *Apanteles congregatus* (Say); ?*Alegina annulata* Ashm.; ?*Gelis tenellus* (Say); *Eupteromalus nidulans* (Thoms.).
Entedon albitarsis Ashmead, 1888. Canad. Ent. 20: 102, 103. ♂ ♀.
Taxonomy: Girault, 1924. Insecutor Inscitiae Menstruus 12: 94.

benefica Gahan. Ont., N. Y., Pa., Md., W. Va., Va., west. Canada. Hosts: *Phytophaga destructor* (Say); *Cephus cinctus* Nort.; *C. pygmaeus* (L.); *C. tabidus* (F.).
Pleurotropis benefica Gahan, 1921. Ent. Soc. Wash. Proc. 23: 117. ♂ ♀.
Biology: Salt, 1931. Bul. Ent. Res. 22: 482, 534–541.—Udine, 1941. U. S. Dept. Agr. Cir. 607: 7.
Taxonomy: Gahan, 1932. Ent. Soc. Amer. Ann. 25: 751.—Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 131.

bucculatricis Gahan. Que., Maine, Conn. Hosts: *Phyllocnistis populiella* Chamb.; *Bucculatrix canadensisella* Chamb.
Pleurotropis bucculatricis Gahan, 1927. Psyche 34: 171. ♂ ♀.

kansensis Girault. Kans.
Pleurotropis kansensis Girault, 1918. Ent. News 29: 128. ♀.

lithocolletidis (Ashmead). Maine, Conn., Va., N. C., Ind., Ill., Kans. Hosts: Probably *Anthonomus nigrinus* Boh.; *Argyresthia thuiella* (Pack.); *Cameraria guttifinitella* (Clem.); *Lithocolletis* larva on *Helianthus grosse-serratus; Agromyza platyptera* Thos.; *Phytomyza ilicis* (Curt.).
Entedon lithocolletidis Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VIII. ♂ ♀.

longa Girault. Ind. Host: ?*Harmolita* sp.
Pleurotropis longus Girault, 1916. Canad. Ent. 48: 342. ♀.

longfellowi (Girault). Maine, Pa. Host: *Cameraria aceriella* (Clem.).
Epipleurotropis longfellowi Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 7. ♀.

metallica (Nees). P. E. I., N. Y. to Va., Ill. and Mich., Oreg., Wash. Hosts: *Phytophaga destructor* (Say); *Oscinella* sp.

Eulophus metallicus Nees, 1834. Hym. Ichn. Aff. Monog., v. 2, p. 176. ♂ ♀.
Entedon Epigonus Walker, 1839. Monog. Chalciditum, v. 1, p. 112. ♂ ♀.
Semiotellus (?) ***nigripes*** Lindeman, 1887. Soc. Imp. Nat. Moscou Bul. (2) 1: 179, 185, 192. ♂ ♀.
Biology: Hill, Pinckney and Udine, 1939. U. S. Dept. Agr. Tech. Bul. 689: 4–6, 10–15.
Taxonomy: Riley, 1893. U. S. Dept. Agr. Insect Life 6: 133.—Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 132–138.—Hill and Pinckney, 1940. U. S. Dept. Agr. Tech. Bul. 715: 9, 11–13.

nawai (Ashmead). New England. Hosts: *Grapholitha molesta* (Busck); *Apanteles melanoscelus* (Ratz.); *A. solitarius* (Ratz.); *Dibrachys cavus* (Wlkr.); *Eupteromalus nidulans* (Thom.).
Derostenus nawai Ashmead, 1904. N. Y. Ent. Soc. Jour. 12: 160. ♂ ♀.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 12, 31–32.—Proper, 1934. Jour. Agr. Res. 48: 362–375.—Haeussler, 1940. U. S. Dept. Agr. Tech. Bul. 728: 33.

nigra (Ashmead). Ill., Fla.
Closterocerus niger Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 232. ♂.

perdubia (Girault). Utah.
Amestocharis perdubius Girault, 1917. Descr. Stellarum Nov., p. 8. ♀.

phyllotretae Riley. Mo. Host: *Phyllotreta zimmermanni* (Crotch).
Pleurotropis phyllotretae Riley, 1885. U. S. Dept. Agr. Ann. Rpt. for 1884, p. 307. ♂ ♀.

quercicola (Ashmead). Que., Ill., Kans. Hosts: Tineid larvae in oak apple gall; gall of *Amphibolips inanis* O. S.; *A. spongifica* (O. S.).
Asecodes quericola Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VIII. ♂ ♀.

rugosithorax Crawford. Ind., Utah. Hosts: *Agromyza angulata* Loew; *A. pusilla* Meig.; *A. scutellata* Fall.; *A.* sp. in alfalfa.
Pleurotropis rugosithorax Crawford, 1912. U. S. Natl. Mus. Proc. 43: 179. ♂ ♀.
Biology: Webster and Parks, 1913. Jour. Agr. Res. 1: 82, 84.

sexdentata (Girault). Mass., N. J., Ohio, N. C., Kans. Hosts: *Trichoplusia ni* (Hbn.); *Ancylis comptana* (Froel.); *A. comptana fragariae* (W. and R.); ?*Gnorimoschema gallaesolidaginis* (Riley); *G. salinaris* Busck.
Pseudacrias sexdentatus Girault, 1916. Soc. Ent. 31: 36. ♀.
Biology: Patterson, 1915. Biol. Bul. 29: 340–341.

singularis (Howard), n. comb. D. C. Host: *Cameraria hamadryadella* (Clem.).
Chrysocharis singularis Howard, 1891. U. S. Dept. Agr. Insect Life 4: 194.
Biology: Howard, 1882. Amer. Nat. 16: 61.

splendens (Cook and Davis.) Mich. Hosts: *Heterocampa manteo* (Dbldy.); *Symmerista albifrons* (A. and S.).
Derostenus splendens Cook and Davis, 1891. Mich. Agr. Expt. Sta. Bul. 73: 13. ♂ ♀.

tarsalis (Ashmead). N. H. to N. C.; Ill., La., Kans., Calif., Oreg., Wash. Hosts: *Magdalis aenescens* Lec.; *Plagiodera versicolora* (Laich.); [?]*Pseudogaurax anchora* (Loew); *Sphinx* sp.; *Hemerocampa vetusta* (Bdvl.); *Apanteles lacteicolor* Vier.; *A. melanoscelus* (Ratz.); *Gelis tenellus* (Say); *Dimmockia incongrua* (Ashm.); *D. pallipes* Mues.; *Eupelmella vesicularis* (Retz.); *Eupelmus spongipartus* Foerst.; *Cheiropachus colon* (L.); *Dibrachys cavus* (Wlkr.); *Dinotiscus* sp.; *Eupteromalus nidulans* (Thoms.); *Habrocytus phycidis* Ashm.; *Schizonotus sieboldi* (Ratz.); *Eurytoma appendigaster* (Swed.); smoke tree leaf roller.
Holcopelte tarsalis Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 341. ♂ ♀.
Asecodes albitarsis Ashmead, 1888. Canad. Ent. 20: 103. ♀. Preocc.
Pleurotropis ashmeadi Crawford, 1912. U. S. Natl. Mus. Proc. 43: 177. N. name.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 12, 31.—Proper 1934. Jour. Agr. Res. 48: 361–370.—Marsh, 1937. Ecology 18: 108–111.—Dowden, 1939. Jour. Agr. Res. 58: 591.
Taxonomy: Gahan, 1927. U. S. Natl. Mus. Proc. 71 (4): 26.

testaceipes Crawford. S. C.
Pleurotropis testaceipes Crawford, 1914. Insecutor Inscitiae Menstruus 2: 37. ♀.

utahensis Crawford. Man., Mont., N. Dak., Utah. Hosts: *Agromyza parvicornis* Loew; *Cephus cinctus* Nort.
Pleurotropis utahensis Crawford, 1913. U. S. Natl. Mus. Proc. 45: 316. ♂ ♀.
Biology: Ainslie, 1929. U. S. Dept. Agr. Tech. Bul. 157: 19–20.—Neilson, 1949. Canad. Ent. 81: 174–180.
Taxonomy: Phillips, 1914. Jour. Agr. Res. 2: 28.—Gahan, 1921. Ent. Soc. Wash. Proc. 23: 113–117.

wilderi (Howard). Que., N. Y., D. C., S. C., Calif. Hosts: ?*Coccygomimus aquilonia* (Cress.); *Tromatobia rufopectus* (Cress.); *Aranea solitaria* (Emert.); *Argiope aurantia* (Lucas).
Mestocharis wilderi Howard, 1892. Ent. Soc. Wash. Proc. 2: 298. ♂ ♀.

williamsoni (Girault), n. comb. Ill. Host: *Physocephala sagittaria* (Say).
Mestocharis williamsoni Girault, 1911. N. Y. Ent. Soc. Jour. 19: 179. ♂ ♀.

Genus ENTEDON Dalman

Entedon Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 136, 181.
Type: *Entedon cyanellus* Dalman. Desig. by Ashmead, 1904.
Eriglyptus Crawford, 1907. N. Y. Ent. Soc. Jour. 15: 179.
Type: *Eriglyptus robustus* Crawford. Monob.
Entedonella Girault, 1913. Queensland Mus. Mem. 2: 154.
Type: *Entedonella magnifica* Girault. Monob.
Revision: Girault, 1922. No. Amer. Spp. of *Emersonella* and *Entedon*, one page.

aphidiphagus Ashmead. Fla. Host: *Macrosiphum solanifolii* (Ashm.).
Entedon aphidiphagus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 201. ♀.

bigeloviae Ashmead. Kans., N. Mex., Ariz., Utah, Oreg. Host: *Aciurina bigeloviae* (Ckll.).
Entedon bigeloviae Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 342. ♀.

columbianus Ashmead. D. C.
Entedon columbiana Ashmead, 1888. Canad. Ent. 20: 103. ♀.

damastes (Walker). Fla.
Closterocerus Damastes Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 22. ♀.

leucogramma (Ratzeburg). N. Y., N. C. Hosts: *Scolytus multistriatus* (Marsh.); *S. rugulosus* (Ratz.).
Ichneumon (*Elachestus*) *Leucogramma* Ratzeburg, 1884. Forst.-Ins. d. Wald. Preuss., v. 3, p. 28. ♂.

leucopus (Ashmead), n. comb. Fla.
Pleurotropis leucopus Ashmead, 1888. Canad. Ent. 20: 102. ♀.

occidentalis Girault. Utah, Calif., Oreg.
Entedon occidentalis Girault, 1916. U. S. Natl. Mus. Proc. 51: 48. ♀.

robustus (Crawford). D. C. Host: *Anthonomus nigrinus* Boh.
Eriglyptus robustus Crawford, 1907. N. Y. Ent. Soc. Jour. 15: 180. ♂ ♀.

tachypterelli Gahan. N. Y., Colo. Hosts: *Tachypterellus consors cerasi* List; *T. quadrigibbus* (Say).
Entedon tachypterelli Gahan, 1931. Wash. Acad. Sci. Proc. 21: 38. ♂ ♀.
Biology: List, 1932. Colo. Agr. Expt. Sta. Bul. 385: 59, 61–62.—Hammar, 1936. N. Y. State Agr. Expt. Sta. Tech. Bul. 240: 44–45.

washingtoni Girault. D. C.
Entedon washingtoni Girault, 1917 (1916). Insecutor Inscitiae Menstruus 4: 109. ♀.

Genus PARACRIAS Ashmead

Paracrias Ashmead, 1904. Carnegie Mus. Mem. 1: 343, 344, 510.
Type: *Paracrias laticeps* Ashmead. Monob.
Euplectrentedon Girault, 1917. Speciosissima Genera Nova Eulophidorum, p. 3. N. syn.
Type: *Euplectrentedon mirus* Girault. Monob.

mirus (Girault), n. comb. Iowa.
Euplectrentedon mirus Girault, 1917. Speciosissima Genera Nova Eulophidorum, p. 3. ♀.

Genus EMERSONOPSIS Girault

Emersonopsis Girault, 1917. Canad. Ent. 49: 110.
Type: ***Entedon arizonensis*** Ashmead. Monob.
Revision: Girault, 1924. Insecutor Inscitiae Menstruus 12: 93.

arizonensis (Ashmead). Ariz.
Entedon arizonensis Ashmead, 1888. Canad. Ent. 20: 103. ♀.

cupreicollis (Ashmead). Kans.
Entedon cupreicollis Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VIII. ♂ ♀.

Genus ACRIAS Walker

Acrias Walker, 1847. Ann. Mag. Nat. Hist. 20: 29.
Type: ***Acrias nileus*** Walker. Monob.

nileus Walker. Fla.
Acrias Nileus Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 29. ♀.

Genus NESOMYIA Ashmead

Nesomyia Ashmead, 1904. Carnegie Mus. Mem. 1: 344.
Type: ***Nesomyia albipes*** Ashmead. Monob.

cimbicis Brues. Wis. Host: *Cimbex americana* Leach.
Nesomyia cimbicis Brues, 1909 (1908). Wis. Nat. Hist. Soc. Bul. 6: 162. ♀.
Biology: Girault, 1912. Ent. News 23: 81–82.

Family ELASMIDAE

Revision: Girault, 1918. No. Amer. Hym. Elasmidae, pp. 1–4.

Genus ELASMUS Westwood

Elasmus Westwood, 1833. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 3: 343.
Type: ***Eulophus flabellatus*** Fonscolombe. Monob.
Aneure Nees, 1834. Hym. Ichn. Aff. Monog., v. 2, p. 194.
Type: ***Aneure nuda*** Nees. Desig. by Gahan and Fagan, 1923.
Cyclopleura Cameron, 1913 (1912). Indian Forest Rec. 4: 96.
Type: ***Cyclopleura fumipennis*** Cameron. Desig. by Gahan and Fagan, 1923.

albicoxa Howard. N. J., Ind., Mo., Kans. Hosts: ?*Basilarchia archippus* (Cram.); *Callisto geminatella* (Pack.); ?*Microgaster* sp.
Elasmus albicoxa Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 30. ♂.
Biology: Howard, 1892. U. S. Dept. Agr. Insect Life 4: 253.

apanteli Gahan. Ind., Tenn., Tex. Hosts: *Apanteles marginiventris* (Cress.); *Meteorus laphygmae* Vier.
Elasmus apanteli Gahan, 1913. U. S. Natl. Mus. Proc. 46: 438. ♀.

aspidiscae Girault. D. C. Host: *Coptodisca splendoriferella* (Clem.).
Elasmus aspidiscae Girault, 1917 (1916). Insecutor Inscitiae Menstruus 4: 117. ♀.

atratus Howard. Conn., D. C., Ohio. Hosts: *Apanteles delicatus* How.; *A. hyphantriae* Riley; *A. melanoscelus* (Ratz.); *A. solitarius* (Ratz.); *A.* sp.; *Meteorus hyphantriae* Riley; *Campoplex validus* (Cress.); *Phobocampe pallipes* (Prov.).
Elasmus atratus Howard, 1897. U. S. Dept. Agr. Div. Ent. Tech. Ser. 5: 40, 56. ♂ ♀.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 29.—Balduf, 1929. Ohio Jour. Sci. 29: 237.—Proper, 1934. Jour. Agr. Res. 48: 365.
Morphology: Snodgrass, 1910. U. S. Natl. Mus. Proc. 39: 65.

borrowi Girault. D. C.
Elasmus borrowi Girault, 1917 (1916). Insecutor Inscitiae Menstruus 4: 117. ♀.

floridensis Girault. Fla.
Elasmus floridensis Girault, 1917. Soc. Ent. 31: 42. ♀.

marylandicus Girault. Conn., Md. Host: Larva ex stem of *Ambrosia artemisiaefolia.*
Elasmus marylandicus Girault, 1915. Ent. Soc. Amer. Ann. 8: 281. ♀.

meteori Ashmead. Ill. Hosts: *Apanteles canarsiae* Ashm.; *Meteorus vulgaris* (Cress.).
Elasmus meteori Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 128. ♂ ♀.

missouriensis Girault. Mo.
Elasmus missouriensis Girault, 1917 (1916). Insecutor Inscitiae Menstruus 4: 117. ♀.

mordax Girault. Md., D. C. Host: *Cameraria guttifinitella* (Clem.).
Elasmus mordax Girault, 1917 (1916). Insecutor Inscitiae Menstruus 4: 114. ♀.

nigripes Howard. N. J., Mo. Host: *Porphyrosela desmodiella* (Clem.).
Elasmus nigripes Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 30. ♂.
Biology: Howard, 1892. U. S. Dept. Agr. Insect Life 4: 253.

pulex Girault. Md.
Elasmus pulex Girault, 1916. Soc. Ent. 31: 43. ♀
Elasmus daedalus Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 8. ♀. N. syn.

pullatus Howard. Ohio, Mo., Kans. Hosts: ? *Hyphantria cunea* (Drury); ?*Tischeria malifoliella* Clem.
Elasmus pullatus Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 30. ♂.
Biology: Howard, 1892. U. S. Dept. Agr. Insect Life 4: 253.

setosiscutellum Crawford. Va., La., Tex., Wis., Nebr., Kans., Calif. Hosts: *Rhyacionia frustrana* (Comst.); *Anarsia lineatella* Zell.; *Coleophora malivorella* Riley; *C. pruniella* Clem.; tephritid seed maggot from iron weed.
Elasmus setosiscutellatus Crawford, 1910 (1909). Ent. Soc. Wash. Proc. 11: 206. ♂ ♀.

tischeriae Howard. N. J., D. C., Va., Kans. Host: *Tischeria solidaginifoliella* Clem.
Elasmus tischeriae Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 30. ♀.

varius Howard. N. H., Mo. Hosts: Probably *Gracillaria rhoifoliella* Chamb.; *Apanteles hyphantriae* Riley; *Meteorus hyphantriae* Riley; *Rogas stigmator* (Say); *Hyposoter fugitivus* (Say); *Phobocampe clisiocampae* (Weed).
Elasmus varius Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 29. ♂.
Biology: Howard, 1892. U. S. Dept. Agr. Insect Life 4: 253.—Fiske, 1903. N. H. Agr. Expt. Sta. Tech. Bul. 6: 182, 228.

zigzag Girault. Fla.
Elasmus zigzag Girault, 1917. Descr. Stellarum Nov., p. 16. ♀.

Family THYSANIDAE

The Nearctic host records for this family include only Homoptera or chalcid parasites of Homoptera.

Revision: Girault, 1913. U. S. Natl. Mus. Proc. 45: 189–233 (Signiphorinae).

Genus THYSANUS Walker

Thysanus Walker, 1840 (1839). Ann. Nat. Hist. 4: 234.
Type: ***Thysanus ater*** Haliday. Monob.
Triphasius Foerster, 1856. Hym. Stud., v. 2, pp. 83, 84. N. name.
Plastocharis Foerster, 1856. Hym. Stud., v. 2, p. 145. N. name.
Thusanus Walker, 1872. Notes on Chalcid., v. 7, p. 114. Emend.
Signiphora Ashmead, 1880. Orange Insects, p. 29, 30.
Type: ***Signiphora flavopalliatus*** Ashmead. Monob.

Neosigniphora Rust, 1913. Ent. News 24: 164.
Type: ***Neosigniphora nigra*** Rust. Monob.
Matritia Mercet, 1916. Soc. Españ. Hist. Nat. Bol. 16: 523, 525.
Type: ***Signiphora (Matritia) conjugalis*** Mercet. Monob.
Revision: Girault, 1913. U. S. Natl. Mus. Proc. 45: 193–233 (*Signiphora*).

aleyrodis (Ashmead), n. comb. Pa., Calif. Hosts: *Aleuroplatus coronatus* (Quaint.); *Chrysomphalus aonidum* (L.); *C. dictyospermi* (Morg.).
Signiphora aleyrodis Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 409, 412. ♀.

aspidioti (Ashmead). Va.
Signiphora aspidioti Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 412. ♀.

citrifolii (Ashmead), n. comb. Fla. Hosts: *Aleuroplatus coronatus* (Quaint.); *A. gelatinosus* (Ckll.); *Aleyrodes* sp. on *Quercus agrifolia; Macrosiphum solanifolii* (Ashm.).
Signiphora Citrifolii Ashmead, 1880. Orange Insects, p. 66. ♀.

coquilletti (Ashmead). N. Y., Calif. Hosts: *Aspidiotus* sp.; *Diaspis boisduvali* Sign.
Signiphora coquilletti Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 412. ♀.

dactylopii (Ashmead). D. C., N. Mex. Hosts: *Phenacoccus cevaliae* Ckll.; *Pseudococcus ephedrae* (Coq.).
Signiphora dactylopii Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 410. ♀.

elongatus (Girault). Va., S. Dak., Calif. Hosts: *Coccus hesperidum* (L.); *Pseudococcus comstocki* (Kuw.); coccid on *Muehlenbergia; Tetrastichus minutus* (How.); *Acerophagus notativentris* (Gir.); *Achrysophagus modestus* Timb.; *Anagyrus yuccae* (Coq.); *Clausenia purpurea* (Ishii); *Pseudleptomastix squammulata* Gir.; *Zarhopalus corvinus* Gir.
Neosigniphora elongata Girault, 1916. Psyche 23: 41. ♀.
Biology: Clausen, 1924. Calif. Univ. Pubs., Ent. 3: 257–266, 281–284.—Clancy, 1944. Jour. Econ. Ent. 37: 451.
Taxonomy: Timberlake, 1924. Calif. Univ. Pubs., Ent. 3: 246–248.

flavellus (Girault), n. comb. Fla. Host: *Aspidiotus lataniae* Sign.
Signiphora flavella Girault, 1913. U. S. Natl. Mus. Proc. 45: 214. ♀.
Signiphora basilica Girault, 1913. U. S. Natl. Mus. Proc. 45: 215. ♀. N. syn.

flavopalliatus (Ashmead), n. comb. Ga., Fla., La., Calif. Hosts: *Aleyrodes* sp.; *Aonidiella aurantii* (Mask.); *A. citrina* (Coq.); *Aspidiotus camelliae* Sign.; *A. lataniae* Sign.; *Chionaspis* sp. on *Magnolia; Chrysomphalus dictyospermi* (Morg.); *Lepidosaphes beckii* (Newm.); *L. gloverii* (Pack.); *Pseudaonidia duplex* (Ckll.).
Signiphora flavopalliatus Ashmead, 1880. Orange Insects, p. 29. ♀.
Signiphora flavo-palliatus Ashmead, 1880. Orange Insects, p. 31.

louisianae Dozier. La. Host: *Aspidiotus lataniae* Sign.
Thysanus louisianae Dozier, 1933. Ent. Soc. Wash. Proc. 35: 100. ♂.

merceti (Malenotti), n. comb. La. Host: *Chrysomphalus dictyospermi* (Morg.).
Signiphora merceti Malenotti, 1916. Redia 12: 181. ♀.
Biology: Cressman, 1933. Jour. Econ. Ent. 26: 704.
Taxonomy: Malenotti, 1916. Soc. Españ. de Hist. Nat. Bol. 16: 529.

mexicanus (Ashmead), n. comb. Calif. Host: *Aspidiotus hederae* (Vallot).
Signiphora mexicana Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 411. ♀.

niger (Ashmead). N. Y. to Va.; Ill., Calif. Hosts: *Aspidiotus perniciosus* Comst.; *Coccus hesperidum* L.; *Pseudococcus adonidum* (L.); *P. comstocki* (Kuw.); *Saissetia oleae* (Bern.); *Aphycus lounsburyi* How.; *Clausenia purpurea* Ishii; *Leptomastidea abnormis* (Gir.).
Signiphora nigra Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 410. ♀.
Biology: Clancy, 1944. Jour. Econ. Ent. 37: 451.—Compere, 1925. Calif. Univ Pubs., Ent. 3: 296.
Taxonomy: Smith and Compere, 1928. Calif. Univ. Pubs., Ent. 4: 242, 332–334.

nigrellus (Girault), n. comb. Tex. Host: *Chrysomphalus tenebricosus* (Comst.).
Signiphora nigrella Girault, 1913. U. S. Natl. Mus. Proc. 45: 215. ♂.

occidentalis (Howard), n. comb. Calif. Hosts: *Aleyrodes* sp.; *Aonidiella aurantii* (Mask.); *A. citrina* (Coq.); *Aspidiotus juglans-regiae* Comst.; *A. lataniae* Sign.; *Lepidosaphes gloveri* (Pack.).
Signiphora occidentalis Howard, 1894. U. S. Dept. Agr. Insect Life 6: 233. ♂ ♀.

pulcher (Girault). N. J. to Va. and Ill. Hosts: *Aspidiotus perniciosus* Comst.; *A. uvae* Comst.; *A.* sp. on cherry (*?forbesi* Johns.); *A.* sp. on currant; *Aulacaspis rosae* (Bouché); *Chionaspis americana* Johns.; *Lecanium nigrofasciatum* Perg.; *Pseudaulacaspis pentagona* (Targ.).
Signiphora pulchra Girault, 1913. U. S. Natl. Mus. Proc. 45: 215. ♂ ♀.
Signiphora nigrita Girault, 1913. U. S. Natl. Mus. Proc. 45: 215.

thoreauini (Girault), n. comb. Calif. Host: *Aspidiotus hederae* (Vallot).
Signiphora thoreauini Girault, 1916. Psyche 23: 41. ♀.

townsendi (Ashmead). D. C., Tex. Hosts: *Aleyrodes* sp.; *Aspidiotus lataniae* Sign.; *A. perniciosus* Comst.; *Pseudaulacaspis pentagona* (Targ.).
Signiphora townsendi Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 412. ♀.

unifasciatus (Ashmead). Ga., Fla. Host: *Ceropsylla sideroxyli* Riley.
Signiphora unifasciata Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 410. ♀.

Family EUTRICHOSOMATIDAE Peck, New Family

Genus EUTRICHOSOMA Ashmead

Eutrichosoma Ashmead, 1899. Ent. Soc. Wash. Proc. 4: 204 (no species).
Type: ***Eutrichosoma mirabile*** Ashmead. Included by Ashmead, 1904.

albipes Crawford. Tex. Hosts: *Auleutes tenuipes* (Lec.); *Smicronyx tychoides* (Lec.).
Eutrichosoma albipes Crawford, 1908 (1907). Ent. Soc. Wash. Proc. 9: 158. ♂ ♀.
Biology: Pierce, 1910. Jour. Econ. Ent. 3: 453.

mirabile Ashmead. Mont.
Eutrichosoma mirabile Ashmead, 1904. Carnegie Mus. Mem. 1: 291, 375. ♀.
Taxonomy: Gahan and Peck, 1946. Wash. Acad. Sci. Jour. 36: 315.

Family TANAOSTIGMATIDAE Peck, New Family

Genus TANAOSTIGMODES Ashmead

Tanaostigmodes Ashmead, 1896. Ent. Soc. Wash. Proc. 4: 9, 18.
Type: ***Tanaostigmodes howardii*** Ashmead. Orig. desig.
Revision: Crawford, 1911. U. S. Natl. Mus. Proc. 40: 442.

albiclava Girault. Ariz.
Taneostigmodes (!) ***albiclavus*** Girault, 1917. Descr. Stellarum Nov., p. 4. ♀.

howardii Ashmead. Ariz., Calif. Hosts: Galls on *Acacia greggi*, *Mimosa biuncifera*, and *Prosopis* sp.
Tanaostigmodes howardii Ashmead, 1896. Ent. Soc. Wash. Proc. 4: 19. ♀.

slossonae Crawford. Fla.
Tanaostigmodes slossonae Crawford, 1911. U. S. Natl. Mus. Proc. 40:442. ♂ ♀.

tychii Ashmead. Calif. Host: *Tychius semisquamosus* Lec.
Tanaostigmodes tychii Ashmead, 1896. Ent. Soc. Wash. Proc. 4: 19. ♀.

Family ENCYRTIDAE

Revisions: Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 323–412.—Girault, 1915. Queensland Mus. Mem. 4: 120–128, 179–183.—Mercet, 1921. Fauna Ibérica, Himen., Encirtidos, pp. 1–732. —Timberlake, 1923. Ent. Soc. Wash. Proc. 25: 57–60.

Subfamily ENCYRTINAE

Genus TINEOPHOCTONUS Ashmead

Tineophoctonus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 328, 351.
Type: ***Phaenodiscus armatus*** Ashmead. Orig. desig.

armatus (Ashmead). Fla.
Phaenodiscus armatus Ashmead, 1888. Ent. Amer. 4: 17. ♀.

tineaevorus (Ashmead). Fla. Host: Tineid larva in gall of *Andricus pattoni* (Bass.).
Leptomastix tineaevora Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 191. ♀.
Taxonomy: Ashmead, 1888. Ent. Amer. 4: 16.

Genus LEPTOMASTIX Foerster

Leptomastix Foerster, 1856. Hym. Stud., v. 2, pp. 34, 37 (no species).
Type: ***Leptomastix histrio*** Mayr. Included by Mayr, 1875.
Stenoterys Thomson, 1876 (1875). Hym. Scand., v. 4, pp. 115, 128.
Type: ***Stenoterys orbitalis*** Thomson. Monob.
Calocerinella Girault, 1913. Wis. Nat. Hist. Soc. Bul. 11: 46.
Type: ***Calocerinella trifasciatus*** Girault. Monob.

dactylopii Howard. Que., D. C., La., Calif., Wash. Hosts: *Phenacoccus gossypii* Tns. and Ckll.; *P. solani* Ferris; *Pseudococcus adonidum* (L.); *P. citri* (Risso); *P. comstocki* (Kuw.); *P. maritimus* (Ehrh.); *P. gahani* Green.
Leptomastix dactylopii Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 23. ♂ ♀.
Biology: Flanders, 1939. *In* Howard, Calif. Univ. Pubs., Ent. 7: 58.—Watson, 1939. Citrus Grower (Fla.) 1 (17): 11.—Bess, 1939. Ent. Soc. Amer. Ann. 32: 202–206. —McLeod, 1940 (1939). Ent. Soc. Ontario Ann. Rpt. 70: 65–66.—Clancy, 1944. Jour. Econ. Ent. 37: 450.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 115.
Taxonomy: Compere, 1939. Calif. Univ. Pubs., Ent. 7: 57–58.

Genus ANAGYRUS Howard

Anagyrus Howard, 1896. U. S. Natl. Mus. Proc. 18: 638.
Type: ***Anagyrus greeni*** Howard. Monob.
Epidinocarsis Girault, 1913. Arch. f. Naturgesch. 79A (6): 83.
Type: ***Epidinocarsis tricolor*** Girault. Monob.
Revisions: Timberlake, 1924. Calif. Univ. Pubs., Ent. 3: 224–231.—Compere, 1947. Calif. Univ. Pubs., Ent. 8: 20–22.

clauseni Timberlake. Calif. Host: *Pseudococcus maritimus* (Ehrh.).
Anagyrus clauseni Timberlake, 1924. Calif. Univ. Pubs., Ent. 3: 225. ♀.

fusciventris (Girault). Calif. Host: *Pseudococcus adonidum* (L.).
Epidinocarsis fusciventris Girault, 1915. Queensland Mus. Mem. 4: 144. ♀.

Biology: Flanders, 1940. Jour. Econ. Ent. 33: 757–758.—Flanders, 1940. Calif. Citrog. 25: 154.

nigritus (Howard). Calif. Host: *Dactylopius* sp. on *Artemisia*.
Aphycus nigritus Howard, 1898. U. S. Natl. Mus. Proc. 21: 243. ♀.

pallidipes Ashmead. D. C., La.
Anagyrus pallidipes Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 354. ♂.

pseudococci (Girault). Calif. Host: *Pseudococcus citri* (Risso).
Epidinocarsis pseudococci Girault, 1915. Entomologist 48: 185. ♂ ♀.
Biology: Flanders, 1939. Jour. Econ. Ent. 32: 889.

pulcher (Ashmead). Conn., Fla.
Dinocarsis pulcher Ashmead, 1888. Ent. Amer. 4: 17. ♀.

putonophilus Compere. Calif. Hosts: *Puto ambigua* (Full.); *P. yuccae* (Coq.).
Anagyrus putonophilus Compere, 1947. Calif. Univ. Pubs., Ent. 8: 20, 22. ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 45, 57–59.

thyridopterygis (Ashmead). N. J., Fla. Host: Recorded from *Thyridopteryx ephemeraeformis* (Haw.), but probably from an associated coccid.
Dinocarsis thyridopterygis Ashmead, 1886. Canad. Ent. 18: 97. ♀.

townsendi (Howard). N. Mex. Host: ?*Phenacoccus* sp. on cotton.
Aphycus townsendi Howard, 1898. U. S. Natl. Mus. Proc. 21: 243. ♀.

yuccae (Coquillett). Hosts: *Pseudococcus crawii* (Coq.); *P. maritimus* (Ehrh.); ?*P.* sp. on grapes; *Puto yuccae* (Coq.); *Achrysopophagus modestus* Timb.
Blastothrix yuccae Coquillett, 1890. West. Amer. Scientist 7: 44. ♀.
Epidinocarsis subalbicornis Girault, 1916. Psyche 16: 44. ♀.
Anagyrus ferrisi Compere, 1926. Calif. Univ. Pubs., Ent. 4: 18. ♂ ♀.
Biology: Clausen, 1924. Calif. Univ. Pubs., Ent. 3: 256–266, 274–276.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 55, 59.
Taxonomy: Gahan, 1949. Hawaii. Ent. Soc. Proc. 13: 359–360.
Morphology: Maple, 1937. Ent. Soc. Amer. Ann. 30: 146.

Genus COMPERIA Gomes

Comperia Gomes, 1942 (1941). Esc. Nac. Agron. Rio de Janeiro Bol. 2: 41.
Type: *Dicarnosis merceti* Compere. Monob.

merceti (Compere). Fla., Tex. Hosts: *Blatella germanica* (L.); *Supella supellectilium* (Serv.).
Dicarnosis merceti Compere, 1938. Bul. Ent. Res. 29: 317. ♀.
Comperia merceti var. *falsicornis* Gomes, 1942 (1941). Esc. Nac. Agron. Rio de Janeiro Bol. 2: 43. ♂ ♀. N. syn.

Genus APOANAGYRUS Compere

Apoanagyrus Compere, 1947. Calif. Univ. Pubs., Ent. 8: 18.
Type: *Apoanagyrus californicus* Compere. Monob.

californicus Compere. Calif. Host: *Pseudococcus solani* (Ckll.).
Apoanagyrus californicus Compere, 1947. Calif. Univ. Pubs., Ent. 8: 18. ♂ ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 63–66.

Genus PSEUDLEPTOMASTIX Girault

Pseudleptomastix Girault, 1915. Ent. Soc. Amer. Ann. 8: 272.
Type: *Pseudleptomastix squammulatus* Girault. Monob.

squammulata Girault. Calif. Hosts: *Amonostherium lichtensioides* (Ckll.); *Pseudococcus maritimus* (Ehrh.).
Pseudleptomastix squammulatus Girault, 1915. Ent. Soc. Amer. Ann. 8: 272. ♀.
Paraleptomastrix (!) *notatus* Girault, 1917. Entomologist 50: 38. ♀.
Pseudleptomastix flatulescens Compere, 1926. Calif. Univ. Pubs, Ent. 4: 22. ♂ ♀.
Biology: Clausen, 1924. Calif. Univ. Pubs., Ent. 3: 257–266, 277–279.—Maple 1947. Calif. Univ. Pubs., Ent. 8: 112–113.
Taxonomy: Timberlake, 1924. Calif. Univ. Pubs., Ent. 3: 232–235.—Compere, 1947. Calif. Univ. Pubs., Ent. 8: 17.

Genus ECTROMATOPSIS Compere

Ectromatopsis Compere, 1947. Calif. Univ. Pubs., Ent. 8: 13.
Type: *Ectromatopsis americana* Compere. Orig. desig.

americana (Howard). N. Mex., Calif. Host: *Phenacoccus solani* Ferris.
Ectroma americanum Howard, 1898. U. S. Natl. Mus. Proc. 21: 248. ♀.
Ectromatopsis americana Compere, 1947. Calif. Univ. Pubs., Ent. 8: 13, 15.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 78–80.

Genus HENICOPYGUS Ashmead

Henicopygus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 329, 355.
Type: *Henicopygus subapterus* Ashmead. Monob.

subapterus Ashmead. Tex., Colo.
Henicopygus subapterus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 356. ♀.
Biology: Brues and Melander, 1903. Biol. Bul. 5: 21.

Genus CALOCERINUS Howard

Calocerinus Howard, 1892. U. S. Natl. Mus. Proc. 15: 362, 368.
Type: ***Tetracnemus floridanus*** Ashmead. Monob.

floridanus (Ashmead). Fla.
Tetranemus (!) ***floridanus*** Ashmead, 1885. Amer. Ent. Soc. Trans 12: Proc. p. xviii. ♂.
Taxonomy: Girault, 1917. Descr. Stellarum Nov., p. 7.

Genus TETRALOPHIDEA Ashmead

Tetralophidea Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 327, 348.
Type: ***Tetralophidea bakeri*** Ashmead. Monob.

bakeri Ashmead. Colo.
***Tetralophidea* bakeri** Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 348. ♂.

Genus ANUSIA Foerster

Anusia Foerster, 1856. Hym. Stud., v. 2, p. 32 (no species).
Type: ***Anusia nasicornis*** Foerster. Desig. by Gahan and Fagan, 1923.

neomexicana Ashmead. N. Mex., Calif. Host: *Amonostherium lichtensioides* (Ckll.).
Anusia neomexicana Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 355. ♀.

xerophila Brues. Tex.
Anusia xerophila Brues, 1906. Ent. News 17: 61. ♂ ♀.

Genus MEROMYZOBIA Ashmead

Meromyzobia Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 328, 349.
Type: ***Ericydnus maculipennis*** Ashmead. Orig. desig.

americana (Ashmead). Fla.
Prionomastix americana Ashmead, 1888. Ent. Amer. 4: 16. ♂.

bifasciata (Ashmead). Colo.
Homalotylus bifasiatus (!) Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 28. ♀.

flava Ashmead. D. C.
Meromyzobia flava Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 350. ♂.

flavicincta (Ashmead). Fla.
Choreia flavicincta Ashmead, 1888. Ent. Amer. 4: 17. ♀.

maculipennis (Ashmead). N. J., Ohio. Hosts: *Anthracophaga ingrata* (Will.); *Meromyza americana* Fitch.
Ericydnus maculipennis Ashmead, 1893. Ohio Agr. Expt. Sta. Tech. Ser. Bul. 1: 162. ♂.

unifasciata Ashmead. Miss.
Meromyzobia unifasciata Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 350. ♀.

Genus TETRACNEMUS Westwood

Tetracnemus Westwood, 1837. Mag. Nat. Hist. 1: 258.
Type: ***Tetracnemus diversicornis*** Westwood. Monob.
Charitopus Foerster, 1856. Hym. Stud., v. 2, p. 31 (no species).
Type: ***Charitopus fulviventris*** Foerster. Included by Foerster] 1860.
Diversicornia Mercet, 1916. Soc. Españ. Hist. Nat. Bol. 16: 371.
Type: ***Diversicornia pinicola*** Mercet. Monob.

peregrinus Compere. Calif. Host: *Pseudococcus adonidum* (L.).
Tetracnemus peregrinus Compere, 1939. Calif. Univ. Pubs., Ent. 7: 59. ♂ ♀.
Biology: Flanders, 1940. Jour. Econ. Ent. 33: 757.—Flanders, 1944. Jour. Econ. Ent. 37: 308, 309.—DeBach, 1949. Ecology 30: 16–24.

pretiosus Timberlake. Calif. Hosts: *Pseudococcus adonidum* (L.); *P. gahani* Green.
Tetracnemus pretiosus Timberlake, 1929. Calif. Univ. Pubs., Ent. 5: 5. ♂ ♀.
Biology: Compere and Smith, 1932. Hilgardia 6: 585, 601–605, 609–617.— Quayle, 1932. Calif. Agr. Expt. Sta. Bul. 542: 51.—Clancy, 1934. Calif. Univ. Pubs., Ent. 6: 231–248.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 114–115.—DeBach. 1949. Ecology 30: 16–24.

Genus HABROLEPOIDEA Howard

Habrolepoidea Howard, 1894. Linn. Soc. London, Jour., Zool. 25: 89.
Type: ***Habrolepoidea glauca*** Howard. Monob.
Zarhopaloides Girault, 1915. Queensland Mus. Mem. 4: 99.
Type: ***Zarhopaloides axillaris*** Girault. Orig. desig.

depressa Girault. Ill. Host: *Megacyllene robiniae* (Forst.).
Habrolepoidea depressa Girault, 1916. Canad. Ent. 48: 343. ♂ ♀.

perplexa Girault. Pa.
Habrolepoidea perplexa Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 8. ♀.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 185. ♀.

tarsalis Girault. Ind.
Habrolepoidea tarsalis Girault, 1916. Canad. Ent. 48: 344. ♀.

Genus TETRALOPHIELLUS Ashmead

Tetralophiellus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 330, 357.
Type: ***Tetralophiellus brevicollis*** Ashmead. Monob.

brevicollis Ashmead. Fla.
Tetralophiellus brevicollis Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 357. ♂.

Genus TETRACLADIA Howard

Tetracladia Howard, 1892. U. S. Natl. Mus. Proc. 15: 367.
Type: ***Tetracladia texana*** Howard. Desig. by Ashmead, 1900.

gracilis Howard. Fla.
Tetracladia gracilis Howard, 1892. U. S. Natl. Mus. Proc. 15: 368. ♂.

texana Howard. Tex.
Tetracladia texana Howard, 1892. U. S. Natl. Mus. Proc. 15: 367. ♂.

Genus TETRACNEMOPSIS Ashmead

Tetracnemopsis Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 330, 358.
Type: ***Tetracnemus westwoodi*** Cockerell. Monob.

westwoodi (Cockerell). Colo. Host: *Phenacoccus minimus* Tinsley.
Tetracnemus Westwoodi Cockerell, 1898. Canad. Ent. 30: 224. ♂ ♀.

Genus PENTACNEMUS Howard

Pentacnemus Howard, 1892. U. S. Natl. Mus. Proc. 15: 362, 366.
Type: ***Pentacnemus bucculatricis*** Howard. Monob.

bucculatricis Howard. Ont., Maine, N. Y., Conn., Va., Mo. Hosts: *Recurvaria thujaella* Kearf.; *Argyresthia thuiella* (Pack.).
Pentacnemus bucculatricis Howard, 1892. U. S. Natl. Mus. Proc. 15: 366. ♂ ♀.
Biology: Underhill, 1943. Va. Agr. Expt. Sta. Bul. 349: 22.

Genus LEPTOMASTIDEA Mercet

Leptomastidea Mercet, 1916. Soc. Espan. Hist. Nat. Bol. 16: 112.
Type: ***Leptomastidea aurantiaca*** Mercet. Monob.
Tanaomastix Timberlake, 1918. Calif. Univ. Pubs., Ent. 1: 362.
Type: ***Paraleptomastix abnormis*** Girault. Orig. desig.
Revision: Mercet, 1924. Soc. Espan. Hist. Nat. Bol. 24: 252–258.

abnormis (Girault). Que., N. Y., Ill., Fla., La., Calif. Hosts: *Phenacoccus gossypii* Tns. and Ckll.; *Pseudococcus citri* (Risso); *P. kraunhiae* (Kuw.).
Paraleptomastix abnormis Girault, 1915. Entomologist 48: 184. ♀.
Biology: Smith, 1917. Jour. Econ. Ent. 10: 262–268.—Armitage, 1920. Calif. Dept. Agr., Monthly Bul. 9: 446.—Compere and Smith, 1932. Hilgardia 6: 610–611.—McLeod, 1940 (1939). Ent. Soc. Ontario Ann. Rpt. 70: 65–66. —Maple, 1947. Calif. Univ. Pubs., Ent. 8: 91–93.

claripennis (Timberlake). Calif. Host: *Pseudococcus ryani* (Coq.).
Tanaomastix claripennis Timberlake, 1918. Calif. Univ. Pubs., Ent. 1: 363, 365. ♀.

Genus HABROLEPOPTERYX Ashmead

Habrolepopteryx Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 330, 359.
Type: ***Psilophrys pulchripennis*** Ashmead. Monob.

marylandia Girault, emend. Md.
Habrolepopteryx marilandia Girault, 1917. Chalcidoidea Nova Marilandensis I, p. 1. ♀.

pulchripennis *aeneiscapus* Girault. Fla.
Habrolepopteryx pulchripennis var. ***aeneiscapus*** Girault, 1916. Ent. News 27: 225. ♀.

pulchripennis pulchripennis (Ashmead). Fla.
Psilophrys pulchripennis Ashmead, 1888. Ent. Amer. 4: 16. ♀.
Taxonomy: Girault, 1916. Ent. News 27: 225.

Genus CLAUSENIA Ishii

Clausenia Ishii, 1923. Japan Dept. Agr. and Com., Imp. Plant Quar. Sta. Bul. 3: 98, 100.
Type: ***Clausenia purpurea*** Ishii. Monob.

purpurea Ishii. Ont., Conn., Va. Host: *Pseudococcus comstocki* (Kuw.).
Clausenia purpurea Ishii, 1923. Japan Dept. Agr. and Com., Imp. Plant Quar. Sta. Bul. 3: 100. ♂ ♀.
Biology: Cox, 1940. Jour. Econ. Ent. 33: 446.—Clancy, 1944. Jour. Econ. Ent. 37: 450–451.—Haeussler and Clancy, 1944. Jour. Econ. Ent. 37: 503.—Hough, Clancy, and Pollard, 1945. Jour. Econ. Ent. 38: 423–425.
Morphology: Flanders, 1942. Ent. Soc. Amer. Ann. 35: 252, 262.

Genus ENCYRTUS Latreille

Encyrtus Latreille, 1809. Gen. Crust. Ins., v. 4, p. 31.
Type: ***Chrysis infidus*** Rossi. Desig. by Latreille, 1810.
Eucomys Foerster, 1856. Hym. Stud., v. 2, pp. 32, 34.
Type: ***Encyrtus swederi*** Dalman. Orig. desig.
Comys Foerster, 1856. Hym. Stud., v. 2, pp. 144, 145. N. name.
Howardia Dalla Torre, 1897. Wien. Ent. Ztg. 16: 86. Preocc.
Type: ***Bothriothorax peckhami*** Ashmead. Monob.
Howardiella Dalla Torre, 1898. Cat. Hym., v. 5, p. 228. N. name.

albicoxa (Ashmead). Fla. Hosts: *Pseudococcus adonidum* (L.); *P. citri* (Risso).
Comys albicoxa Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xvi. ♂ ♀.

atys (Girault), n. comb. N. Y.
Eucomys atys Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 2. ♀.

barbatus Timberlake. Calif.

Encyrtus barbatus Timberlake, 1919. Hawaii. Ent. Soc. Proc. 4: 209. ♂ ♀.
Biology: Ishii, 1932. Japan Dept. Agr. and Com., Imp. Agr. Expt. Sta. Bul. 3: 181, 187–188, 194.

bicolor (Howard). Ont., N. Y., N. J., D. C., Ohio, Mich., La., Kans., Colo., Calif.
Hosts: *Coccus hesperidum* L.; *Lecanium corni* Bouché; *L. fletcheri* Ckll.
Comys bicolor Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, pp. 350, 362. ♂ ♀.
Biology: Hubbard, 1885. Insects Affecting the Orange, p. 52.—Craw, 1894. Calif. State Bd. Hort. Bien. Rpt. 4: 97.

californicus (Girault). Calif. Hosts: *Lecanium corni* Bouché; *L. quercifex* Fitch.
Eucomys californicus Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 2. ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 115.

cyanocephalus Dalman. Europe, ?Ont. Hosts: *Lecanium caryae* Fitch; *L. corni* Bouché.
Encyrtus cyanocephalus Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 344. ♀.
Biology: Jarvis, 1911 (1910). Ent. Soc. Ontario Ann. Rpt. 41: 75.

fuscus (Howard). Ont., Que., N. Y., Mass., Conn., N. J., Ohio, Ala., Kans., Calif.
Hosts: *Lecanium corni* Bouché; *L. nigrofasciatum* Perg.; *L. pruinosum* Coq.; *L.* spp. on laurel-leaved oak, on *Heteromeles* and on *Quercus nigra; Pulvinaria vitis* (L.); *Saissetia hemisphaerica* (Targ.).
Comys fusca Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 363. ♂ ♀.
Chiloneurus maculatipennis Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 203. ♀.
Biology: Isaac, 1905. Calif. State Commr. Hort. Bien. Rpt. 1: 99.—Smith, 1915. Calif. State Comn. Hort. Monthly Bul. 4: 269.
Taxonomy: Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 360.

infelix (Embleton). N. Y. Host: *Saissetia hemisphaerica* (Targ.).
Comys infelix Embleton, 1902. Ent. Soc. London Trans., p. 223. ♀.
Biology: Maple, 1937. Ent. Soc. Amer. Ann. 30: 144, 148–151.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 82–83, 86–87.
Taxonomy: Embleton, 1904. Linn. Soc. London, Trans., Zool. (2) 9: 231–254.

infidus (Rossi). Europe, ?No. Amer.
Chrysis? infidus Rossi, 1790. Fauna Etrusca, v. 2, p. 80.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 84, 87–88.
Taxonomy: Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 360.

kansensis (Girault), n. comb. Kans.
Eucomys kansensis Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 2, ♀.

lecaniorum (Mayr). Europe, ?No. Amer.
Comys Lecaniorum Mayr, 1876 (1875). Zool.-Bot. Gesell. Wien, Verh. 25: 740. ♀.
Taxonomy: Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 360.

marylandicus alpinus (Girault). N. Y.
Eucomys marilandicus var. ***alpinus*** Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 2. ♀.

marylandicus marylandicus (Girault). Maine, Md., N. C.
Eucomys marilandicus Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 2. ♀.
Encyrtus marylandicus Gahan, Crosby and Leonard, 1928. N. Y. (Cornell) Agr. Expt. Sta. Mem. 101: 979. Emend.

peckhamii (Ashmead). N. C., Wis. Host: *Lecanium corni* Bouché.
Bothriothorax Peckhamii Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 132. ♂ ♀.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 183.

scutellatus (Swederus). Europe, ?Ont., ?Kans. Host: *Lecanium caryae* Fitch.
Pteromalus Scutellatus Swederus, 1795. Svenska Vetensk. Akad. Handl. 16: 218.
Taxonomy: Mercet, 1921. Fauna Ibérica, Himen., Encirtidos, pp. 559, 562.

Genus PSILOPHRYS Mayr

Psilophrys Mayr. 1876 (1875). Zool.-Bot. Gesell. Wien, Verh. 25: 727.
Type: ***Encyrtus longicornis*** Walker. Monob.

armata Ashmead. Fla.
Psilophrys armatus Ashmead, 1888. Ent. Amer. 4: 16. ♂ ♀.

Genus PARAPSILOPHRYS Howard

Parapsilophrys Howard, 1898. U. S. Natl. Mus. Proc. 21: 232.
Type: ***Parapsilophrys gelechiae*** Howard. Monob.

gelechiae Howard. Wyo. Host: *Gelechia* sp. on cottonwood.
Parapsilophrys gelechiae Howard, 1898. U. S. Natl. Mus. Proc. 21: 233. ♂ ♀.

Genus PSILOPHRYOIDEA Compere

Psilophryoidea Compere, 1928. Calif. Univ. Pubs., Ent. 4: 214.
Type: ***Psilophryoidea comesor*** Compere. Monob.

comesor Compere. Calif. Host: *Kermes cockerelli* Ehrh.
Psilophryoidea comesor Compere, 1928. Calif. Univ. Pubs., Ent. 4: 214. ♀.

Genus PARALITOMASTIX Mercet

Paralitomastix Mercet, 1921. Fauna Iberica, Himen., Encirtidos, pp. 70, 438.
Type: ***Encyrtus varicornis*** Nees. Monob.

pyralidis (Ashmead). Ont., Mich., Md., D. C., Fla., Utah. Calif. Hosts: *Anarsia lineatella* Zell.; *Trichotaphe flavocostella* Clem.; *T. setosella* Clem.
Eucyrtus (!) ***pyralidis*** Ashmead, 1888. Ent. Amer. 4: 15. ♀.
Copidosoma variegatum Howard, 1888. U. S. Dept. Agr. Insect Life 1: 197. ♀.
Biology: Pack, 1930. Utah Agr. Expt. Sta. Bul. 216: 15–16.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 109.
Taxonomy: Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 366.

Genus COPIDOSOMA Ratzeburg

Copidosoma Ratzeburg, 1844. Ichn. d. Forstins., v. 1, table facing p. 40, p. 157.
Type: ***Copidosoma bouchéanum*** Ratzeburg. Monob.
Berecyntus Howard, 1898. U. S. Natl. Mus. Proc. 21: 237. Preocc.
Type: ***Berecyntus bakeri*** Howard. Monob.
Litomastix Thomson, 1875. Hym. Scand., v. 4, pp. 118, 171. N. syn.
Type: ***Encyrtus chalconotus*** Dalman. Desig. by Ashmead, 1900.
Copidosomopsis Girault, 1915. Queensland Mus. Mem. 4: 94.
Type: ***Copidosomopsis perminutus*** Girault. Monob.
Paracopidosomopsis Girault, 1916. Psyche 23: 49. N. syn.
Type: (***Berecyntus floridanus*** Ashmead) = ***Copidosoma truncatellum*** (Dalm.). Monob. and orig. desig.
Verdunia Mercet, 1917. Soc. Espan. Hist. Nat. Bol. 17: 203.
Type: ***Verdunia gloriosa*** Mercet. Monob.
Litomastiellus Mercet, 1921. Fauna Ibérica, Himen., Encirtidos, p. 443. N. syn.
Type: ***Litomastix*** (***Litomastiellus***) ***claviger*** Mercet. Present desig.
Limastotix Mercet, 1921. Fauna Ibérica, Himen., Encirtidos, p. 443. N. syn.
Type: ***Litomastix*** (***Limastotix***) ***hispanicus*** Mercet. Monob.
Neocopidosoma Ishii, 1923. Japan Dept. Agr. and Com., Imp. Plant Quar. Sta. Bul. 3: 101.
Type: ***Neocopidosoma komabae*** Ishii. Monob.
Berecyntisus Ghesquière, 1946. Rev. Zool. Bot. Africaines 34: 368. N. name. N. syn.
Arrhenoclavus Doutt, 1948. Pan-Pacific Ent. 24: 145. N. syn.
Type: ***Copidosoma koehleri*** Blanchard. Monob.

bakeri arizonensis (Girault), n. comb. Ariz. Host: *Chorizagrotis* sp.
Berecyntus bakeri var. *arizonensis* Girault, 1916. Psyche 23: 49. ♀.

bakeri bakeri (Howard), n. comb. Ont., Mass., Colo., Utah. Hosts: *Chorizagrotis auxiliaris* (Grote); *Sidemia devastator* (Brace).
?*Litomastix auricollis* Thomson, 1875. Hym. Scand., v. 4, p. 175. ♂ ♀.
Berecyntus bakeri Howard, 1898. U. S. Natl. Mus. Proc. 21: 238. ♀.
Biology: Gibson, 1915. Canada Dept. Agr. Ent. Branch Bul. 10: 11.—Snow, 1925. Jour. Econ. Ent. 18: 606.

bakeri euxoae (Strickland), n. comb. Alta., Kans., N. Mex. Hosts: *Chorizagrotis auxiliaris* (Grote); *Feltia subgothica* (Haw.).
Berecyntus bakeri var. *euxoae* [Strickland], 1916. Canada Dept. Agr. Ent. Branch Bul. 13: 21. ♀.
Taxonomy: Girault, 1917. Descr. Stellarum Nov., p. 18.

bakeri gemma (Girault). Ont., Sask. Hosts: *Agrotis venerabilis* Wlkr.; *Chorizagrotis thanatologia* Dyar; *Euxoa detersa* (Wlkr.); *E. flavicollis* (Smith); *E. tristicula* (Morr.); *Feltia ducens* Wlkr.; *Crymodes devastator* (Brace).
Berecyntus bakeri var. *gemma* Girault, 1916. Psyche 23: 49. ♂ ♀.
Biology: King and Atkinson, 1928. Ent. Soc. Amer. Ann. 21: 174.

celaenae Howard. Que., Conn., Ohio, Ind., Mo., Miss. Hosts: *Euxoa scolastica* McD.; *Lacinipolia renigera* (Steph.).
Copidosoma celaenae Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 11. ♀.

gelechiae gelechiae Howard. N. H. to N. C.; Ont., Minn., Mo., Kans., Ariz. Hosts: *Epiblema scudderiana* (Clem.); *Gnorimoschema asterella* (Kell.); *G. gallaesolidaginis* (Riley); *G. salinaris* Busck.
Copidosoma gelechiae Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 10. ♂ ♀.
Psilophrys hyalinipennis Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 21. ♂. N. syn.
Psilophrys pallipes Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. V. ♀. Preocc.
Psilophrys pallidipes Schulz, 1906. Spolia Hym., p. 146. Emend.
Biology: Patterson, 1919. Jour. Hered. 10: 346.—Barber, 1938. N. Y. Ent. Soc. Jour. 46: 169–171, 174–175.
Morphology: Leiby, 1922. Jour. Morphology 37: 195–285.

gelechiae sagum Girault. Ont.
Copidosoma gelechiae var. *saga* Girault, 1920. U. S. Natl. Mus. Proc. 58: 188. ♂ ♀.

geniculatum (Dalman). Mass., N. Y., Conn. Host: *Rhyacionia buoliana* (Schiff.).
Encyrtus geniculatus Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 361. ♂.
Biology: Dowden, 1934. Ent. Soc. Amer. Ann. 27: 600.
Taxonomy: Mayr, 1875. Zool.-Bot. Gesell. Wien Verh. 25: 734–737.

intermedium Howard. N. J., Mo., Kans. Host: *Gnorimoschema gallae-asterella* (Kell.).
Copidosoma intermedium Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 12. ♂ ♀.

lymani Howard. Ont. Host: *Anacampsis lupinella* Busck.
Copidosoma Lymani Howard, 1907. Canad. Ent. 39: 103. ♀.

melanocerum (Ashmead). D. C., N. C., Kans., Iowa. Host: *Feltia subgothica* (Haw.).
Liothorax melanocera Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 363. ♀.

truncatellum (Dalman). Que. to Fla., west to Tex. and Ariz. Hosts: *Anomis erosa* Hbn.; *Autographa* sp.; *Prodenia ornithogalli* Guen.; *Trichoplusia ni* (Hbn.); *Zeuzera pyrina* (L.).
Encyrtus truncatellus Dalman, 1820. Svenska Vetensk. Akad. Handl. 41:168
Berecyntus floridanus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 365. ♀.
Biology: Silvestri, 1937. Harvard Univ., Mus. Compar. Zool. Bul. 81: 472–487.
Taxonomy: Mercet, 1921. Fauna Ibérica, Himen., Encirtidos, pp. 456–457.

turni (Packard). N. H., Conn., N. J. Host: *Papilio glaucus* (L.).
Encyrtus turni Packard, 1881. Boston Soc. Nat. Hist. Proc. 21: 32. ♂ ♀.

Taxonomy: Howard, 1889. *In* Scudder, Butterflies of Eastern U. S. and Canada, pp. 1872, 1888.

vagum Howard. Que., N. J., Mo., Host: *Filitima pseudoacaciella* (Chamb.).
Copidosoma vagum Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 11. ♂ ♀.

Copidosoma n. sp. (*nanellae* Amer. authors, not Silvestri). Maine, N. Y. Conn., Oreg. Hosts: *Eucordylea huntella* Keif.; *Exoteleia pinifoliella* (Chamb.); *Recurvaria thujaella* Kearf.
Taxonomy: Gahan, 1930. U. S. Natl. Mus. Proc. 77 (8): 7.

Genus SCEPTROPHORUS Foerster

Sceptrophorus Foerster, 1856. Hym. Stud., v. 2, pp. 34, 38.
Type: ***Encyrtus sceptriger*** Foerster. Desig. by Ashmead, 1900.

marylandicus Girault, emend. Md.
Sceptrophorus marilandicus Girault, 1917. Ent. News 28: 256. ♀.

Genus CERCHYSIUS Westwood

Cerchysius Westwood, 1832. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 1: 127.
Type: (***Encyrtus urocerus*** Dalman) = ***Encyrtus subplanus*** Dalman. Desig. by Westwood, 1840.
Revision: Girault, 1918. Ent. News 29: 65.

elasmoceri Ashmead. D. C., Va. Host: *Monophylla terminata* (Say).
Cerchysius elasmoceri Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 379. ♀.

flaccus (Walker). Fla.
Encyrtus (Cerchysius) Flaccus Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 21. ♀.

hubbardii Ashmead. Calif. Host: *Vrittella hubbardi* Schwarz [*?nomen nudum*] infesting stems of *Alleuroffia occidentalis*.
Cerchysius hubbardii Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 380. ♀.

marylandicus Girault, emend. Md.
Cerchysius marilandicus Girault, 1917 (1916). Insecutor Inscitiae Menstruus 4: 119. ♀.

pallipes (Provancher). Ont.
Copidosoma pallipes Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 205. ♀.
Copidosoma pallidipes Dalla Torre, 1898. Cat. Hym., v. 5, p. 243. Emend.

Genus BAEOCHARIS Mayr

Baeocharis Mayr, 1875. Zool.-Bot. Gesell. Wien Verh. 25: 767.
Type: ***Baeocharis pascuorum*** Mayr. Monob.
Sphaeropisthus Thomson, 1875. Hym. Scand., v. 4, pp. 116, 131.
Type: ***Sphaeropisthus pascuorum*** Thomson. Monob.

annulicornis (Ashmead). Fla.
Sphaeropisthus annulicornis Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 369. ♂.

auriceps (Ashmead). Fla.
Sphaeropisthus auriceps Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 369. ♀.

Genus CHESTOMORPHA Ashmead

Chestomorpha Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 335, 343, 370.
Type: ***Chestomorpha biformis*** Ashmead. Monob.

biformis Ashmead. N. Mex.
Chestomorpha biformis Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 370. ♀.

Genus AENASIUS Walker

Aenasius Walker, 1846. Ann. Mag. Nat. Hist. 17: 181.
Type: *Encyrtus* (*Aenasius*) *hyettus* Walker. Monob.
Revision: Compere, 1937. Hawaii. Ent. Soc. Proc. 9: 383–404.

maplei Compere. Calif. Host: *Puto yuccae* (Coq.).
Aenasius maplei Compere, 1937. Hawaii. Ent. Soc. Proc. 9: 384, 390, 397. ♂ ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 55–57.

Genus CHALCASPIS Howard

Chalcaspis Howard, 1895. U. S. Natl. Mus. Proc. 17: 606.
Type: *Chalcaspis pergandei* Howard. Monob.

arizonensis Girault. Ariz.
Chalcaspis arizonensis Girault, 1915. Ent. Soc. Amer. Ann. 8: 280. ♀.

pergandei Howard. Mass., D. C., S. Dak.
Chalcaspis pergandei Howard, 1895. U. S. Natl. Mus. Proc. 17: 606. ♀.

phenacocci (Ashmead). N. Mex., Calif. Host: *Phenacoccus cevalliae* Ckll.
Blepyrus phenacocci Ashmead, 1902. Canad. Ent. 34: 301. ♂ ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 115.

Genus BOTHRIENCYRTUS Timberlake

Bothriencyrtus Timberlake, 1919 (1918). Hawaii. Ent. Soc. Proc. 4: 185, 212.
Type: *Bothriothorax planiformis* Howard. Orig. desig.

planiformis (Howard). Calif.
Bothriothorax planiformis Howard, 1895. U. S. Natl. Mus. Proc. 17: 611. ♀.

Genus BOTHRIOTHORAX Ratzeburg

Bothriothorax Ratzeburg, 1844. Ichn. d. Forstins., v. 1, table facing p. 40; p. 208.
Type: (*Bothriothorax altensteinii* Ratzeburg) = *Encyrtus clavicornis* Dalman. Monob.
Trimorphocerus Dahlbom, 1857. Öfvers. Svenska Vetensk, Akad. Förh. 14: 293 (no species).
Type: (*Bothriothorax altensteinii* Ratzeburg) = *Encyrtus clavicornis* Dalman. Desig. by Gahan and Fagan, 1923.
Revision: Howard, 1895. U. S. Natl. Mus. Proc. 17: 607–611.

californicus Howard. Calif. Hosts: *Scaeva pyrastri* (L.); *Syrphus nitens* Zett.; *S. opinator* O. S.
Bothriothorax californicus Howard, 1895. U. S. Natl. Mus. Proc. 17: 609. ♀.
Biology: Kamal, 1926. Jour. Econ. Ent. 19: 726–728.

faridi Kamal. Calif. Host: *Syrphus opinator* O. S.
Bothriothorax faridi Kamal, 1926. Canad. Ent. 58: 283. ♂ ♀.
Biology: Kamal, 1939. Egypt Min. Agr. Tech. and Sci. Serv. Ent. Sect. Bul. 207: 33, 46, 48.

flaviscapus Girault. U. S. Host: Syrphid.
Bothriothorax flaviscapus Girault, 1915. Ent. Soc. Amer. Ann. 8: 276. ♂ ♀.

macroglenes Ashmead. Kans.
Bothriothorax macroglenes Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 4: App. p. V. ♀.

nigripes Howard. N. Mex., Calif. Host: *Eupeodes volucris* O. S.
Bothriothorax nigripes Howard, 1895. U. S. Natl. Mus. Proc. 17: 611. ♀.
Biology: Kamal, 1939. Egypt Min. Agr. Tech. and Sci. Serv. Ent. Sect. Bul. 207: 33, 46, 48.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 70–71.

noveboracensis Howard. N. H., N. Y., N. J.
Bothriothorax noveboracensis Howard, 1895. U. S. Natl. Mus. Proc. 17: 609. ♀.

peculiaris Howard. N. H., N. J., Va., Ill., Wis. Hosts: *Metasyrphus wiedemanni* Johns.; *Syrphus rectus* O. S.; *S. ribesii* (L.).
Bothriothorax peculiaris Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 20. ♂ ♀.

rotundiformis Howard. Calif.
Bothriothorax rotundiformis Howard, 1895. U. S. Natl. Mus. Proc. 17: 610. ♀.

virginiensis Howard. Va.
Bothriothorax virginiensis Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul 5: 20. ♀.

Genus PENTELICUS Howard

Pentelicus Howard, 1895. U. S. Natl. Mus. Proc. 17: 606, 611.
Type: ***Pentelicus aldrichi*** Howard. Monob.

aldrichi Howard. S. Dak.
Pentelicus aldrichi Howard, 1895. U. S. Natl. Mus. Proc. 17: 612. ♀.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 183.

Genus BLEPYRUS Howard

Blepyrus Howard, 1898. U. S. Natl. Mus. Proc. 21: 233.
Type: ***Blepyrus mexicanus*** Howard. Desig. by Ashmead, 1900.
Coccophoctonus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 337, 344, 375.
Type: (***Coccophagus dactylopii*** Ashmead)=***Blepyrus mexicanus*** Howard. Monob.

insularis (Cameron). Tex. Host: *Ferrisiana virgata* (Ckll.).
Encyrtus? insularis Cameron, 1886. *In* Blackburn and Cameron, Manchester Lit. Phil. Soc. Mem. (3) 10: 243. "♂"=♀.
Blepyrus texanus Howard, 1898. U. S. Natl. Mus. Proc. 21: 235. ♀.
Taxonomy: Timberlake, 1922. Hawaii. Ent. Soc. Proc. 5: 170–173.

saccharicola Gahan. Fla., La. Host: *Pseudococcus* sp. on sugarcane.
Blepyrus saccharicola Gahan, 1942. U. S. Natl. Mus. Proc. 92: 47. ♂ ♀.

Genus HEMAENASIUS Ashmead

Hemaenasius Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 336, 374.
Type: ***Hemaenasius confusus*** Ashmead. Monob.
Hemiaenasius Schulz, 1906. Spolia Hym., p. 146. Emend.

confusus Ashmead. D. C.
Hemaenasius confusus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 374. ♀.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 183.

Genus TRICHOMASTHUS Thomson

Trichomasthus Thomson, 1875. Hym. Scand, v. 4, pp. 131, 134.
Type: ***Encyrtus cyaneus*** Dalman. Desig. by Gahan and Fagan, 1923.

cyanifrons (Dalman). Va. Host: *Lecanium corni* Bouché.
Encyrtus cyanifrons Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 159.
Taxonomy: Mercet, 1921. Fauna Ibérica, Himen., Encirtidos, pp. 369–372.

Genus DISCODES Foerster

Discodes Foerster, 1856. Hym. Stud., v. 2, pp. 32, 34, 144.
Type: ***Encyrtus aeneus*** Dalman. Orig. desig.
Phaenodiscus Foerster, 1856. Hym. Stud., v. 2, p. 144. N. name.

arizonensis (Howard), n. comb. Colo., N. Mex., Ariz.
Phaenodiscus arizonensis Howard, 1898. U. S. Natl. Mus. Proc. 21: 248. ♀.

unicolor (Ashmead), n. comb. Fla.
Aphycus unicolor Ashmead, 1888. Ent. Amer. 4: 15. ♀.

Genus EURYRHOPALUS Howard

Euryrhopalus Howard, 1898. U. S. Natl. Mus. Proc. 21: 237.
Type: ***Euryrhopalus schwarzi*** Howard. Monob.
Synaspidia Timberlake, 1923. Hawaii. Ent. Soc. Proc. 5: 397.
Type: ***Synaspidia pretiosa*** Timberlake. Monob.
Revision: Gahan, 1942. U. S. Natl. Mus. Proc. 92: 49.

schwarzi Howard. Fla.
Euryrhopalus schwarzi Howard, 1898. U. S. Natl. Mus. Proc. 21: 237. ♀.
Taxonomy: Gahan, 1942. U. S. Natl. Mus. Proc. 92: 49.

Genus RHYTIDOTHORAX Ashmead

Rhytidothorax Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 337, 344, 377.
Type: ***Rhytidothorax marlatti*** Ashmead. Monob.

marlatti Ashmead. Kans.
Rhytidothorax marlatti Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 377. ♀.

Genus HOMALOTYLUS Mayr

Homalotylus Mayr, 1876 (1875). Zool.-Bot. Gesell. Wien Verh. 25: 752.
Type: ***Encyrtus flaminius*** Dalman. Desig. by Ashmead, 1900.
Nobrimus Thomson, 1875. Hym. Scand., v. 4, pp. 116, 137.
Type: ***Encyrtus flaminius*** Dalman. Desig. by Timberlake, 1919.
Mendozaniella Brèthes, 1913. Buenos Aires Mus. Nac. Hist. Nat. An. 24: 97.
Type: ***Mendozaniella mirabilis*** Brèthes. Monob.
Hemaenasoidea Girault, 1916. Ent. Soc. Amer. Ann. 9: 307.
Type: ***Hemaenasoidea oculata*** Girault. Monob.
Revision: Timberlake, 1919. U. S. Natl. Mus. Proc. 56: 133.

affinis Timberlake. Calif. Host: *Hyperaspis osculans* Lec.
Homalotylus affinis Timberlake, 1919. U. S. Natl. Mus. Proc. 56: 165. ♀.

albitarsus Gahan. Md. Hosts: *Lecanium? nigrofasciatum* Perg. on peach; coccinellid.
Homalotylus albitarsus Gahan, 1910. Canad. Ent. 42: 206. ♀.

cockerelli Timberlake. Tex. Hosts: ?*Dactylopius confusus* (Ckll.); *Pseudococcus* sp.; ? *Hyperaspidius trimaculatus* (L.).
Homalotylus cockerelli Timberlake, 1919. U. S. Natl. Mus. Proc. 56: 163. ♂ ♀.

flaminius (Dalman). La.
Encyrtus flaminius Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 340. ♂.
Taxonomy: Mercet, 1921. Fauna Ibérica, Himen., Encirtidos, pp. 519–522, 712.

hyperaspidis Timberlake. Utah, Calif. Host: *Hyperaspis undulata* (Say).
Homalotylus hyperaspidis Timberlake, 1919. U. S. Natl. Mus. Proc. 56: 167. ♂ ♀.

punctifrons Timberlake. Fla.
Homalotylus punctifrons Timberlake, 1919. U. S. Natl. Mus. Proc. 56: 169. ♀.

terminalis californicus Girault. Mass., Md., D. C., S. C., Utah, Calif. Hosts: *Adalia bipunctata* (L.); *Coccinella novemnotata* Hbst.; *C. quinquenotata* Kby.; *C. transversoguttata* Fald.; *Hippodamia convergens* Guér.; *Disonycha* sp.
Homalotylus obscurus var. ***californicus*** Girault, 1915. Ent. Soc. Amer. Ann. 8: 274. ♀.

terminalis terminalis (Say). N. Y., Mass., N. J., Pa., Del., Ind., Ill., Fla., La., Tex. Hosts: *Coleomegilla maculata* (Deg.); *C.* sp.; *Cycloneda sanguinea* (L.); *C. sanguinea immaculata* (F.); *Chilocorus similis* (Rossi); *Coccinella novemnotata* Hbst.; *C. sanguinea* (L.); *Hippodamia convergens* Guér.; *Neomysia pullata* (Say); *Psyllobora viginti-maculata* (Say); *Scymnus* sp.
Serlion (!) terminalis Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 80.
Eutelus ? ***scymnae*** Shimer, 1869. Amer. Ent. Soc. Trans. 2: 385. ♂.
Homalotylus obscurus Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 22. ♀.

Genus ANISOTYLUS Timberlake

Anisotylus Timberlake, 1919. U. S. Natl. Mus. Proc. 56: 170.
Type: ***Homalotylus similis*** Ashmead. Orig. desig.

pallentipes Timberlake. Ariz.
Anisotylus pallentipes Timberlake, 1919. U. S. Natl. Mus. Proc. 56: 175. ♀.

similis similis (Ashmead). Fla. Host: *Scymnus cervicalis* Muls.
Homalotylus similis Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 190.

similis texanus Timberlake. Tex. Host: *Hyperaspis bigeminata* (Rand.).
Anisotylus similis subsp. ***texanus*** Timberlake, 1919. U. S. Natl. Mus. Proc. 56: 173. ♀.

similis utahensis Timberlake. Utah, Calif. Hosts: *Scymnus americanus* Muls.; S. *lacustris* Lec.
Anisotylus similis utahensis Timberlake, 1919. U. S. Natl. Mus. Proc. 56: 174. ♂ ♀.

Genus AGENIASPIS Dahlbom

Ageniaspis Dahlbom, 1857. Öfvers. Svenska Vetensk. Akad. Forh. 14: 293 (no species).
Type: ***Encyrtus fuscicollis*** Dalman. Desig. by Ashmead, 1904.
Holcothorax Mayr, 1876 (1875). Zool.-Bot. Gesell. Wien Verh. 25: 691.
Type: ***Encyrtus (Holcothorax) testaceipes*** Ratzeburg. Desig. by Gahan and Fagan, 1923.

bucculatricis (Howard). Ont., N. Y., N. J., D. C., Ohio, Mo. Hosts: *Bucculatrix pomifoliella* Clem.; galls of *Rhabdophaga cornuta* Walsh and *R. siliqua* Walsh.
Encyrtus bucculatricis Howard, 1883. *In* Lintner, Injurious Insects N. Y. Ann. Rpt. 1: 160. ♀.

Genus PRIONOMITUS Mayr

Prionomitus Mayr, 1876 (1875). Zool.-Bot. Gesell. Wien Verh. 25: 701.
Type: (***Encyrtus chlorinus*** Dalman)=***Encyrtus mitratus*** Dalman. Monob.

mitratus (Dalman). Utah.
Encyrtus mitratus Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 352. ♀.

tiliaris (Dalman). Europe. ?No. Amer.
Encyrtus tiliaris Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 171.

Genus THYSANOMASTIX Perkins

Thysanomastix Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta. Div. Ent. Bul. 4: 55.
Type: ***Thysanomastix koebelei*** Perkins. Monob.

koebelei Perkins. Ariz. Host: *Cuerna lateralis* (F.).
Thysanomastix koebelei Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta. Div. Ent. Bul. 4: 55. ♀.

Genus PSYLLAEPHAGUS Ashmead

Psyllaephagus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 339, 345, 382.
Type: ***Encyrtus pachypsyllae*** Howard. Orig. desig.

arbuticola Gahan and Waterston. Calif. Host: *Euphyllura arbuti* Schwarz.
Psyllaephagus arbuticola Gahan and Waterston, 1926. Bul. Ent. Res. 16: 373. ♂ ♀.

pachypsyllae (Howard). Md., N. C., Kans. Host: *Pachypsylla celtidis-gemma* (Riley).
Encyrtus pachypsyllae Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 15. ♂ ♀.

solus (Howard). Fla. Host: *Trioza magnoliae* (Ashm.).
Encyrtus solus Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 15. ♀.
Taxonomy: Gahan and Waterston, 1926. Bul. Ent. Res. 16: 375.

trioziphagus (Howard). Md., N. C., Ohio. Hosts: *Trioza diospyri* (Ashm.).
Encyrtus trioziphagus Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 14. ♂ ♀.
Biology: Eddy, 1927. Ohio Jour. Sci. 27: 196–197.

Genus MICROTERYS Thomson

Microterys Thomson, 1875. Hym. Scand., v. 4, pp. 118, 155.
Type: ***Encyrtus sylvius*** Dalman. Desig. by Ashmead, 1900.
Revision: Compere, 1926. Calif. Univ. Pubs., Ent. 4: 39–44 (Calif.).

bolus (Walker). Ont. Host: ?*Coccus* sp. on willow twigs.
Encyrtus Bolus Walker, 1844. Ann. Mag. Nat. Hist. (1) 14: 17. ♀.

cincticornis Ashmead. N. H., Mass., Ill. Host: *Kermes pubescens* Bogue.
Microterys cincticornis Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 390.

claripennis Compere. Calif. Host: *Lecanium corni* Bouché.
Microterys claripennis Compere, 1928. Calif. Univ. Pubs., Ent. 4: 216. ♂ ♀.

dubiosus (Dalla Torre). Calif. Host: *Icerya purchasi* Mask.
Encyrtus dubius Howard, 1889. U. S. Dept. Agr. Insect Life 1: 270. ♂. Preocc.
Encyrtus dubiosus Dalla Torre, 1898. Cat. Hym., v. 5, p. 257. N. name.

flavus (Howard). Ont., N. J., Ohio. Ill., Fla., Calif. Hosts: *Coccus hesperidum* L.; *C. pseudomagnoliarum* (Kuw.); *Lecanium corni* Bouché; *L. fletcheri* Ckll.; *Pulvinaria vitis* (L.); *Saissetia hemisphaerica* (Targ.).
Encyrtus flavus Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 367. ♂ ♀.
Biology: Isaac, 1905. Calif. State Commr. Hort. Bien. Rpt. 1: 99, 102.—Timberlake, 1913. Jour. Econ. Ent. 6: 295.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 98–100, 102–103.

fuscicornis (Howard). Md., Minn. Host: *Toumeyella numismaticum* (P. and McD.).
Encyrtus fuscicornis Howard, 1885. U. S. Dept. Agr. Div. Ent. Bul. 5: 13. ♀.

interpunctus (Dalman). Europe, Greenland, ?No. Amer.
Encyrtus interpunctus Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 157. ♀.

lachni (Ashmead). Fla. Host: *Lachnus australis* Ashm.
Homalotylus lachni Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 132. ♀.

lunatus (Dalman). Europe, ?No. Amer.
Encyrtus lunatus Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 156. ♀.

marginatus Ashmead. N. Mex.
Microterys marginatus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 392. ♀.

mazzinini Girault. Calif. Host: *Physokermes insignicola* (Craw).
Microterys mazzinini Girault, 1917. Descr. Stellarum Nov., pp. 12, 13. ♂ ♀.

montinus (Packard). N. H. Host: ?*Lecanium* sp.
Encyrtus Montinus Packard, 1874. *In* Hitchcock and Huntington, Geol. of N. H., v. 1, p. 347. ♀.
Taxonomy: Howard, 1888. Ent. Soc. Wash. Proc. 1: 91.

physokermis Compere. Calif. Host: *Physokermes insignicola* (Craw).
Microterys physokermis Compere, 1926. Calif. Univ. Pubs., Ent. 4: 43. ♀.

speciossisimus Girault. Ill. Host: *Kermes pubescens* Bogue.
Microterys speciosissimus Girault, 1911. Canad. Ent. 43: 175. ♀.

sublestus (Howard). Conn., Fla. Hosts: ?*Lecanium* sp. on *Pinus palustris*, *L.* sp.
Encyrtus sublestus Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 12. ♂.

sylvius (Dalman). Europe, ?No. Amer.
Encyrtus sylvius Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 154. ♀.
Taxonomy: Mercet, 1921. Fauna Ibérica, Himen., Encirtidos, pp. 394–397. ♂ ♀.

tessellatus (Dalman). Greenland.
Encyrtus tessellatus Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 342. ♀.
Taxonomy: Mercet, 1921. Fauna Ibérica, Himen., Encirtidos, pp. 420–423. ♂ ♀.

titiani Girault. Calif. Host: *Lecanium corni* Bouché.
Microterys titiani Girault, 1917. Descr. Stellarum Nov., p. 13. ♂ ♀.
Biology: DeBach, 1939. Jour. Econ. Ent. 32: 728.

xanthopsis Compere. Calif. Hosts: *Lecanium corni* Bouché; *L. persicae* (F.).
Microterys xanthopsis Compere, 1926. Calif. Univ. Pubs., Ent. 4: 41. ♀.

yolandae Compere. Calif. Host: *Kermes cockerelli* Ehrh.
Microterys yolandae Compere, 1926. Calif. Univ. Pubs., Ent. 4: 39. ♀.

Genus EPIENCYRTUS Ashmead

Epiencyrtus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 340, 346, 396.
Type: *Encyrtus thyreodontis* Ashmead. Orig. desig.

artaceae (Howard). Fla.
Encyrtus artaceae Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 252. ♂ ♀.
Taxonomy: Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 397.

thyreodontis (Ashmead). Mass. Host: *Thyreodon atricolor* (Oliv.).
Encyrtus thyreodontis Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 156. ♀.
Biology: Dimmock, 1898. Ent. Soc. Wash. Proc. 4: 149.

Genus ISODROMUS Howard

Isodromus Howard, 1887. U. S. Dept. Agr. Ann. Rpt. for 1886, p. 488.
Type: *Isodromus iceryae* Howard. Monob.
Parataneostigma Girault, 1915. Ent. Soc. Amer. Ann. 8: 275.
Type: (*Parataneostigma nigriaxillae* Girault)=*Isodromus iceryae* Howard. Monob.
Revision: Timberlake, 1919. U. S. Natl. Mus. Proc. 56: 176–190.

The true hosts of this genus are probably Chrysopidae.

atriventris Ashmead. Ont., Que., Mass., Va., Fla. Host: *Chrysopa lateralis* Guér.
Isodromus atriventris Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 379. ♀.

iceryae Howard. Md., D. C., N. C., S. C., Fla., La., Mo., Kans., Calif. Hosts: *Sympherobius angustus* (Banks); *S. californicus* (Banks); *Chrysopa californica* Coq.; *C. lateralis* Guér.; *C. rufilabris* Burm.; ?*Saissetia oleae* (Bern.).
Isodromus iceryae Howard, 1887. U. S. Dept. Agr. Ann. Rpt. for 1886, p. 488. ♀.
Parataneostigma nigriaxillae Girault, 1915. Ent. Soc. Amer. Ann. 8: 275. ♀.
Isodromus pulcher Girault, 1917. Descr. Stellarum Nov., p. 16. ♀.
Biology: Riley, 1889. U. S. Dept. Agr. Ann. Rpt. for 1888, pp. 85-86.—Clancy, 1946. Calif. Univ. Pubs., Ent. 7: 426–432.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 90.

niger Ashmead. Mass., D. C., Wis., Utah, Calif. Hosts: *Sympherobius angustus* (Banks); *Chrysopa californica* Coq.; *C. majuscula* Banks; *C. oculata* Say.
Isodromus niger Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 379. ♀.
Biology: Clancy, 1946. Calif. Univ. Pubs., Ent. 7: 418–426.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 91–92.

puncticeps (Howard). D. C., Va., Fla., Calif. Hosts: *Chrysopa* sp.
Encyrtus puncticeps Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 14. ♀.
Aphycus chrysopae Ashmead, 1888. Ent. Amer. 4: 15. ♀.

Genus NEOCOCCIDENCYRTUS Compere

Neococcidencyrtus Compere, 1928. Calif. Univ. Pubs., Ent. 4: 209.
Type: *Neococcidencyrtus alula* Compere. Monob.

alula Compere. Calif. Host: *Diaspis zamiae* Morg.
Neococcidencyrtus alula Compere, 1928. Calif. Univ. Pubs., Ent. 4: 213. ♂ ♀.

Genus COCCIDENCYRTUS Ashmead

Coccidencyrtus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 339, 345, 383.
Type: *Encyrtus ensifer* Howard. Monob.

ensifer (Howard). Mass., Maine, Fla. Hosts: *Aspidiotus corticalis* Riley; *A. juglans-regiae* Comst.; *A. perniciosus* Comst.; *Targionia dearnessi* Ckll.
Encyrtus ensifer Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 13. ♂ ♀.
Taxonomy: Girault, 1915. Ent. Soc. Amer. Ann. 8: 284.—Compere, 1928. Calif. Univ. Pubs., Ent. 4: 212.

ochraceipes Gahan. N. Y. Host: *Diaspis boisduvali* Sign.
Coccidencyrtus ochraceipes Gahan, 1927. U. S. Natl. Mus. Proc. 71 (4): 18. ♀.

Genus BOTHRIOCRAERA Timberlake

Bothriocraera Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 567.
Type: *Bothriocraera flavipes* Timberlake. Monob.

flavipes Timberlake. Utah. Host: Mealybug on *Elymus*.
Bothriocraera flavipes Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 568. ♂ ♀.

Genus PSEUDAPHYCUS Clausen

Pseudaphycus Clausen, 1915. Calif. Agr. Expt. Sta. Bul. 258: 41.
Type: *Pseudaphycus angelicus* Howard. Monob.
Revision: Gahan, 1946. U. S. Natl. Mus. Proc. 96: 311–327.
Nearctic host records of this genus refer only to pseudococcine scale insects.

abstrusus Gahan. Va. Host: *Pseudococcus comstocki* (Kuw.).
Pseudaphycus abstrusus Gahan, 1946. U. S. Natl. Mus. Proc. 96: 313, 316. ♂ ♀.

alveolatifrons Gahan. N. J. Host: *Pseudococcus comstocki* (Kuw.).
Pseudaphycus alveolatifrons Gahan, 1946. U. S. Natl. Mus. Proc. 96: 314, 326. ♂ ♀.

angelicus (Howard). Que., Calif. Hosts: *Phenacoccus gossypii* Tns. and Ckll.; *Pseudococcus adonidum* (L.); *P. gahani* Green; *P. maritimus* (Ehrh.); *P. ryani* (Coq.); *P.* sp. on *Artemisia californica; P.* sp. on passion flowers.
Aphycus angelicus Howard, 1898. U. S. Natl. Mus. Proc. 21: 245. ♀.
Biology: Flanders, 1940. Jour. Econ. Ent. 33: 756–758.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 110–111.—Haeussler and Clancy, 1944. Jour. Econ. Ent. 37: 504–509.
Taxonomy: Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 573–574. ♂ ♀.

graminicola Timberlake. N. Mex., Utah. Hosts: *Trionymus utahensis* (Ckll.); pseudococcine coccid on *Elymus condensatus*.
Pseudaphycus graminicola Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 570. ♂ ♀.

limatulus Gahan. Md. Host: *Phenacoccus* sp. on *Andropogon* sp.
Pseudaphycus limatulus Gahan, 1946. U. S. Natl. Mus. Proc. 96: 313, 324. ♂ ♀.

malinus Gahan. Ont., Conn., N. J., Del., Va., Ohio. Host: *Pseudococcus comstocki* (Kuw.).
Pseudaphycus malinus Gahan, 1946. U. S. Natl. Mus. Proc. 96: 313, 317. ♂ ♀.

meracus Gahan. Va. Host: *Ferrisiana virgata* (Ckll.).
Pseudaphycus meracus Gahan, 1946. U. S. Natl. Mus. Proc. 96: 314, 325. ♂ ♀.

meritorius Gahan. Va. Host: *Ferrisiana virgata* (Ckll.).
Pseudaphycus meritorius Gahan, 1946. U. S. Natl. Mus. Proc. 96: 312, 314. ♂ ♀.

mundus Gahan. Va., Ga., Fla., La. Hosts: *Phenacoccus gossypii* Tns. and Ckll.; *Pseudococcus adonidum* (L.); *P. boninsis* (Kuw.); *P. comstocki* (Kuw.).
Pseudaphycus mundus Gahan, 1946. U. S. Natl. Mus. Proc. 96: 313. ♂ ♀.
Biology: Bynum, 1938. La. Agr. Expt. Sta. Bul. 298: 27–29 (*terryi*).—Clancy and Pollard, 1947. Jour. Econ. Ent. 40: 579.

prosopidis Timberlake. N. Mex. Host: *Pseudococcus prosopidis* (Ckll.).
Pseudaphycus prosopidis Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 571. ♀.

websteri Timberlake. Ill., Ind. Hosts: *Pseudococcus maritimus* (Ehrh.); ?mealybug on stem of *Elymus virginicus*.
Pseudaphycus websteri Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 572. ♀.

Genus ACEROPHAGUS E. A. Smith

Acerophagus E. A. Smith, 1880. No. Amer. Ent. 1: 83.
Type: ***Acerophagus coccois*** Smith. Monob.
Rhopoideus Howard, 1898. U. S. Natl. Mus. Proc. 21: 235.
Type: ***Rhopoideus citrinus*** Howard. Monob.
Revisions: Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 574–579.—Timberlake, 1918. Calif. Univ. Pubs., Ent. 1: 347–351.

citrinus (Howard). Calif., Nev. Hosts: ?*Aspidiotus perniciosus* Comst.; ?*Aulacaspis rosae* (Bouché).
Rhopoideus citrinus Howard, 1898. U. S. Natl. Mus. Proc. 21: 235. ♀.

coccois Smith. Mass., N. J., Pa., Ill. Hosts: *Phenococcus acericola* King; *Pulvinaria vitis* (L.).
Acerophagus coccois Smith, 1880. No. Amer. Ent. 1: 84. ♀.
Biology: Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 361.

erii Timberlake. Utah. Host: *Amonostherium lichtensioides* (Ckll.).
Acerophagus erii Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 577. ♂ ♀.

fasciipennis Timberlake. Calif. Host: *Pseudococcus crawii* (Coq.).
Acerophagus fasciipennis Timberlake, 1918. Calif. Univ. Pubs., Ent. 1: 347, 351. ♂ ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 54, 109.

gutierreziae Timberlake. N. Mex. Host: *Pseudococcus gutierreziae* (Ckll.).
Acerophagus gutierreziae Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 577. ♂ ♀.

notativentris (Girault). Calif. Hosts: *Pseudococcus maritimus* (Ehrh.); *P.* sp. on grape; *P.* sp.
Pseudaphycus notativentris Girault, 1917. Descr. Hym. Chalcidoid Variorum cum Observ. III, p. 10. ♂ ♀.
Biology: Clausen, 1924. Calif. Univ. Pubs., Ent. 3: 256–266, 271–274.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 54.

pallidus Timberlake. Calif. Hosts: *Phenacoccus gossypii* Tns. and Ckll.; *P. solani* Ferris; *Pseudococcus eriogoni* (Ehrh.); *P. maritimus* (Ehrh.).
Acerophagus pallidus Timberlake, 1918. Calif. Univ. Pubs., Ent. 1: 348. ♂ ♀.
Biology: Flanders, 1944. Jour. Econ. Ent. 37: 312.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 54–55, 109.

texanus (Howard). Tex. Host: *Ferrisiana virgata* (Ckll.).
Aphycus texanus Howard, 1898. U. S. Natl. Mus. Proc. 21: 245. ♀.

Genus CIRRHENCYRTUS Timberlake

Cirrhencyrtus Timberlake, 1918. Univ. Calif. Pubs., Ent. 1: 360, 362.
Type: ***Pseudococcobius ehrhorni*** Timberlake. Monob.

ehrhorni (Timberlake). Calif. Hosts: *Pseudococcus ryani* (Coq.); *P. sequoiae* (Colm.).
Pseudococcobius ehrhorni Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 564. ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 115.
Taxonomy: Timberlake, 1918. Calif. Univ. Pubs., Ent. 1: 360, 362.

Genus AENASIOIDEA Girault

Aenasioidea Girault, 1911. Canad. Ent. 43: 171.
Type: *Aenasioidea latiscapus* Girault. Monob.
Revision: Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 579–585.

armitagei Compere. Calif. Host: ? *Kermes* on native oak.
Aenasioidea armitagei Compere, 1926. Calif. Univ. Pubs., Ent. 4: 30. ♀.

kermicola Timberlake. Utah, Calif. Hosts: *Kermes galliformis* Riley; *K. nigropunctatus* Ehrh. and Ckll.
Aenasioidea kermicola Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 583. ♂ ♀.

latiscapus Girault. Ill. Host: *Kermes pubescens* Bogue.
Aenasioidea latiscapus Girault, 1911. Canad. Ent. 43: 173. ♀.

pulchella (Howard). N. Y., N. J., Okla. Hosts: *Kermes pubescens* Bogue; *K.* sp. on *Quercus velutina.*
Aphycus pulchellus Howard, 1898. U. S. Natl. Mus. Proc. 21: 242. ♀.

trimblei Dozier. Pa. Host: *Lecanium quercifex* Fitch.
Aenasioidea trimblei Dozier, 1935. Ent. Soc. Wash. Proc. 37: 183. ♂ ♀.

Genus APHYCUS Mayr

Aphycus Mayr, 1876 (1875). Zool.-Bot. Gesell. Wien Verh. 25: 695.
Type: *Encyrtus apicalis* Dalman. Desig. by Ashmead, 1900.
Pseudococcobius Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 563.
Type: *Aphycus terryi* Fullaway. Orig. desig.
Metaphycus Mercet, 1917. Soc. Españ. Hist. Nat. Bol. 17: 129, 138.
Type: *Metaphycus zebratus* Mercet. Monob.
Euaphycus Mercet, 1921. Fauna Ibérica, Himen., Encirtidos, p. 197.
Type: *Encyrtus hederaceus* Westwood. Desig. by Mercet, 1925.
Melanaphycus Compere, 1947. Calif. Univ. Pubs., Ent. 8: 1. N. syn.
Type: *Pseudococcobius fumipennis* Timberlake. Orig. desig.
Erythraphycus Compere, 1947. Calif. Univ. Pubs., Ent. 8: 7. N. syn.
Type: *Erythraphycus argyrocomus* Compere. Orig. desig.
Revisions: Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 587–639.—Compere, 1947. Calif. Univ. Pubs., Ent. 8: 1–13.

Nearctic host records refer either to coccids or to chalcidoid parasites of coccids.

alberti Howard. Calif. Host: *Coccus hesperidum* (L.).
Aphycus alberti Howard, 1898. U. S. Natl. Mus. Proc. 21: 242, 247. ♂ ♀.
Biology: Timberlake, 1913. Jour. Econ. Ent. 6: 294–295.
Taxonomy: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 94–95.

annulipes (Ashmead), n. comb. Ont., Fla. Hosts: *Lecanium corni* Bouché; *L. nigrofasciatum* Perg.; *L.* sp. on *Quercus nigra.*
Coccophagus annulipes Ashmead, 1882. Canad. Ent. 14: 37. ♀.

apicalis (Dalman). Europe; ?No. Amer.
Encyrtus apicalis Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 153.
Taxonomy: Mercet, 1921. Fauna Ibérica, Himen., Encirtidos, pp. 228–231.

argyrocomus (Compere), n. comb. Calif. Host: *Eriococcus* sp. on croton, asters, and *Ericameria* sp.
Erythraphycus argyrocomus Compere, 1947. Calif. Univ. Pubs., Ent. 8: 8. ♂ ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 84–86, 88.

bifasciatus (Timberlake), n. comb. N. H. Host: *Phenacoccus* sp. on apple.
Pseudococcobius bifasciatus Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 566. ♂ ♀.
Taxonomy: Compere, 1939. Calif. Univ. Pubs., Ent. 7: 61.

brunneus Howard. N. Y., N. J. Host: *Aulacaspis rosae* (Bouché).
Aphycus brunneus Howard, 1885. U. S. Dept. Agr. Div. Ent. Bul. 5: 17, 31, 36. ♀.
Aphycus bruneus Dalla Torre, 1898. Cat. Hym., v. 5, p. 251. Emend.

californicus Howard. Pa., Md., Calif. Host: *Lecanium nigrofasciatum* Perg.
Aphycus californicus Howard, 1898. U. S. Natl. Mus. Proc. 21: 245. ♀.

calvus (Compere). Calif.
Erythraphycus calvus Compere, 1947. Calif. Univ. Pubs., Ent. 8: 11. ♀.

ceroplastis Howard. ?Fla., N. Mex. Hosts: ?*Ceroplastes floridensis* Comst.; *C. irregularis* Ckll.; *C.* sp. on *Artemisia*.
Aphycus ceroplastis Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 18. ♂ ♀.

clauseni (Timberlake), n. comb. Calif. Hosts: *Amonostherium lichtensioides* (Ckll.); ?*A.* sp. on cactus; *Eriococcus adenostomae* Ehrh.; *E. palustris* Dodds.
Pseudococcobius clauseni Timberlake, 1918. Calif. Univ. Pubs., Ent. 1: 358. ♂.
Biology: Dodds, 1923. Jour. Ent. and Zool. 15: 5.

cockerelli Howard. N. Mex. Host: *Lecanium* sp. on osage orange.
Aphycus cockerelli Howard, 1898. U. S. Natl. Mus. Proc. 21: 243. ♀.

coquilletti Howard. Utah, Calif. Host: *Pulvinaria bigeloviae* Ckll.
Aphycus coquilletti Howard, 1898. U. S. Natl. Mus. Proc. 21: 244. ♀.

eriococci Timberlake. Utah, Calif. Host: *Eriococcus quercus* (Comst.).
Aphycus eriococci Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 631. ♀.

eruptor Howard. Va., Fla. Host: ?*Ceroplastes* sp.
Aphycus eruptor Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 364. ♂ ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 115.

flammeus (Compere), n. comb. Calif. Host: *Lecanium quercifex* Fitch.
Metaphycus flammeus Compere, 1947. Calif. Univ. Pubs., Ent. 8: 13. ♀ ♂.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 95.

flavus Howard. N. Y., Md., Fla., Tex. Hosts: *Coccus pseudomagnoliarum* (Kuw.); *Lepidosaphes gloverii* (Pack.); *Pulvinaria acericola* (W. and R.); *Tachardia* sp.; *Toumeyella liriodendri* (Gmel.).
Aphycus flavus Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 365. ♀.

fumipennis (Timberlake), n. comb. Calif. Hosts: *Eriococcus* sp.; *Phenacoccus solani* Ferris; *Pseudococcus solani* (Ckll.).
Pseudococcobius fumipennis Timberlake, 1918. Calif. Univ. Pubs., Ent., p. 356. ♂ ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 93–94.

fuscipennis Howard. Calif. Host: *Lecanium corni* Bouché.
Aphycus fuscipennis Howard, 1898. U. S. Natl. Mus. Proc. 21: 241. ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 115.
Taxonomy: Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 597–599.

hederaceus (Westwood). Europe, ?N. Y. Host: *Pulvinaria acericola* (W. and R.).
Encyrtus hederaceus Westwood, 1837. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 10: 441. ♀.
Taxonomy: Howard, 1900. U. S. Dept. Agr. Div. Ent. Bul. 22 (n. s.): 23.—Mercet, 1921. Fauna Ibérica, Himen., Encirtidos, pp. 203–204. ♂ ♀.

helvolus Compere. Calif. Hosts: *Coccus hesperidum* (L.); *C. pseudomagnoliarum* (Kuw.); *Lecanium corni* Bouché; *Saissetia hemisphaerica* (Targ.); *S. nigra* (Nietn.); *S. oleae* (Bern.).
Aphycus helvolus Compere, 1926. Calif. Univ. Pubs., Ent. 4: 25. ♂ ♀.
Biology: Smith and Compere, 1928. Calif. Univ. Pubs., Ent. 4: 242, 274.—Flanders, 1942. Jour. Econ. Ent. 35: 690–698.—Woglum, LaFollette, Landon, and Lewis, 1947. Jour. Econ. Ent. 40: 819.
Morphology: Flanders, 1942. Ent. Soc. Amer. Ann. 35: 253, 262–265.

howardi Cockerell. N. Mex., Calif. Hosts: *Eriococcus tinsleyi* Ckll.; *E.* sp. on *Ericameria*.
Aphycus Howardi Cockerell, 1898. Canad. Ent. 30: 276. ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 94–97.
Taxonomy: Compere, 1947. Calif. Univ. Pubs., Ent. 8: 12.

immaculatus Howard. Calif. Host: *Aonidiella aurantii* (Mask.).
Aphycus immaculatus Howard, 1894. U. S. Dept. Agr. Insect Life 6: 235. ♂.

johnsoni Howard. Ont., Que., Pa., Ill. Hosts: *Kermes* on ash; *Lecanium corni* Bouché; *L. nigrofasciatum* Perg.
Aphycus johnsoni Howard, 1898. U. S. Natl. Mus. Proc. 21: 244. ♀.

kincaidi (Timberlake). Wash. Host: *Lecanium coryli* (L.).
Metaphycus kincaidi Timberlake, 1929. Pan-Pacific Ent. 6: 43. ♂ ♀.

kingi Timberlake. Kans. Host: *Pulvinaria* sp.
Aphycus kingi Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 613. ♀.

lecanii Howard. Calif. Hosts: *Lecanium corni* Bouché; *L. pubescens* Ehrh.; *L. quercifex* Fitch; *Physokermes insignicola* (Craw.).
Aphycus lecanii Howard, 1898. U. S. Natl. Mus. Proc. 21: 242. ♀ (♂ misdet.).
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 115.

lounsburyi Howard. Mass., Calif. Hosts: *Saissetia oleae* (Bern.); *Cheiloneurus inimicus* Comp.
***Aphycus* lounsburyi** Howard, 1898. U. S. Natl. Mus. Proc. 21: 244. ♀.
Biology: Clausen, 1942. Jour. Econ. Ent. 35: 748.—Flanders, 1942. Ent. Soc. Amer. Ann. 35: 252, 262.—Flanders, 1942. Jour. Econ. Ent. 35: 696.—Flanders, 1943. Jour. Econ. Ent. 36: 922–925.—Flanders, 1944. Jour. Econ. Ent. 37: 409.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 95, 97–99. Woglum, LaFollette, Landon, and Lewis, 1947. Jour. Econ. Ent. 40: 819.
Morphology: Compere, 1947. Calif. Univ. Pubs., Ent. 8: 8–9.
Taxonomy: Smith and Compere, 1928. Calif. Univ. Pubs., Ent. 4: 275–292.

luteolus Timberlake. Calif. Hosts: *Coccus hesperidum* L.: *C. pseudomagnoliarum* (Kuw.); *Lecanium corni* Bouché; *Saissetia oleae* (Bern.).
Aphycus luteolus Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 636. ♂ ♀.
Biology: Flanders, 1942. Jour. Econ. Ent. 35: 263.—Flanders, 1942. Jour. Econ. Ent. 35: 832–833.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 96, 99–100.—Woglum, LaFollette, Landon, and Lewis, 1947. Jour. Econ. Ent. 40: 819–820.
Taxonomy: Smith and Compere, 1928. Calif. Univ. Pubs., Ent. 4: 274-275.

maculipennis Timberlake. Mass. Host: *Lecanium corni* Bouché.
Aphycus maculipennis Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 593. ♂ ♀.

maculipes Howard. Ont., Mass., S. C., Ohio, Ill. Hosts: *Coccus hesperidum* L.; *Lecanium corni* Bouché; *L.* sp. on *Quercus nigra; L.* sp.
Aphycus maculipes Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 18, 41. ♂ ♀.
Aphycus flaviceps Howard, 1898. U. S. Natl. Mus. Proc. 21: 246. ♀.

matteolus (Compere). Calif.
Erythraphycus matteolus Compere, 1947. Calif. Univ. Pubs., Ent. 8: 10. ♂.

mexicanus Howard. Pa., La. Hosts: *Ceroplastes cirripediformis* Comst.
Aphycus mexicanus Howard, 1898. U. S. Natl. Mus. Proc. 21: 247. ♀.

oregonensis Howard. Oreg. Hosts: *Pulvinaria* sp. on Oregon flowering currant; *P.* sp. on *Ribes.*
Aphycus oregonensis Howard, 1898. U. S. Natl. Mus. Proc. 21: 246. "♀"= ♂.

physokermis Timberlake. Calif. Host: *Physokermes insignicola* (Craw).
Aphycus physokermis Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 606. ♂ ♀.

psyllidis (Compere), n. comb. Calif. Host: *Paratrioza cockerelli* (Sulc).
Metaphycus psyllidis Compere, 1944. Pan-Pacific Ent. 19: 71. ♂ ♀.

pulvinariae Howard. Widespread in U. S. and Canada. Hosts: *Lecanium corni* Bouché; *L. fletcheri* Ckll.; *L. nigrofasciatum* Perg.; *L.* sp. on Japanese persimmon; *L.* sp. on wild goose plum; *Pulvinaria acericola* (W. and R.); *P. vitis* (L.); *P.* sp. on plum; *P.* sp. on willow; *Saissetia nigra* (Nietn.).
Aphycus pulvinariae Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 238. ♀.

punctipes (Dalman). Europe; ?No. Amer.
Encyrtus punctipes Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 154.

rileyi Timberlake. Ont., N. Y., Ohio, Mo., Tex. Hosts: *Lecanium corni* Bouché; *L.* sp. on Japanese persimmon.
Aphycus rileyi Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 600. ♂ ♀.

schwarzi Timberlake. Ariz.
Aphycus schwarzi Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 599. ♀.

similis Timberlake. Tex. Host: *Lecanium* sp. on Japanese persimmon.
Aphycus similis Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 605. ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 115.

stanleyi (Compere), n. comb. Calif. Hosts: *Coccus hesperidum* L.; *C. pseudomagnoliarum* (Kuw.); *Eucalymnatus tessellatus* (Sign.); *Saissetia oleae* (Bern.).
Metaphycus stanleyi Compere, 1940. Bul. Ent. Res. 31: 10, 11, 20. ♂ ♀.
Biology: Flanders, 1940. *In* Compere, Hilgardia 13: 418.—Flanders, 1942. Jour. Econ. Ent. 35: 833.
Taxonomy: Compere, 1940. Hilgardia 13: 417–419.

stomachosus Girault. Mass. to Va. and Ill. Host: *Lecanium nigrofasciatum* Perg.
Aphycus stomachosus Girault, 1909. Psyche 16: 77. ♂ ♀.

subfasciatus Timberlake. Kans. Host: *Lecanium corni* Bouché.
Aphycus subfasciatus Timberlake, 1916. U. S. Natl. Mus. Proc. 50: 601. ♂ ♀.

Genus APHYCOIDEUS Williams

Aphycoideus Williams, 1916. Psyche 23: 153.
Type: ***Aphycoideus io*** Williams. Monob.

io Williams. Mass. Host: *Malacosoma americanum* (F.).
Aphycoideus io Girault (!) Williams, 1916. Psyche 23: 153.
Aphycoideus io Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 5.

Genus BLASTOTHRIX Mayr

Blastothrix Mayr, 1876 (1875). Zool.-Bot. Gesell. Wien Verh. 25: 697.
Type: ***Encyrtus sericeus*** Dalman. Desig. by Ashmead, 1900.
Anagyropsis Girault, 1917. Insecutor Inscitiae Menstruus 5: 136.
Type: ***Anagyrus purpureus*** Girault. Orig. desig.

adjutabilis Howard. Va., Fla. Hosts: *Lecanium* spp. on *Crataegus*, on Japanese persimmon, and on oak.
Blastothrix adjutabilis Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 365. ♀.

incerta Howard. Fla. Hosts: ?*Lecanium* sp. on mesquite.; *L.* sp.
Blastothrix incerta Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 366. ♂.

longipennis Howard. Ont., N. Y., Mass., D. C., Mich., Wis., Minn., N. Mex., Calif., B. C. Hosts: *Kermes pubescens* Bogue; *Lecanium corni* Bouché; *L. fletcheri* Ckll.; *L. pruinosum* Coq.; *L. quercifex* Fitch.
?***Encyrtus sericeus*** Dalman, 1820. Svenska Vetensk. Akad. Handl. 357. ♀.
Blastothrix longipennis Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 366. ♀.
Biology: Glendenning, 1931. Brit. Columbia Ent. Soc. Proc. 28: 30–31.—Lyne, 1934. Calif. Dept. Agr. Monthly Bul. 23: 232.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 67–68.
Taxonomy: Girault, 1915. Ent. Soc. Amer. Ann. 8: 274.

sericea (Dalman). Que., N. H., ?Conn., Pa., La., B. C. Hosts: *Kermes* sp. on ash; *Lecanium coryli* (L.); *L. nigrofasciatum* Perg.; ?*Baccha fascipennis* Wied.
Encyrtus sericeus Dalman, 1820. Svenska Vetensk. Akad. Handl. 357. ♀.
?***Blastothrix longipennis*** Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 366. ♀.
Biology: Silvestri, 1919. Lab. Zool. e Agr. Portici Bol. 13: 163–173.—Glendenning, 1933. Canad. Ent. 65: 169–171.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 68–69.
Taxonomy: Girault, 1915. Ent. Soc. Amer. Ann. 8: 274.—Silvestri, 1919. Lab. Zool. e Agr. Portici Bol. 13: 163–173.—Mercet, 1921. Fauna Ibérica, Himen. Encirtidos, pp. 249–251.

Genus OOENCYRTUS Ashmead

Ooencyrtus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 338, 345, 381.
Type: ***Encyrtus clisiocampae*** Ashmead. Orig. desig.
Schedius Howard, 1910. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 19: 2.
Type: ***Schedius kuvanae*** Howard. Monob.

Members of this genus attack only the egg stage of their host.

anabrivorus Gahan. Wyo. Host: *Anabrus simplex* Hald.
Ooencyrtus anabrivorus Gahan, 1942. U. S. Natl. Mus. Proc. 92: 40. ♂ ♀.

anasae (Ashmead). N. C., Fla., La., Kans. Hosts: *Solubea pugnax* (F.); *Anasa tristis* (Deg.).
Encyrtus anasae Ashmead, 1887. U. S. Dept. Agr. Div. Ent. Bul. 14: 23. ♀.
Biology: Ingram, 1927. U. S. Dept. Agr. Farmers' Bul. 1543: 4.—Douglas and Ingram, 1942. U. S. Dept. Agr. Cir. 632: 6.

californicus Girault. Calif. Host: *Anasa tristis* (Deg.).
Oenocyrtus (!) ***californicus*** Girault, 1917. Descr. Stellarum Nov. p. 22. ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 104–105.

clisiocampae (Ashmead). N. Y., Mass., Conn., N. J., Ohio, Ind., Ill., Minn. Hosts: *Malacosoma americanum* (F.); *M. disstria* Hbn.
Encyrtus clisiocampae Ashmead, 1893. Ohio Agr. Expt. Sta. Tech. Ser. Bul. 1: 163. ♀.
Biology: Hodson, 1939. Ent. Soc. Amer. Ann. 32: 131–136.

johnsoni (Howard). Md., Va., N. C., Fla., Tex., Calif. Hosts: *Arilus cristatus* (L.); *Chlorochroa sayi* Stål; *Murgantia histrionica* (Hahn); coccinellid eggs.
Encyrtus Johnsoni Howard, 1898. Canad. Ent. 30: 18. ♂ ♀.
Biology: Drake, 1920. Fla. State Plant Bd. Quart. Bul. 4: 81.—Essig, 1922. Jour. Ent. and Zool. 14: 76.—White and Brannon, 1933. U. S. Dept. Agr. Farmers' Bul. 1712:5.—Maple, 1937. Ent. Soc. Amer. Ann. 30: 123–154. —Huffaker, 1941. Jour. Econ. Ent. 34: 117.—DeBach, 1942. Jour. Econ. Ent. 35: 787.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 105–107.

kuwanai (Howard), emend. New England. Hosts: *Nygmia phaeorrhoea* (Donov.); *Porthetria dispar* (L.); *Stilpnotia salicis* (L.); *Apanteles melanoscelus* (Ratz.).
Schedius kuvanae Howard, 1910. U. S. Dept. Agr. Bur. Ent. Tech. Bul. 19: 3. ♂ ♀.
Biology: Howard and Fiske, 1911. U. S. Dept. Agr. Bur. Ent. Bul. 91: 86, 176–188, 307.—Crossman, 1925. Jour. Agr. Res. 30: 643–675.—Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 25.—Burgess and Crossman, 1929. U. S. Dept. Agr. Tech. Bul. 86: 31–38.—Parker, 1933. Jour. Agr. Res. 46: 23–34.—Lloyd, 1935. Nature 135: 472–473.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 107–109.

moneilemae Gahan. Tex. Host: *Moneilema crassa* Lec.
Ooencyrtus moneilemae Gahan, 1925. Ent. Soc. Wash. Proc. 27: 167. ♂ ♀.

Genus APHIDENCYRTUS Ashmead

Aphidencyrtus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 340, 347, 398.
Type: (***Encyrtus aphidiphagus*** Ashmead) = [***Encyrtus***] ***aphidivorus*** (Mayr). Orig. desig.

aphidivorus (Mayr). N. Y. to Conn., Va. and Ind.; Fla., La., Idaho. Hosts: *Amphorophora solani* (Thos.); *Anuraphis bakeri* (Cowen); *Aspidaphis aquatica* (G. and B.); *Brevicoryne brassicae* (L.); *Macrosiphum cornelli* Patch; *M. granarium* (Kby.); *M. liriodendri* (Monell); *Myzus persicae* (Sulz.); *Siphonophora avenae* (F.); *Toxoptera graminum* (Rond.); *Trialeurodes vaporariorum* (Westw.); *Aphelinus jucundus* Gahan; *A. sanborniae* Gahan; *A. semiflavus* How.; *A.* sp.; *Aphidius testaceipes* (Cress.); *A.* spp.
Encyrtus aphidivorus Mayr, 1876 (1875). Zool.-Bot. Gesell. Wien. Verh. 25: 712, 724. ♂ ♀.
Eupelmus (!) ***schizoneurae*** Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xvi. ♂ ♀.

Encyrtus aphidiphagus Ashmead, 1887. U. S. Dept. Agr. Div. Ent. Bul. 14: 14. ♀.
Encyrtus? megourae Ashmead, 1887. U. S. Dept. Agr. Div. Ent. Bul. 14: 19. ♂ ♀.
Encyrtus Websteri Howard, 1890. U. S. Dept. Agr. Insect Life 2: 247. ♂ ♀.
Biology: Griswold, 1929. Ent. Soc. Amer. Ann. 22: 445.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 61–62.
Taxonomy: Gahan, 1930. U. S. Natl. Mus. Proc. 77 (8): 6.

lachni (Ashmead). Fla. Host: *Lachnus australis* Ashm.
Eupelmus (!) ***lachni*** Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xvi. ♀.
Taxonomy: Gahan, 1927. U. S. Natl. Mus. Proc. 71 (4): 18.

Genus SYRPHOPHAGUS Ashmead

Syrphophagus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 340, 346, 397.
Type: (***Encyrtus mesograptae*** Ashmead)=[***Pteromalus***] ***quadrimaculatae*** (Ashmead). Orig. desig.

4-maculatae (Ashmead). S. C., Fla., Miss. Hosts: *Syrphus quadrimaculatus* Ashm.; *S. ribesii* (L.); *Toxomerus polita* (Say).
Pteromalus 4-maculatae Ashmead, 1881. Canad. Ent. 13: 171. ♂ ♀.
Encyrtus mesograptae Ashmead, 1896 (nec 1887). Amer. Ent. Soc. Trans. 23: 232. ♀.
Taxonomy: Girault, 1916. Canad. Ent. 48: 344.

smithi Kamal. Calif. Hosts: *Syrphus nitens* Zett.; *S. opinator* O. S.
Syrphophagus smithi Kamal, 1926. Canad. Ent. 58: 284. ♀.
Biology: Kamal, 1939. Egypt Min. Agr. Tech. and Sci. Serv. Ent. Sect. Bul. 207: 34 46, 48. ♀.

vectius (Walker). Fla.
Encyrtus Vectius Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 21. ♂.

Genus PSEUDENCYRTUS Ashmead

Pseudencyrtus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 340, 346, 396.
Type: ***Encyrtus cecidomyiae*** Howard. Orig. desig.

cecidomyiae (Howard). N. Y., Conn., Va. Host: *Phytophaga rigidae* (O. S.).
Encyrtus cecidomyiae Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 16. ♂ ♀.
Taxonomy: Girault, 1916. Ent. News 27: 402.

pleuralis (Ashmead), n. comb. Ohio. Host: ?*Atomaria* sp.
Encyrtus pleuralis Ashmead, 1893. Ohio Agr. Expt. Sta. Tech. Ser. Bul. 1: 163. ♀.

Genus HOLCENCYRTUS Ashmead

Holcencyrtus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 339, 346, 394.
Type: ***Aphycus niger*** Ashmead. Monob.

niger (Ashmead). Fla.
Aphycus niger Ashmead, 1888. Ent. Amer. 4: 15. ♂.

physokermis Girault. Wis. Host: *Physokermes piceae* (Schrank).
Holcencyrtus physokermis Girault, 1916. Ent. News 27: 226. ♂ ♀.

Genus CHEILONEURUS Westwood

Cheiloneurus Westwood, 1833. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 3: 343.
Type: ***Encyrtus elegans*** Dalman. Monob.
Chiloneurus Foerster, 1856. Hym. Stud., v. 2, p. 50. Emend.
Cristatithorax Girault, 1911. Canad. Ent. 43: 169.
Type: ***Cristatithorax pulcher*** Girault. Monob.
Revision: Gahan, 1913. Ent. Soc. Amer. Ann. 7: 247.

albicornis Howard. Ont., N. H. to S. C., La., Mo., Iowa, Wis., Colo. Hosts: *Kermes* sp. on oak; *Lecanium caryae* Fitch; *L. corni* Bouché; *L. fletcheri* Ckll.; *L. nigrofasciatum* Perg.; *Physokermes piceae* (Schrank); *Pulvinaria acericola* (W. and R.); *P. vitis* (L.); *P.* sp. on poison ivy.

Chiloneurus albicornis Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 363. ♀.

Taxonomy: Girault, 1916. Ent. Soc. Amer. Ann. 9: 300. ♂ ♀.

cupreicollis Ashmead. Fla. Host: *Lecanium* sp. on oak.

Chiloneurus cupreicollis Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 131. ♀.

cushmani Crawford. Va. Host: *Kermes* sp.

Chiloneurus cushmani Crawford, 1911. Ent. Soc. Wash. Proc. 13: 126. ♂ ♀.

dubius Howard. Mass., Mo., Wis. Hosts: *Kermes* sp., *Lecanium* sp. from dwarf mountain pine; *L.* sp. from Scotch pine.

Chiloneurus dubius Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 17, 42. ♂.

elegans (Dalman). N. Y., N. J., Pa., Md., Va.; Europe. Hosts: *Phytophaga destructor* (Say); *Platygaster vernalis* (Myers).

Encyrtus elegans Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 151. ♀.

Biology: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 60–64.—Hill, Pinckney, and Udine, 1939. U. S. Dept. Agr. Tech. Bul. 689: 5, 12.

Morphology: Hill and Pinckney, 1940. U. S. Dept. Agr. Tech. Bul. 715: 5–6, 11–13.

inimicus Compere. Calif. Hosts: *Aphycus lounsburyi* How.; *A. physokermis* Timb.

Cheiloneurus inimicus Compere, 1925. Calif. Univ. Pubs., Ent. 3: 296. ♂ ♀.

Taxonomy: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 71.

lineascapus Gahan. Md., La., Calif. Hosts: *Kermes* sp. on lilac; *K.* sp. on oak; *Saissetia oleae* (Bern.); *Aphycus lounsburyi* How.

Cheiloneurus lineascapus Gahan, 1910. Canad. Ent. 42: 207. ♀.

Biology: Smith, 1933. Ent. Soc. Amer. Ann. 26: 525.

Morphology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 115.

Taxonomy: Smith and Compere, 1928. Calif. Univ. Pubs., Ent. 4: 242, 271–272.

noxius Compere. Calif. Hosts: *Saissetia oleae* (Bern.); *Aphycus lounsburyi* How.

Cheiloneurus noxius Compere, 1925. Calif. Univ. Pubs., Ent. 3: 296, 302. ♀.

Biology: Flanders, 1940. Ent. Soc. Amer. Ann. 33: 252.—LePelley, 1937. Bul. Ent. Res. 28: 181–183.

Morphology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 71.

Taxonomy: Smith and Compere, 1928. Calif. Univ. Pubs., Ent. 4: 242, 272–274.

pulcher (Girault), n. comb. Ill. Host: *Kermes pubescens* Bogue.

Cristatithorax pulcher Girault, 1911. Canad. Ent. 43: 170. ♀.

swezeyi Ashmead. Conn., Ohio. Hosts: *Ormenis septentrionalis* (Spin.); *Psilodryinus typhlocybae* (Ashm.).

Cheiloneurus swezeyi Ashmead, 1903. Ent. News 14: 193. ♂ ♀.

Biology: Swezey, 1903. Ohio Nat. 3: 446–447.

Genus ACHRYSOPOPHAGUS Girault

Achrysopophagus Girault, 1915. Queensland Mus. Mem. 4: 89.
Type: ***Achrysopophagus oviductus*** Girault. Orig. desig.

Revision: Mercet, 1928. Eos 5: 359–364.

americanus Girault. D. C.

Achrysopophagus americanus Girault, 1917. Descr. Stellarum Nov., p. 16. ♀.

dactylopii (Howard). D. C., N. Mex., Minn. Hosts: *Phenacoccus cevalliae* Ckll.; *Pseudococcus citri* (Risso).

Chiloneurus dactylopii Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 17. ♂ ♀.

modestus Timberlake. Calif. Hosts: *Pseudococcus maritimus* (Ehrh.); *Anagyrus yuccae* (Coq.); *Zarhopalus corvinus* (Gir.).

Achrysopophagus modestus Timberlake, 1924. Calif. Univ. Pubs., Ent. 3: 240. ♀.

Biology: Clausen, 1924. Calif. Univ. Pubs., Ent. 3: 257–266, 284–286.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 55.

Genus CHILONEURINUS Mercet

Chiloneurinus Mercet, 1921. Fauna Ibérica, Himen. Encirtidos, p. 646.
Type: ***Chiloneurus microphagus*** Mayr. Monob.

microphagus (Mayr). N. Y., Conn., N. J., Va., S. C., Calif. Hosts: *Aspidiotus juglans-regiae* Comst.; *A. perniciosus* Comst.; *Lecanium nigrofasciatum* Perg.; *Lepidosaphes ulmi* (L.).
Chiloneurus microphagus Mayr, 1876 (1875). Zool.-Bot. Gesell. Wien. Verh. 25: 745, 746. ♀.
Chiloneurus diaspidinarum Howard, 1894. U. S. Dept. Agr. Insect Life 7: 256. ♀.
Aphidencyrtus aspidioti Girault, 1915. Ent. Soc. Amer. Ann. 8: 283, 284. ♀.
Biology: Griswold, 1925. N. Y. (Cornell) Agr. Expt. Sta. Mem. 93: 44–47.
Taxonomy: Gahan, 1924. U. S. Natl. Mus. Proc. 65 (4): 1.

Genus CHRYSOPOPHAGUS Ashmead

Chrysopophagus Ashmead, 1894. U. S. Dept. Agr. Insect Life 7: 245, 246.
Type: ***Chrysopophagus compressicornis*** Ashmead. Monob.
Saronotum Perkins, 1906. Hawaii. Sugar Planters' Assoc. Expt. Sta. Div. Ent. Bul. 1: 259.
Type: ***Saronotum australiae*** Perkins. Desig. by Gahan and Fagan, 1923.

americanus (Perkins). Ohio. Host: Dryinid.
Saronotum americanum Perkins, 1906. Hawaii. Sugar Planters' Assoc. Expt. Sta. Div. Ent. Bul. 1: 260. ♀.

amplicornis (Gahan). Tex. Host: *Eriococcus* sp. on *Bouteloua*.
Cheiloneurus amplicornis Gahan, 1914. Ent. Soc. Amer. Ann. 7: 247. ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 115.

banksi Howard. Tex., N. Mex.
Chrysopophagus banksi Howard, 1898. U. S. Natl. Mus. Proc. 21: 247. ♀.

compressicornis Ashmead. N. C., S. C., Miss., La., Mo., Iowa, Calif. Hosts: *Chrysopa californica* Coq.; *C. majuscula* Banks; *C. plorabunda* Fitch; *C. rufilabris* Burm.
Chrysopophagus compressicornis Ashmead, 1894. U. S. Dept. Agr. Insect Life 7: 246. ♂ ♀.
Biology: Clancy, 1946. Calif. Univ. Pubs., Ent. 7: 432–440.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 72.

kansensis Girault. Kans.
Chrysopophagus kansensis Girault, 1917. U. S. Natl. Mus. Proc. 53: 447. ♀.

Genus CERAPTEROCERUS Westwood

Cerapterocerus Westwood, 1833. Mag. Nat. Hist. 6: 495.
Type: ***Cerapterocerus mirabilis*** Westwood. Monob.
Telegraphus Ratzeburg, 1848. Ichn. d. Forstins., v. 2, p. 152.
Type: (***Telegraphus maculipennis*** Ratzeburg)=***Cerapterocerus mirabilis*** Westwood. Monob.

floridanus Ashmead. Fla.
Cerapterocerus floridanus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 190. ♂.

Genus HABROLEPIS Foerster

Habrolepis Foerster, 1856. Hym. Stud., v. 2, pp. 34, 38.
Type: (***Encyrtus nubilipennis*** Walker)=[***Encyrtus***] ***dalmani*** (Westwood). Orig. desig.

dalmani (Westwood). Mass., Conn., Ohio. Hosts: *Asterolecanium quercicola* (Bouché); *A. variolosum* (Ratz.); *Lepidosaphes ulmi* (L.).
Encyrtus Dalmanni Westwood, 1837. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 10: 440.
Habrolepis Dalmani Mayr, 1876 (1875). Zool.-Bot. Gesell. Wien Verh. 75: 751. ♂ ♀. Emend.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 90.

rouxi Compere. Calif. Host: *Aonidiella aurantii* Mask. on citrus.
Habrolepis rouxi Compere, 1936. Bul. Ent. Res. 27: 493–496. ♀.
Biology: Flanders, 1942. Ecology 23: 120.—Flanders, 1944. Jour. Econ. Ent. 37: 441.—Flanders, 1945. Amer. Nat. 79: 126, 131, 133–136.—Flanders, 1946. Pan-Pacific Ent. 22: 35.

Genus ANABROLEPIS Timberlake

Anabrolepis Timberlake, 1920. Hawaii. Ent. Soc. Proc. 4: 131.
Type: ***Anabrolepis extranea*** Timberlake. Orig. desig.

zetterstedtii (Westwood). Maine to Ohio and Mich.; B. C. Hosts: *Aspidiotus ostreaeformis* Curt.; *A. perniciosus* Comst.; *Lepidosaphes ulmi* (L.).
Encyrtus Zetterstedtii Westwood, 1837. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 10: 440.
Taxonomy: Gahan, 1924. U. S. Natl. Mus. Proc. 65 (4): 2.

Genus ADELENCYRTUS Ashmead

Adelencyrtus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 341, 400.
Type: ***Encyrtus chionaspidis*** Howard. Orig. desig.
Epiencyrtoides Girault, 1915. Queensland Mus. Mem. 4: 108.
Type: ***Epiencyrtoides quadridentatus*** Girault. Orig. desig.

aulacaspidis (Brèthes). Ill., Calif. Host: *Aulacaspis rosae* (Bouché).
Prionomitus aulacaspidis Brèthes, 1914. An. de Zool. Aplicada 1: 29. ♀.
Taxonomy: Mercet, 1921. Fauna Ibérica, Himen. Encirtidos, pp. 294–297, 698.

Genus CERAPTROCEROIDEUS Girault

Ceraptroceroideus Girault, 1916. Psyche 23: 47.
Type: ***Ceraptroceroideus cinctipes*** Girault. Monob. and orig. desig.

cinctipes Girault. Kans. Host: *Rhizaspidiotus dearnessi* Ckll.
Ceraptroceroideus cinctipes Girault, 1916. Psyche 23: 47. ♂ ♀.

Genus CHRYSOPLATYCERUS Ashmead

Rileya Howard, 1888. *In* Smith, Ent. Amer. 4: 80. Preocc.
Type: ***Rileya splendens*** Howard. Monob.
Chrysoplatycerus Ashmead, 1889. Canad. Ent. 21: 38. N. name.
Revision: Timberlake, 1922. U. S. Natl. Mus. Proc. 61 (2): 1–10.

ferrisi Timberlake. Calif. Host: *Pseudococcus adenostomae* Ferris.
Chrysoplatycerus ferrisi Timberlake, 1922. U. S. Natl. Mus. Proc. 61 (2): 7. ♂ ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 115.

splendens (Howard). Que. (greenhouses), Calif. Hosts: *Pseudococcus adonidum* (L.); *P. citri* (Risso); *P. maritimus* (Ehrh.); *P. ryani* (Coq.).
Rileya splendens Howard, 1888. *In* Smith, Ent. Amer. 4: 80.
Biology: Clausen, 1924. Calif. Univ. Pubs., Ent. 3: 256–266, 279.—Clancy, 1944. Jour. Econ. Ent. 37: 450.—Maple. 1947, Calif. Univ. Pubs., Ent. 8: 115.

Genus ANICETUS Howard

Anicetus Howard, 1896. U. S. Natl. Mus. Proc. 18: 639.
Type: ***Anicetus ceylonensis*** Howard. Monob.
Asteropaeus Howard, 1898. U. S. Natl. Mus. Proc. 21: 231. N. syn.
Type: ***Asteropaeus primus*** Howard. Monob.
Habrolepopterygis Girault, 1915. Queensland Mus. Mem. 4: 86.
Type: ***Habrolepopterygis felix*** Girault. Monob.
Paraceraptrocerus Girault, 1920. U. S. Natl. Mus. Proc. 58: 184.
Type: ***Paraceraptrocerus africanus*** Girault. Monob.

annulatus Timberlake. Calif.
Anicetus annulatus Timberlake, 1919. Hawaii. Ent. Soc. Proc. 4: 227. ♂ ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 60.

Genus ZARHOPALUS Ashmead

Zarhopalus Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 342, 406.
Type: ***Zarhopalus sheldoni*** Ashmead. Orig. desig.
Anagyrella Girault, 1915. N. Y. Ent. Soc. Jour. 23: 168.
Type: ***Anagyrella corvina*** Girault. Monob.
Revision: Timberlake, 1924. Calif. Univ. Pubs., Ent. 3: 235–236.

corvinus (Girault). Que., Calif. Hosts: *Pseudococcus maritimus* (Ehrh.); *P.* sp.
Anagyrella corvina Girault, 1915. N. Y. Ent. Soc. Jour. 23: 169. ♀.
Biology: Clausen, 1924. Calif. Univ. Pubs., Ent. 3: 256–271.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 55, 115.

inquisitor (Howard). Fla. Host: *Pseudococcus citri* (Risso).
Encyrtus inquisitor Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 367. ♀.

sheldoni Ashmead. N. Y., Calif. Host: *Pseudococcus maritimus* (Ehrh.).
Zarhopalus sheldoni Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 406. ♀.
Biology: Clausen, 1924. Calif. Univ. Pubs., Ent. 3: 257–265.—Clancy and Pollard, 1947. Jour. Econ. Ent. 40: 578–579.

Genus STEMMATOSTERES Timberlake

Stemmatosteres Timberlake, 1918. Calif. Univ. Pubs., Ent. 1: 352.
Type: ***Stemmatosteres apterus*** Timberlake. Monob.

apterus Timberlake. Calif. Host: *Pseudococcus timberlakei* Ckll.
Stemmatosteres apterus Timberlake, 1918. Calif. Univ. Pubs., Ent. 1: 354. ♂ ♀.
Biology: Maple, 1947. Calif. Univ. Pubs., Ent. 8: 109, 114.

Genus HELEGONATOPUS Perkins

Helegonatopus Perkins, 1906. Hawaii. Sugar Planters' Assoc. Expt. Sta. Div. Ent. Bul. 1: 257.
Type: ***Helegonatopus pseudophanes*** Perkins. Monob.

pseudophanes Perkins. Ohio. Host: *Gonatopus* sp. on allied form.
Helegonatopus pseudophanes Perkins, 1906. Hawaii. Sugar Planters' Assoc. Expt. Sta. Div. Ent. Bul 1: 258. ♀.

Genus COCCOBIUS Ratzeburg

Coccobius Ratzeburg, 1852. Ichn. d. Forstins. v. 3, p. 195.
Type: ***Coccobius annulicornis*** Ratzeburg. Desig. by Gahan and Fagan, 1923.

diaspidis Ashmead. D. C. Host: *Aulacaspis rosae* (Bouché).
Coccobius diaspidis Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 408. ♀.

Genus PSEUDHOMALOPODA Girault

Pseudhomalopoda Girault, 1915. N. Y. Ent. Soc. Jour. 23: 171.
Type: ***Pseudhomalopoda prima*** Girault. Monob.

prima Girault. Fla. Hosts: *Aleurocanthus woglumi* Ashby; *Aonidiella aurantii* (Mask.); *Chrysomphalus aonidum* (L.).
Pseudhomalopoda prima Girault, 1915. N. Y. Ent. Soc. Jour. 23: 171. ♀.
Biology: Griffiths and Stearns, 1947. Fla. Ent. 30: 4–7.

Genus EUSEMION Dahlbom

Eusemion Dahlbom, 1857. Öfvers. Svenska Vetensk. Akad. Förh. 14: 293 (no species).
Type: ***Encyrtus corniger*** Haliday. Included by Thomson, 1875.
Revision: Compere, 1938. Bul. Ent. Res. 29: 320.

californicum Compere. Calif. Hosts: *Coccus hesperidum* L.; *Saissetia oleae* (Bern.); *Aphycus lounsburyi* How.

Eusemion californicum Compere, 1925. Calif. Univ. Pubs., Ent. 3: 296, 304. ♂ ♀.
Biology: Smith, 1933. Ent. Soc. Amer. Ann. 26: 525.—Flanders, 1940. Ent. Soc. Amer. Ann. 33: 252.—Flanders, 1943. Jour. Econ. Ent. 36: 923–924.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 90.

longipennis (Ashmead). Fla., Calif. Hosts: *Lecanium* sp.; *Aphycus flavus* How.; *Microterys flavus* How.
Mira longipennis Ashmead, 1888. Ent. Amer. 4: 17. ♀.
Biology: Timberlake, 1913. Jour. Econ. Ent. 6: 301.

Genus ATROPATES Howard

Atropates Howard, 1898. U. S. Natl. Mus. Proc. 21: 236.
Type: *Atropates collinsi* Howard. Monob.

collinsi Howard. N. Y., Wash. Host: *Pulvinaria vitis* (L.).
Atropates collinsi Howard, 1898. U. S. Natl. Mus. Proc. 21: 236. ♂ ♀.

Genus XANTHOENCYRTUS Ashmead

Xanthoencyrtus Ashmead, 1902. Canad. Ent. 34: 302.
Type: *Xanthoencyrtus nigroclavatus* Ashmead. Monob.
Mirastymachus Girault, 1915. N. Y. Ent. Soc. Jour. 23: 166.
Type: *Mirastymachus europaeus* Girault. Orig. desig.
Scelioencyrtus Girault, 1915. Queensland Mus. Mem. 4: 161.
Type: *Scelioencyrtus nigriclavus* Girault. Orig. desig.
Pholidoceras Mercet, 1918. Soc. Españ. Hist. Nat. Bol. 18: 237.
Type: *Pholidoceras brachyptera* Mercet. Monob.
Revision: Mercet, 1928. Eos. 4: 5–7.

americanus (Girault). D. C.
Mirastymachus americanus Girault, 1915. N. Y. Ent. Soc. Jour. 23: 167. ♀.

nigroclavatus Ashmead. Ind., Ill., S. Dak. Host: Coccid on *Panicum*.
Xanthoencyrtus nigroclavatus Ashmead, 1902. Canad. Ent. 34: 302. ♀.
Biology: Webster, 1903 (1902). Ind. Acad. Sci. Proc. p. 103.

Genus PAURIDIA Timberlake

Pauridia Timberlake, 1919. Hawaii. Ent. Soc. Proc. 4: 206.
Type: *Pauridia peregrina* Timberlake. Monob.

peregrina Timberlake. ?Calif. Hosts: *Pseudococcus kraunhiae* (Kuw.); *P. maritimus* (Ehrh.).
Pauridia peregrina Timberlake, 1919. Hawaii. Ent. Soc. Proc. 4: 208. ♂ ♀.
Biology: Armitage, 1920. Calif. Dept. Agr. Monthly Bul. 9: 446.—Essig, 1931. A Hist. of Ent., p. 361, 389.

Genus PLAGIOMERUS Crawford

Plagiomerus Crawford, 1910. U. S. Natl. Mus. Proc. 38: 89.
Type: *Plagiomerus diaspidis* Crawford. Monob.
Revision: Gahan, 1924. U. S. Natl. Mus. Proc. 65 (4): 1.

cyaneus (Ashmead). Fla.
Comys cyanea Ashmead, 1888. Ent. Amer. 4: 17. ♀.
Taxonomy: Dozier, 1926. Puerto Rico Dept. Agr. Jour. 10: 273–274.

diaspidis Crawford. D. C., N. Mex. Host: *Diaspis echinocacti* (Bouché).
Plagiomerus diaspidis Crawford, 1910. U. S. Natl. Mus. Proc. 38: 90. ♀.

Genus PSYLLEDONTUS Crawford

Psylledontus Crawford, 1910. U. S. Natl. Mus. Proc. 38: 88.
Type: *Psylledontus insidiosus* Crawford. Monob.
Metallonella Girault, 1915. Queensland Mus. Mem. 4: 77.
Type: *Metallonella australiensis* Girault. Orig. desig.

insidiosus Crawford. N. Y. Host: *Psylla pyricola* Foerst.
Psylledontus **insidiosus** Crawford, 1910. U. S. Natl. Mus. Proc. 38: 89. ♂ ♀.

Genus AGROMYZAPHAGUS Gahan

Agromyzaphagus Gahan, 1912. Ent. Soc. Wash. Proc. 14: 6.
Type: *Agromyzaphagus detrimentosus* Gahan. Monob.

detrimentosus Gahan. Md. Host: *Leucopis* sp. probably *nigricornis* Egger.
Agromyzaphagus detrimentosus Gahan, 1912. Ent. Soc. Wash. Proc. 14: 7. ♂ ♀.
Taxonomy: Mercet, 1926. Eos 2: 318–319.

Genus PARACALOCERINUS Girault

Paracalocerinus Girault, 1915. Queensland Mus. Mem. 4: 142.
Type: *Paracalocerinus australiensis* Girault. Monob.
Masia Mercet, 1919. Soc. Espan. Hist. Nat. Bol. 19: 470.
Type: *Masia bifasciatella* Mercet. Monob.

americanus Girault. Kans.
Paracalocerinus americanus Girault, 1916. Ent. News 27: 225. ♀.

marylandia Girault, emend. Md., Ill.
Paracalocerinus marilandia Girault, 1917. Chalcidoidea Nova Marilandensis [1], p. 1. ♀.
Taxonomy: Dozier, 1933. Ent. Soc. Wash. Proc. 35: 94–95.

tertius Girault. Calif.
Paracalocerinus tertius Girault, 1917. Desc. Stellarum Nov., p. 7. ♀.

Genus ECHTHROGONATOPUS Perkins

Echthrogonatopus Perkins, 1906. Hawaii. Sugar Planters' Assoc. Expt. Sta. Div. Ent. Bul. 1: 256.
Type: *Echthrogonatopus exitiosus* Perkins. Desig. by Gahan and Fagan, 1923.

pachycephalus Perkins. Ohio. Host: *Gonatopus* sp. or allied form.
Echthrogonatopus pachycephalus Perkins, 1906. Hawaii. Sugar Planters' Assoc. Expt. Sta. Div. Ent. Bul. 1: 257. ♀.

Genus IXODIPHAGUS Howard

Ixodiphagus Howard, 1907. Ent. News 18: 377.
Type: *Ixodiphagus texanus* Howard. Monob.

texanus Howard. Mass., Minn., Tex., Idaho. Hosts: *Dermacentor variabilis* (Say); *Haemaphysalus leporis-palustris* (Pack.); ?*Ixodes cookei* Pack.; *I. dentatus* Marx, *I. scapularis* Say; *Rhipicephalus sanguineus* (Latr.).
Ixodiphagus texanus Howard, 1907. Ent. News 18: 375. ♀.
Biology: Larson, 1937. Jour. Parasitol. 23: 496–498.—Larson and Green, 1938. Jour. Parasitol. 24: 363–368.—Smith, Cole, and Gouck, 1946. U. S. Dept. Agr. Tech. Bul. 905: 72.
Taxonomy: Gahan, 1934. Ent. Soc. Wash. Proc. 36: 89–97.

Genus HUNTERELLUS Howard

Hunterellus Howard, 1908. Canad. Ent. 40: 240.
Type: *Hunterellus hookeri* Howard. Monob.

hookeri Howard. Mass., S. C., Fla., Tex., Calif., Idaho, Mont. Hosts: *Dermacentor andersoni* Stiles; *D. parumapertus* Neum.; *D. variabilis* (Say); *Haemaphysalis leporis-palustris* (Pack.); *Ixodes dentatus* Marx; *I. muris* B. and S.; *I. scapularis* Say; *Rhipicephalus sanguineus* (Latr.).
Hunterellus Hookeri Howard, 1908. Canad. Ent. 40: 239. ♂ ♀.
Ixodiphagus Caucurtei du Buysson, 1912. Arch. de Parasitol. 15: 246. ♂ ♀.
Biology: Cooley, 1927. Mont. State Bd. Ent. Bien. Rpt. 6: 15–17.—Cooley and Kohls, 1928. Science 67: 656.—Larrousse, King and Wolbach, 1928.

Science 67: 351–353.—Cooley, 1929 (1927-1928). Mont. State Bd. Ent. Bien. Rpt. 7: 10–16; 17–31.—Morton, 1929 (1927-1928). Mont. State Bd. Ent. Bien Rpt. 7: 32–35.—Parker and Butler, 1929 (1927-1928). Mont. State Bd. Ent. Bien. Rpt. 7: 35–38.—Cooley, 1930. Mont. State Bd. Ent. Bien. Rpt. 8: 16–25.—Cooley and Kohls, 1934. Fifth Pacific Sci. Cong. Proc. B 5: 3375-3381.—Bishopp, 1938. U. S. Dept. Agr. Cir. 478: 23.—Smith and Cole, 1943, Jour. Econ. Ent. 36: 569–572.

Taxonomy: Gahan, 1934. Ent. Soc. Wash. Proc. 36: 89–97.

Genus PARALEUROCERUS Girault

Paraleurocerus Girault, 1915. N. Y. Ent. Soc. Jour. 23: 172.
Type: ***Paraleurocerus bicoloripes*** Girault. Monob.

bicoloripes Girault. Mass., Tex. Hosts: *Cameraria caryaefoliella* (Clem.); *Lithocolletis* sp. mining cherry leaf.
Paraleurocerus bicoloripes Girault, 1915. N. Y. Ent. Soc. Jour. 23: 172. ♂ ♀.

Genus EPANUSIA Girault

Epanusia Girault, 1913. Arch. f. Naturgesch. 79A (6): 91.
Type: ***Epanusia bifasciatus*** Girault. Monob.

albiclava Girault. D. C.
Epanusia albiclava Girault, 1916. Psyche 23: 44. ♀.

Genus FORMICENCYRTUS Girault

Formicencyrtus Girault, 1916. Psyche 23: 45.
Type: ***Formicencyrtus thoreauini*** Girault. Monob.

thoreauini Girault. N. Mex. Host: *Dactylopius confusus* (Ckll.).
Formicencyrtus thoreauini Girault, 1916. Psyche 23: 45. ♀.

Genus EPICERCHYSIUS Girault

Epicerchysius Girault, 1915. N. Y. Ent. Soc. Jour. 23: 167.
Type: ***Epicerchysius xanthipes*** Girault. Monob.

xanthipes Girault. Tex.
Epicerchysius xanthipes Girault, 1915. N. Y. Ent. Soc. Jour. 23: 168. ♀.

Genus ZAOMMOENCYRTUS Girault

Zaommoëncyrtus Girault, 1916. Psyche 23: 46.
Type: ***Zaommoëncyrtus submicans*** Girault. Monob.

submicans Girault. Pa. Host: *Alobates pennsylvanica* (Deg.).
Zaommoëncyrtus submicans Girault, 1916. Psyche 16: 46. ♀.

Genus NEBAOCHARIS Girault

Nebaocharis Girault, 1916. Psyche 23: 43.
Type: ***Nebaocharis hemiptera*** Girault. Monob.

hemiptera Girault. Colo.
Nebaocharis hemipterus Girault, 1916. Psyche 23: 43. ♀.

Genus COMPERIELLA Howard

Comperiella Howard, 1906. Ent. News 17: 121.
Type: ***Comperiella bifasciata*** Howard. Monob.
Pseudanusia Girault, 1915. Queensland Mus. Mem. 4: 155.
Type: ***Pseudanusia pia*** Girault. Monob.
Habrolepistia Mercet, 1921. Faune Ibérica. Himen. Encirtidos, p. 668.
Type: ***Habrolepistia cerapterocera*** Mercet. Monob.

Revision: Compere, 1926. Calif. Univ. Pubs., Ent. 4: 44.

bifasciata Howard. Calif. Hosts: *Aonidiella aurantii* (Mask.); *A. citrina* (Coq.); *Chrysomphalus aonidum* (L.).
Comperiella bifasciata Howard, 1906. Ent. News 17: 122. ♀.
Biology: Flanders, 1942. Jour. Econ. Ent. 35: 834–835.—Smith, 1942. Jour. Econ. Ent. 35: 809–812.—Flanders, 1943. Jour. Econ. Ent. 36: 233–235.—Flanders, 1944. Ann. Ent. Soc. Amer. 37: 365.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 74, 76.—Woglum, LaFollette, Landon, and Lewis, 1947. Jour. Econ. Ent. 40: 820.

Genus COCCIDOXENUS Crawford

Coccidoxenus Crawford, 1913. U. S. Natl. Mus. Proc. 45: 248.
Type: ***Coccidoxenus portoricensis*** Crawford. Monob.
Tetracnemella Girault, 1915. Queensland Mus. Mem. 4: 170.
Type: ***Tetracnemella australiensis*** Girault. Orig. desig.
Stenoteropsis Girault, 1915. Queensland Mus. Mem. 4: 176.
Type: ***Stenoteropsis abjectus*** Girault. Monob.

mexicanus Girault. Fla.
Coccidoxenus mexicanus Girault, 1917. Descr. Stellarum Nov., p. 21. ♀.

nubilipennis (Girault). Ill. Host: *Lecanium nigrofasciatum* Perg.
Anagyrus nubilipennis Girault, 1909. Psyche 16: 76. ♂ ♀.

Genus QUAYLEA Timberlake

Quaylea Timberlake, 1919. Hawaii. Ent. Soc. Proc. 4: 214.
Type: ***Cerchysius whittieri*** Girault. Orig. desig.

whittieri (Girault). Calif. Hosts: *Saissetia oleae* (Bern.); *Aphycus lounsburyi* How.; *Scutellista cyanea* Mots.; *Tomocera californica* How.
Cerchysius whittieri Girault, 1918. Ent. News 29: 66. ♀.
Hemencyrtus crawii Timberlake, 1919. Hawaii. Ent. Soc. Proc. 4: 216.
Biology: Flanders, 1943. Jour. Econ. Ent. 36: 922–925.—Flanders, 1944. Jour. Econ. Ent. 37: 409.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 61, 113–114.

Genus PARASTENOTERYS Girault

Parastenoterys Girault, 1915. Queensland Mus. Mem. 4: 165.
Type: ***Parastenoterys punctatus*** Girault. Orig. desig.
Parectromoides Girault, 1915. Queensland Mus. Mem. 4: 171.
Type: ***Parectromoides magniscutellum*** Girault. Monob.

niveiclava Girault. Md.
Parastenoterys niveiclava Girault, 1917. Chalcidoidea Nova Marilandensis II, p. 1. ♀.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 191.

Genus ANARHOPUS Timberlake

Anarhopus Timberlake, 1929. Calif. Univ. Pubs., Ent. 5: 15.
Type: ***Anarhopus sydneyensis*** Timberlake. Monob.

sydneyensis Timberlake. Calif. Hosts: *Pseudococcus adonidum* (L.); *P. gahani* Green.
Anarhopus sydneyensis Timberlake, 1929. Calif. Univ. Pubs., Ent. 5: 5, 17. ♀.
Biology: Compere and Flanders, 1934. Jour. Econ. Ent. 27: 966–973.—Flanders, 1940. Calif. Citrog. 25: 146, 154–155.—Clancy, 1944. Jour. Econ. Ent. 37: 450.—Maple, 1947. Calif. Univ. Pubs., Ent. 8: 59–60.—DeBach, 1949. Ecology 30: 16–25.

Genus PSEUDORHOPUS Timberlake

Pseudorhopus Timberlake, 1926. U. S. Natl. Mus. Proc. 69 (3): 9.
Type: ***Encyrtus testaceus*** Ratzeburg. Orig. desig.

fuscus (Girault). Ont., Que. Host: Apparently coccid, not *Choristoneura fumiferana* (Clem.).

Rhopoideus fuscus Girault, 1912. Canad. Ent. 44: 5. ♀.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 184.

hartmani Timberlake. Tex. Host: *Lecanium* sp.
Pseudorhopus hartmani Timberlake, 1926. U. S. Natl. Mus. Proc. 69 (3): 10. ♂ ♀.

Genus HEXACNEMUS Timberlake

Hexacnemus Timberlake, 1926. U. S. Natl. Mus. Proc. 69 (3): 12.
Type: *Hexacnemus armitagei* Timberlake. Monob.

armitagei Timberlake. Calif. Hosts: *Sympherobius californicus* Banks; *S.* sp.
Hexacnemus armitagei Timberlake, 1926. U. S. Natl. Mus. Proc. 69 (3): 15. ♂ ♀.

Genus TACHARDIOBIUS Timberlake

Tachardiobius Timberlake, 1926. U. S. Natl. Mus. Proc. 69 (3): 19.
Type: *Tachardiobius nigricans* Timberlake. Monob.

nigricans Timberlake. Ariz., Calif. Host: *Tachardiella larreae* (Comst.).
Tachardiobius nigricans Timberlake, 1926. U. S. Natl. Mus. Proc. 69 (3): 23. ♂ ♀.

Genus MAYRIDIA Mercet

Mayridia Mercet, 1921. Fauna Ibérica, Himen. Encirtidos, p. 426.
Type: *Mayridia pulchra* Mercet. Orig. desig.

americana Timberlake. N. Dak., S. Dak., Utah. Host: *Trionymus utahensis* (Ckll.).
Mayridia americana Timberlake, 1926. U. S. Natl. Mus. Proc. 69 (3): 28. ♂ ♀.

Genus GAHANIELLA Timberlake

Gahaniella Timberlake, 1926. U. S. Natl. Mus. Proc. 69 (3): 23.
Type: *Gahaniella californica* Timberlake. Orig. desig.

californica Timberlake. Calif. Host: *Lecanium corni* Bouché.
Gahaniella californica Timberlake, 1926. U. S. Natl. Mus. Proc. 69 (3): 26. ♂ ♀.

Genus EPAENASOMYIA Girault

Epaenasomyia Girault, 1917. Chalcidoidea Nova Marilandensis III, p. 3.
Type: *Epaenasomyia varicornis* Girault. Monob.

varicornis Girault. Md.
Epaenasomyia varicornis Girault, 1917. Chalcidoidea Nova Marilandensis III, p. 3. ♀.

Genus PHEIDOLOXENUS Ashmead

Pheidoloxenus Ashmead, 1904. Carnegie Mus. Mem. 1: 328.
Type: *Pheidoloxenus wheeleri* Ashmead. Monob. and orig. desig.
Pheidoloxenus Girault, 1915. Ent. Soc. Amer. Ann. 8: 273. Preocc.
Type: *Pheidoloxenus wheeleri* Girault. Monob.
Pheidoloxeniscus Ghesquière, 1946. Rev. Zool. Bot. Africaines 34: 369. N. name.

wheeleri Ashmead. Tex. Host: Nest of *Pheidole kingi instabilis* Emery.
Pheidoloxenus wheeleri Ashmead, 1904. Carnegie Mus. Mem. 1: 327, 385. ♀.
Pheidoloxenus wheeleri Girault, 1915. Ent. Soc. Amer. Ann. 8: 273. Preocc. ♀.
Taxonomy: Wheeler, 1907. Amer. Mus. Natl. Hist. Bul. 23: 17–18.

Subfamily ARRHENOPHAGINAE

Genus ARRHENOPHAGUS Aurivillius

Arrhenophagus Aurivillius, 1888. Ent. Tidskr. 9: 144.
Type: *Arrhenophagus chionaspidis* Aurivillius. Monob.

chionaspidis Aurivillius. Cosmopolitan. Hosts: *Aspidiotus forbesi* Johns., *A. perniciosus* Comst., *Aulacaspis rosae* (Bouché).
Arrhenophagus chionaspidis Aurivillius, 1888. Ent. Tidskr. 9: 146. ♀.
Taxonomy: Girault, 1911. N. Y. Ent. Soc. Jour. 19: 177–179.

Family EUPELMIDAE

Revisions: Ashmead, 1896. Ent. Soc. Wash. Proc. 4: 4–20.—Ruschka, 1921 (1920). Zool.-Bot. Gesell. Wien. Verh. 70: 234–315.

Genus METAPELMA Westwood

Metapelma Westwood, 1835. Zool. Soc. London Proc. 3: 69.
Type: ***Metapelma spectabilis*** Westwood. Monob.
Halidea Foerster, 1856. Hym. Stud., v. 2, p. 31. No species.
Type: ***Halidea insignis*** Foerster. Desig. by Gahan and Fagan, 1923.
Halidayella Dalla Torre, 1897. Wien. Ent. Ztg. 16: 85. N. name.
Revision: Ferrière, 1938. Soc. Ent. France Ann. 107: 25–43.

schwarzi (Ashmead). Va., Tex.
Halidea Schwarzi Ashmead, 1890. Ent. Soc. Wash. Proc. 1: 265. ♀.

spectabilis Westwood. N. Y. and Conn. to Fla.; Kans., Ariz., Calif. Hosts: *Agrilus angelicus* Horn; *Cylas formicarius elegantulus* Sum.; *Magdalis olyra* (Hbst.); *M. pandura* (Say); *? Scolytus quadrispinosus* Say.
Metapelma spectabilis Westwood, 1835. Zool. Soc. London Proc. 3: 69. ♀.
Biology: Blackman and Stage, 1924. N. Y. State Col. Forestry, Syracuse Univ., Tech. Pub. 17: 25.—Rhoads, 1924. *In* Blackman and Stage, N. Y. State Col. Forestry, Syracuse Univ., Tech. Pub. 17: 185.

Genus EUSANDALUM Ratzeburg

Eusandalum Ratzeburg, 1852. Ichn. d. Forstins., v. 3, p. 199.
Type: ***Eusandalum abbreviatum*** Ratzeburg. Desig. by Ashmead, 1904.
Ratzeburgia Foerster, 1856. Hym. Stud., v. 2, pp. 31, 145.
Type: ***Eusandalum abbreviatum*** Ratzeburg. Desig. by Gahan and Fagan, 1923.
Meseusandalum Girault, 1915. Queensland Mus. Mem. 4: 34.
Type: ***Meseusandalum cyaneiventris*** Girault. Orig. desig.
Revision: Girault, 1917. Jour. Ent. and Zool. 9: 8–10.

acmaeoderae Rohwer. Calif. Hosts: *Acmaeodera* sp. in *Ceanothus integerrimus*; *Amphicerus bicaudatus* (Say).
Eusandalum acmaeorerae (!) Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 171. ♀.
Eusandalum acmaeoderae Girault, 1917. Jour. Ent. and Zool. 9: 9. Emend.

alpinum Girault. Calif.
Eusandalum alpinum Girault, 1917. Jour. Ent. and Zool. 9: 8. ♀.

amphicerovorum (Ashmead). N. J., Kans.
Ratzburgia (!) ***amphicerovora*** Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. V. "♂"=♀.

arizonae Girault, emend. Ariz.
Eusandalum arizona Girault, 1917. Jour. Ent. and Zool. 9: 9. ♀.

californicum Girault. Calif.
Eusandalum californicum Girault, 1917. Jour. Ent. and Zool. 9: 8. ♀.

coquillettii (Ashmead). Calif. Hosts: *Amphicerus bicaudatus* (Say); *Oeme gracilis* Lec.
Ratzeburgia coquillettii Ashmead, 1896. Ent. Soc. Wash. Proc. 4: 11. ♀.

cyaneum (Ashmead). Ariz.
Ratzeburgia cyanea Ashmead, 1896. Ent. Soc. Wash. Proc. 4: 11. ♀.

georgiae Girault, emend. D. C., Ga.
Eusandalum georgia Girault, 1917. Jour. Ent. and Zool. 9: 8. ♀.

hubbardii (Ashmead). N. J., D. C., Fla., Mont., Wash. Hosts: *Leptostylus biustus* Lec.; ?*Ips latidens* Lec.; ?*Pityophthorus burkei* Blackm.; ?*Pityogenes knechteli* Swaine.

Ratzeburgia hubbardii Ashmead, 1896. Ent. Soc. Wash. Proc. 4: 12. ♀.

Biology: De Leon, 1934. Canad. Ent. 66: 60.

hyalinipennis (Ashmead). Calif.

Ratzeburgia hyalinipennis Ashmead, 1896. Ent. Soc. Wash. Proc. 4: 12. ♀.

obscurum Girault. Wash.

Eusandalum obscurum Girault, 1917. Jour. Ent. and Zool. 9: 8. ♀.

Genus CALOSOTA Curtis

Calosota Curtis, 1836. Brit. Ent. 13: 596.
Type: ***Calosota vernalis*** Curtis. Orig. desig.

Calosoter Walker, 1837. Ent. Mag. 4: 358.
Type: ***Calosoter vernalis*** Walker. Desig. by Westwood, 1840.

longiventris (Ashmead). Calif.

Calosoter longiventris Ashmead, 1896. Ent. Soc. Wash. Proc. 4: 12. ♂ ♀.

metallica (Gahan). Utah, Calif., Oreg., Wash. Hosts: *Ancylis comptana fragariae* (W. and R.); *Archips rosaceana* (Harr.); *Phytophaga destructor* (Say); *Ditropinotus aureoviridis* Cwfd.; *Eurytoma parva* Phillips; *Harmolita grandis* (Riley); *H. tritici* (Fitch).

Calosoter metallicus Gahan, 1922. U. S. Natl. Mus. Proc. 61 (24): 16. ♂ ♀.

Biology: Knowlton and Janes, 1933. Utah Agr. Expt. Sta. Bul. 243: 12.—Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 58–60.—Chamberlain, 1941. U. S. Dept. Agr. Tech. Bul. 784: 38–40.

Genus EUPELMUS Dalman

Eupelmus Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 136, 180.
Type: ***Eupelmus memnonius*** Dalman. Desig. by Westwood, 1840.

Cerambycobius Ashmead, 1896. Ent. Soc. Wash. Proc. 4: 7, 10, 17. N. syn.
Type: ***Eupelmus cleri*** Ashmead. Monob. and orig. desig.

Revision. Crawford, 1908. Ent. Soc. Wash. Proc. 9: 157–158. (*Cerambycobius*)

allynii (French). Common throughout U. S.; P. E. I., Ont., Man. Hosts: *Oecanthus nigricornis quadripunctatus* Beut.; *Languria mozardi* Latr.; *Apion delta* Buch.; *Coleophora malivorella* Riley; *Epiblema otiosana* (Clem.); *Tischeria malifoliella* Clem.; *Lasioptera vernoniae* Beut.; *Phytophaga destructor* (Say); tephritid seed maggot from ironweed; *Meromyza americana* Fitch; *M. saltatrix* (L.); *Cephus cinctus* Nort.; *C. pygmaeus* (L.); *C. tabidus* (F.); *Bracon cephi* (Gahan); *Platygaster hiemalis* Pack.; *P. vernalis* (Myers); *P.* sp.; *Pleurotropis metallica* (Nees); *Tetrastichus carinatus* Forbes; *Ditropinotus aureoviridis* Cwfd.; *Eupteromalus subapterus* (Riley); *Habrocytus languriae* Ashm.; *Merisoporus chalcidiphagus* (W. and R.); *Merisus destructor* (Say); *M. febriculosus* Gir.; *Eurytoma parva* Phillips; *E.* sp.; *Harmolita albomaculata* (Ashm.); *H. atlantica* P. and E.; *H. elymi* (French); *H. elymicola* P. and E.; *H. elymivora* P. and E.; *H. elymophaga* P. and E.; *H. grandis* (Riley); ?*H. hesperus* P. and E.; *H. holci* Phillips; *H. hordei* (Harris); *H. maculata* (How.); ?*H. occidentalis* P. and E.; *H. tritici* (Fitch); *H. vaginicola* (Doane).

Isosoma allynii French, 1881. Prairie Farmer 52: 418.

Biology: Packard, 1916. Jour. Agr. Res. 6: 370–373.—Phillips and Poos, 1921. Jour. Agr. Res. 21: 405–426.—Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 41–46, ♂ ♀.—Hill, Pinckney, and Udine, 1939. U. S. Dept. Agr. Tech. Bul. 689: 3–15.—Chamberlain, 1941. U. S. Dept. Agr. Tech. Bul. 784: 29, 39.

Morphology: Hill and Pinckney, 1940. U. S. Dept. Agr. Tech. Bul. 715: 2–3, 7, 11–13.

Taxonomy: Parker, 1924. Soc. Ent. France Ann. 93: 266, 286.—Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 41–46, ♂ ♀.

ashmeadi Melander and Brues. Mass.

Eupelmus Ashmeadi Melander and Brues, 1903. Biol. Bul. 5: 21. ♀.

auratus Ashmead. Fla., La. Hosts: *Andricus virens* Ashm.; *Callirhytis rugosa* Ashm.

Eupelmus auratus Ashmead, 1886. Trans. Amer. Ent. Soc. 12: 128. ♀.

bardus Girault. Calif.
Eupelmus bardus Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum. Observ. V, p. 3. ♀.

2-guttus Girault. Md.
Eupelmus 2-guttus Girault, 1917. Ent. News 28: 256. ♀. (***biguttus*** in Index).

brevicauda (Crawford). Tex., Ariz. Host: *Acanthoscelides horni* (Pic).
Cerambycobius brevicauda Crawford, 1908 (1907). Ent. Soc. Wash. Proc. 9: 158. ♀. (Not *brevicaudus* Gahan, 1910.)

bruchivorus (Crawford). N. C., Tex. Hosts: *Bruchus* sp. on *Vachellia* [probably *Mimosestes sallaei* (Sharp)]; *Mimosestes sallaei* (Sharp); ?*Phloeotribus frontalis* (Oliv.).
Cerambycobius bruchivorus Crawford, 1908 (1907). Ent. Soc. Wash. Proc. 9: 158. ♀.

charitopoides Girault. W. Va., La.
Eupelmus charitopoides Girault, 1916. Canad. Ent. 48: 244. ♀.

cleri Ashmead. Va., N. C. Hosts: Clerid in white pine; *Thanasimus trifasciatus* (Say); ?*Melanophila fulvoguttata* Harr.; ?*Pissodes strobi* (Peck); ?*Odontaulacus abdominalis* Cress.
Eupelmus cleri Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 339. ♂ ♀.

coccidis Girault.
Eupelmus coccidis Girault, 1916. Ent. News 27: 223. ♀. (Not *coccidis* Girault, 1917.)

conigerae Ashmead. N. J., Fla. Host: Gall of *Callirhytis ventricosa* (O. S.).
Eupelmus conigerae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xv. ♀.

cushmani (Crawford). Tex., La. Hosts: *Araecerus fasciculatus* (Deg.); *Acanthoscelides ochraceicolor* (Pic); *Mimosestes sallaei* (Sharp); *Anthonomus grandis* Boh.; *Cylindrocopturus adspersus* (Lec.); *C. longulus* (Lec.); *Lixus scrobicollis* Boh.; *Trichobaris texana* Lec.
Cerambycobius cushmani Crawford, 1908 (1907). Ent. Soc. Wash. Proc. 9: 158. ♀.
Biology: Pierce, 1910. Jour. Econ. Ent. 3: 455.—Pierce, Cushman, and Hood, 1912. U. S. Dept. Agr. Bur. Ent. Bul. 100: 51–62.—Pierce and Cushman, 1915. Ent. Soc. Wash. Proc. 17: 165.
Morphology: Snodgrass, 1910. U. S. Natl. Mus. Proc. 39: 65.

cyaniceps amicus Girault. N. Y. to Ga. and Ill.; Ohio, Ark., N. Mex. and ?Tex. Hosts: *Acanthoscelides alboscutellatus* (Horn); *Bruchus brachialis* Fahr.; *B. pisorum* (L.); *Mimosestes amicus* (Horn); *Anthonomus grandis* Boh.; *Chalcodermus aeneus* Boh.; *Desmoris fulvus* Lec.; *Scolytus multistriatus* (Marsh.); *Ulophora grotei* Rag.; *Grapholitha molesta* (Busck); *Rhyacionia frustrana* (Comst.); *Coleophora malivorella* Riley; *Macrocentrus* sp.
Eupelmus cyaniceps var. ***amicus*** Girault, 1916. Canad. Ent. 48: 244. ♀.
Biology: Fenton and Dunnam, 1929. U. S. Dept. Agr. Tech. Bul. 112: 66.—Beacher, 1947. Ent. Soc. Amer. Ann. 40: 532–544.—Brunson, 1948. Jour. Econ. Ent. 41: 119.

cyaniceps cyaniceps Ashmead. Ont. to N. C., Fla., Miss., La., Tex., Ark., Okla., Kans., N. Mex. Hosts: *Anthonomus albopilosus* Dietz; *A. grandis* Boh.; *Apion rostrum* Say; *Conotrachelus crataegi* Walsh; *Cylindrocopturus adspersus* Lec.; *C. longulus* Lec.; *Lixus musculus* Say; *L. scrobicollis* Boh.; *Smicraulax tuberculatus* Pierce; *Tachypterellus quadrigibbus* (Say); *Trichobaris compacta* Casey; *T. texana* Lec.; *Tychius sordidus* Lec.; ?*Acanthoscelides bisignatus* (Horn); ?*A. compressicornis* Schaef.; *A. horni* Pic; *A. obtectus* (Say); *A. ochraceicolor* (Pic); *Amblycerus robiniae* (F.); *Gibbobruchus mimus* (Say); *Mimosestes sallaei* (Sharp); *Carpocapsa pomonella* (L.); *Grapholitha molesta* (Busck); *Bucculatrix fusicola* Braun; *Thyridopteryx ephemeraeformis* (Haw.); *Bracon* sp.; *Glypta* sp.
Eupelmus cyaniceps Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 129. ♀.

Biology: Pierce, 1908. U. S. Dept. Agr. Bur. Ent. Bul. 73: 29–48.—Pierce, Cushman, and Hood, 1912. U. S. Dept. Agr. Bur. Ent. Bul. 100: 31–68.—Pierce and Cushman, 1915. Ent. Soc. Wash. Proc. 17: 165–167.—Tucker, 1922. Kans. Acad. Sci. Trans. 30: 144.—Breland, 1948. Ent. News 59: 234.
Morphology: Parker, 1924. Ann. Soc. Ent. France 93: 266.

cyaniceps utahensis Girault. Utah.
Eupelmus cyaniceps var. ***utahensis*** Girault, 1916. Canad. Ent. 48: 244. ♀.

cynipidis Ashmead. Fla., La. Host: Gall of *Callirhytis batatoides* (Ashm.).
Eupelmus cynipidis Ashmead, 1882. Canad. Ent. 14: 36. ♀.

dryophantae Ashmead. Fla. Host: Gall of *Dryocosmus laurifoliae* (Ashm.).
Eupelmus dryophantae Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 130. ♂ ♀.

ficigerae (Ashmead), n. comb. Fla. Hosts in galls of: *Andricus femoratus* Ashm.; *Disholcaspis virens* (Ashm.).
Megastigma (!) ***ficigerae*** Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 185. ♂.

flavovariegatus Ashmead. Kans. Host: Gall of ?*Adleria dimorphus* (Beut.).
Eupelmus flavovariegatus Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. IV. ♂ ♀.

floridanus Howard. Fla. Host: Tineid larva on orange.
Eupelmus Floridanus Howard, 1880. Canad. Ent. 12: 209. ♂.

fonteia Walker. Fla.
Eupelmus Fonteia Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 19. ♀.

inyoensis Girault. Calif. Hosts: *Saissetia oleae* (Bern.); ?*Acanthoscelides floridae* (Horn); *A. horni* Pic; *Asphondylia adenostoma* Felt; *Aphycus lounsburyi* How.
Eupelmus inyoensis Girault, 1916. Ent. News 27: 223. ♂ ♀.
Biology: Compere, 1925. Calif. Univ. Pubs., Ent. 3: 296.—Flanders, 1940. Ent. Soc. Amer. Ann. 33: 252.
Taxonomy: Smith and Compere, 1928. Calif. Univ. Pubs., Ent. 4: 295–297.

juglandis Ashmead. N. Y., Va., N. C., Kans. Hosts: *Magdalis* spp.; *Scolytus rugulosus* (Ratz.); ?*Stephanoderes dissimilis* (Zimm.).
Eupelmus juglandis Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 340. ♀.

lamachus Walker. Fla.
Eupelmus Lamachus Walker, 1847. Ann. Mag. Nat. Hist (1) 20: 20. ♀.

limneriae Howard. Conn., Md., D. C., N. C., S. C., Fla. Hosts: *Grapholitha molesta* (Busck); *Homaledra sabalella* (Chamb.); *Macrocentrus* sp.; *Campoplex validus* (Cress.); *Spilochalcis debilis* (Say).
Eupelmus limneriae Howard, 1897. U. S. Dept. Agr. Div. Ent. Tech. Ser. 5: 39, 56. ♂ ♀.

macrocarpae Ashmead. Ill., Kan. Hosts: *Acraspis erinacei* (Beut.); *A. pezomachoides* (O. S.); gall of *Disholcaspis mamma* (Cress.).
Eupelmus macrocarpae Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. IV. ♀.
Biology: Balduf, 1926. Canad. Ent. 58: 160–163.

marylandicus Girault. Md.
Eupelmus marylandicus Girault, 1916. Canad. Ent. 48: 242. ♀.

momphae Gahan. Conn., Ga., Ala., Tex. Hosts: ?*Oeneis melissa semidea* (Say); ?*Epiblema scudderiana* (Clem.); *E. tripartitana* (Zell.); *Phalonia cephalanthana* Heinr.; ?*Mompha brevivittella* (Clem.).
Eupelmus momphae Gahan, 1910. Canad. Ent. 42: 205. ♀.

neococcidis Peck, n. name. Md., La., Tex., Ariz. Hosts: *Stagmomantis carolina* (Johan.); *S. limbata* (Hahn); *Mantis* sp.; *Coccus hesperidum* (L.).
Eupelmus brevicauda Gahan, 1910. Canad. Ent. 42: 205. ♀. Preocc.
Eupelmus coccidis Girault, 1917. Descr. Stellarum Nov., p. 6. N. name. Preocc. by *E. coccidis* Girault, 1916.
Biology: Breland, 1941. Ent. Soc. Amer. Ann. 34: 108.

neomexicanus Girault. N. Mex.
Eupelmus neomexicanus Girault, 1906. Ent. Soc. Amer. Ann. 9: 307. ♀.

pini Taylor. N. Y., Mass., Conn. Host: *Pissodes strobi* (Peck).
Eupelmus pini Taylor, 1927. Brooklyn Ent. Soc. Bul. 22: 205. ♀.
Biology and taxonomy: Taylor, 1929. Ent. Amer. 10: 12–16, 66.

popa Girault. Va. to Fla., La., Tex. and Mo. Hosts: *Contarinia caudata* Felt; *C. sorghicola* (Coq.).
Eupelmus popa Girault, 1917. Descr. Hym. Chalcidoid. Variorum Cum Observ. V., p. 4. ♀.
Biology: Woodruff, 1929. Jour. Econ. Ent. 22: 160–167.—Walter, 1941. U. S. Dept. Agr. Tech. Bul. 778: 18–20.
Taxonomy: Gahan, 1922. U. S. Natl. Mus. Proc. 61 (24): 14.

quercus Girault. Fla. Host: Gall of *Disholcaspis virens* (Ashm.).
Eupelmus quercus Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 130. ♀.

rhizophelus Brues. Mass.
Eupelmus rhizophelus Brues, 1903. Biol. Bul. 4: 186.
Biology: Melander and Brues, 1903. Biol. Bul. 5: 21.

rosae Ashmead. Fla., La., Kans. Hosts: ?*Pyrausta ainsliei* Heinr.; *Diplolepis* gall on rose.
Eupelmus rosae Ashmead, 1882. Canad. Ent. 14: 36. ♀.

rubicola (Ashmead), n. comb. Fla. Host: Dipterous larva in stem of *Rubus villosus*.
Xenomerus rubicola Ashmead, 1887. Ent. Amer. 3: 100. ♂.
Taxonomy: Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 185.

speciosus Girault. D. C.
Eupelmus speciosus Girault, 1916. Canad. Ent. 48: 243. ♀.

sphaericephalus Ashmead. Fla.
Eupelmus sphaericephalus Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 129. ♀.

spongipartus Foerster. N. Y., Conn., Pa., Md., Ohio. Hosts: *Apanteles melanoscelus* (Ratz.); *Macrocentrus ancylivorus* Roh.; *Meteorus versicolor* (Wesm.).
Eupelmus spongipartus Foerster, 1860. Naturh. Ver. Rheinlande Verh. 17: 123. ♂ ♀.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 12, 21–23.—Proper, 1934. Jour. Agr. Res. 48: 366.—Brunson and Allen, 1948. Jour. Econ. Ent. 41: 447.—Brunson, 1948. Jour. Econ. Ent. 41: 119.

Genus ARACHNOPHAGA Ashmead

Arachnophaga Ashmead, 1896. Ent. Soc. Wash. Proc. 4: 9, 10, 18.
Type: ***Eupelmus piceus*** Riley. Monob.
Revision: Gahan, 1943. U. S. Natl. Mus. Proc. 94: 339–363.

abstrusa Gahan. Tex. Host: *Cyrtarachne* sp.
Arachnophaga abstrusa Gahan, 1943. U. S. Natl. Mus. Proc. 94: 362. ♂ ♀.

aldrichi Gahan. Mass., N. J., Md., Miss.
Arachnophaga aldrichi Gahan, 1943. U. S. Natl. Mus. Proc. 94: 360. ♀.

aureicorpus (Girault). S. C., Tex. Host: ?Syrphid.
Anastatus aureicorpus Girault, 1916. Ent. Soc. Amer. Ann. 9: 299. ♀.

costalis Gahan. N. J., Md. Hosts: *Grapholitha molesta* (Busck); *Macrocentrus* sp.
Arachnophaga costalis Gahan, 1943. U. S. Natl. Mus. Proc. 94: 346. ♀.

ferruginea Gahan. Va. Host: *Epeira pegnia* Walck.
Arachnophaga ferruginea Gahan, 1943. U. S. Natl. Mus. Proc. 94: 361. ♀.

frontalis Gahan. Conn., N. J., Va., S. C., Ariz., Utah. Hosts: *Thyridopteryx meadii* Hy. Edw.; *Anarsia lineatella* Zell.; *Macrocentrus ancylivorus* Roh.
Arachnophaga frontalis Gahan, 1943. U. S. Natl. Mus. Proc. 94: 357. ♂ ♀.

longiceps (Brues). Tex. Host: *Papilio* sp.
Anastatus longiceps Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 108. ♀.

nocua Gahan. Tex. Hosts: *Estigmene acrea* (Drury); ?*Apanteles* sp.
Arachnophaga nocua Gahan, 1943. U. S. Natl. Mus. Proc. 94: 346, 348. ♂ ♀.

picea (Riley). N. J., Ill., Ariz., Calif. Hosts: *Chrysopa californica* Coq.; *Argiope argentata* (F.); *A.* sp.; *Epeira* sp.; *Phidippus opifex* McC.
Eupelmus piceus Riley, 1892. *In* Howard, Ent. Soc. Wash. Proc. 2: 296. ♂ ♀.
Biology: Weese, 1925. Ill. Biol. Monog. 9 (4): 19, 46–52.—Clancy, 1946. Calif. Univ. Pubs., Ent. 7: 459–460.
Taxonomy: Clancy, 1946. Calif. Univ. Pubs., Ent. 7: 459–460.

scutata Gahan. Ill. Host: Spider.
Arachnophaga scutata Gahan, 1943. U. S. Natl. Mus. Proc. 94: 353. ♂ ♀.

Genus EUPELMELLA Masi

Macroneura Walker, 1837. Ent. Mag. 4: 353. Preocc.
Type: (***Macroneura maculipes*** Walker)=[***Ichneumon***] ***vesicularis*** (Retzius). Monob.
Macronevra Blanchard, 1840. Hist. Nat. Anim. Articules, v. 3, p. 273. Emend. Preocc.
Eupelmella Masi, 1919. Mus. Civ. Stor. Nat. Genova Ann. 48: 306.
Type: (***Eupelmus degeeri*** Dalman)=[***Ichneumon***] ***vesicularis*** (Retzius). Monob.

canadensis (Provancher), n. comb. Que.
Theocolax Canadensis Provancher, 1883. Nat. Canad. 14: 34. ♀.

dryorhizoxeni (Ashmead), n. comb. N. Y., Fla., Kans. Hosts: ?*Dasyneura lysimachiae* Beut.; galls of *Rhabdophaga triticoides* Walsh, *Belonocnema treatae* Mayr.
Eupelmus dryorhizoxeni Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 129. ♂ ♀.

epicaste (Walker), n. comb. Ont., Fla. Host: *Harmolita tritici* (Fitch).
Eupelmus Epicaste Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 20. ♀.

melanderi (Brues), n. comb. Wash. Host: *Rhodites* gall on *Rosa pisocarpa.*
Eupelmus melanderi Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 54. ♀.

meteori (Gahan), n. comb. Tex. Host: *Meteorus laphygmae* Vier.
Eupelminus meteori Gahan, 1913. U. S. Natl. Mus. Proc. 46: 437. ♀.
Biology: Luginbill, 1928. U. S. Dept. Agr. Tech. Bul. 34: 74–75.—Vickery, 1929. U. S. Dept. Agr. Tech. Bul. 138: 21, 32, 55, 58.

vesicularis (Retzius). Ont. and Maine to Va., Tenn., Colo., Utah, Oreg., Wash. Hosts: *Bruchus brachialis* Fahr.; *Anthonomus signatus* Say; *Ceutorhynchus assimilis* (Payk.); *Cylindrocopturus furnissi* Buch.; *Tachypterellus consors cerasi* List; *Tortrix packardiana* Fern.; *Argyresthia thuiella* (Pack.); *Coleophora pruniella* Clem.; *C. salmani* Heinr.; *Eurukuttarus confederata* (Grote); *Phytophaga destructor* (Say); *Neodiprion banksianae* Roh.; *Cephus cinctus* Nort.; *C. pygmaeus* (L.); *Apanteles melanoscelus* (Ratz.); *A. solitarius* (Ratz.); *Bathyplectes curculionis* (Thoms.); gall of *Aulacidea podagrae* (Bass.); *A. tumida* (Bass.); *Diplolepis* sp.; *Platygaster vernalis* (Myers); *P. zosine* Walkr.; *Dahlbominus fuscipennis* (Zett.); *Eupelmus allynii* (French); *Ditropinotus aureoviridis* Cwfd.; *Hemadas nubilipennis* (Ashm.); *Merisoporus chalcidiphagus* W. and R.; *Bruchophagus gibbus* (Boh.); *Eurytoma parva* Phillips; *Harmolita albomaculata* (Ashm.); *H. atlantica* P. and E.; *H. dactylicola* P. and E.; *H. elymi* (French); *H. festucae* P. and E.; *H. grandis grandis* (Riley); *H. hordei* (Harr.); *H. maculata* (How.); *H. tritici* (Fitch); *H. vaginicola* (Doane); *H.* sp. in *Agropyron tenerum; H.* sp. in *Agropyron; H.* sp. in *Elymus.*
Ichneumon vesicularis Retzius, 1783. Genera et Species Insectorum, p. 70.
Euryscapus saltator Lindeman, 1887. Soc. Imp. Nat. Moscou Bul. (2) 1: 190. ♂ ♀.
Eupelminus coleopterophagus Girault, 1916. Ent. Soc. Amer. Ann. 9: 306. ♀.
Biology: McConnell, 1918. Jour. Econ. Ent. 11: 168.—Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 12, 23–24.—Phillips and Poos, 1927. Jour. Agr. Res. 34: 473–482.—Morris, 1938. Parasitology 30: 20–32.—Hill, Pinckney, and Udine, 1939. U. S. Dept. Agr. Tech. Bul. 689: 4–14.—Chamberlain, 1941. U. S. Dept. Agr. Tech. Bul. 784: 25, 29, 38–39.
Taxonomy: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 52–58.—Hill and Pinckney, 1940. U. S. Dept. Agr. Tech. Bul. 715: 6–7, 11–13.

Genus ANASTATUS Motschulsky

Anastatus Motschulsky, 1860 (1859). Études Ent. 8: 116.
Type: ***Anastatus mantoidae*** Motschulsky. Monob.
Antigaster Walsh and Riley, 1869. Amer. Ent. 1: 156.
Type: ***Antigaster mirabilis*** Walsh and Riley. Monob.
Paraguaya Girault, 1911. Zool. Jahrb., Abt. f. System. 31: 385.
Type: ***Paraguaya pulchripennis*** Girault. Monob.
Ooderelloides Girault, 1913. Roy. Soc. So. Austral. Trans. 37: 6, 9, 10.
Type: ***Ooderelloides nigripurpurea*** Girault. Orig. desig.

The Nearctic species of *Anastatus* parasitize insect eggs.

blattidarum Ferrière. Ariz. Host: *Supella supellectilium* (Serv.).
Anastatus blattidarum Ferrière, 1930. Bul. Ent. Res. 21: 33–34. ♀.
Taxonomy: Ferrière, 1935. Stylops 4: 150.

disparis Ruschka, (***bifasciatus*** of Amer. Authors, *nec* Fonsc.). New England, Ariz. Hosts: *Nygmia phaeorrhoea* (Donov.); *Porthetria dispar* L.; *Apanteles melanoscelus* (Ratz.).
Anastatus bifasciatus var. ***disparis*** Ruschka, 1920. Zool.-Bot. Gesell. Wien. Verh. 70:265. ♂ ♀.
Biology: Fiske, 1910. Parasites of Gipsy and Brown-Tail Moths Mass., p. 16–51.—Howard and Fiske, 1911. U. S. Dept. Agr. Bur. Ent. Bul. 91: 75, 168–176.—Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 24.—Burgess and Crossman, 1929. U. S. Dept. Agr. Tech. Bul. 86: 23–31.—Felker, 1940. N. H. Dept. Agr. Bien. Rpt. 14: 122.—Brown and Sheals, 1944. Jour. Forestry 42: 400.
Taxonomy: Pieltain, 1934. Eos 10: 286–290.

drassi (Riley). Throughout No. Amer. Host: ?*Drassus* sp.
Eupelmus drassi Riley, 1892. *In* Howard, Ent. Soc. Wash. Proc. 2: 297. ♀.

gemmarii (Ashmead), n. comb. Fla. Host: Gall of *Callirhytis gemmaria* (Ashm.).
Eupelmus gemmarii Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 129. ♀.

hirtus (Ashmead), n. comb. N. Y., N. J., Fla. Host: *Thyanta custator* (F.).
Eupelmus hirtus Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xiv. ♂ ♀.

mantis (Ashmead), n. comb. Fla. Host: *Stagmomantis carolina* (Johan.).
Eupelmus mantis Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xv. ♂ ♀.

microcentri Gahan. D. C., Pa. Host: *Microcentrum* sp.
Anastatus microcentri Gahan, 1922. U. S. Natl. Mus. Proc. 61 (24): 12. ♂ ♀.

mirabilis (Walsh and Riley). N. J. to Fla., Tex., and Kans. Hosts: *Mantis* sp.; *Amblycorypha oblongifolia* (Deg.);*Microcentrum retinerve* (Burm.); *M. rhombifolium* (Sauss.); *Oecanthus nigricornis* Walkr.; *Acrosternum hilare* (Say); *Cressonia juglandis* (A. and S.); sphingid eggs on willow.
Antigaster mirabilis Walsh and Riley, 1869. Amer. Ent. 1: 156. ♀.
Biology: Howard, 1880. Canad. Ent. 12: 209–210.—Howard, 1881. U. S. Dept Agr. Ann. Rpt. for 1880, pp. 250–251.
Taxonomy: Riley, 1874. Mo. State Bd. Agr. Ann. Rpt. 9: 162–165.

pearsalli Ashmead. N. Y., N. J., Va., N. C. Hosts: *Acrosternum hilare* (Say); *Paonias astylus* (Drury); *Apanteles melanoscelus* (Ratz.).
Anastatus pearsalli Ashmead, 1898. Ent. News 9: 24. ♀.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 24–25.

reduvii (Howard). Md. to Fla. and Tex. Hosts: *Stagmomantis carolina* (Johan.); *Microcentrum* sp.; *Acrosternum hilare* (Say); *Anasa tristis* (Deg.); *Arilus cristatus* (L.).
Eupelmus reduvii Howard, 1880. Canad. Ent. 12: 207. ♂ ♀.
Biology: Underhill, 1934. Va. Agr. Expt. Sta. Bul. 294: 17–18.—Breland, 1941. Ent. Soc. Amer. Ann. 34: 110.
Taxonomy: Waterston, 1923. Bul. Ent. Res. 14: 104–108. ♂ ♀.

ruficollis (Cameron) (***mirabilis*** of Calif. authors, *nec* W. and R.). Calif. Host: *Microcentrum rhombifolium* (Sauss.).
Brasema ruficollis Cameron, 1903. Invertebrata Pacifica 1: 125. ♀.

Biology: Essig. 1913. Calif. State Comn. Hort. Monthly Bul. 2: 22, 274.—Isaac, 1905. Calif. State Comnr. Hort. Bien. Rpt. 1: 102 (*mirabilis*).
Taxonomy: Essig, 1926. Insects of West. No. Amer.: 843.

semiflavidus Gahan. N. Mex., Ariz. Hosts: *Hemileuca nevadensis* Stretch; *H. oliviae* Ckll.
Anastatus semiflavidus Gahan, 1914. U. S. Natl. Mus. Proc. 48: 160. ♂ ♀.
Biology: Caffrey, 1921. Jour. Agr. Res. 21: 373–384.—Wildermuth, 1933. Jour. Econ. Ent. 26: 796–798.—Frankenfeld and Barnes, 1933. Jour. Econ. Ent. 26: 799–805.

zeli (Ashmead), n. comb. Fla. Hosts: *Anasa tristis* (Deg.); *Zelus longipes* (L.).
Eupelmus zeli Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 130. ♀.

Genus ENCYRTASPIS Ashmead

Encyrtaspis Ashmead, 1904. Carnegie Mus. Mem. 1: 290, 492.
Type: ***Encyrtaspis brasiliensis*** Ashmead. Monob.
Revision: Gahan, 1943. U. S. Natl. Mus. Proc. 94: 363–369.

californica (Ashmead). N. Mex., Calif. Hosts: *Anarsia lineatella* Zell.; *Evetria* sp. on *Pinus ponderosa*.
Tineobius californicus Ashmead, 1896. Ent. Soc. Wash. Proc. 4: 15. ♀.

laticeps (Brues). Tex.
Anastatus laticeps Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 107. ♀.

semirufa Gahan. N. Y. to Ga., La., Tex. Hosts: *Laetilia coccidivora* (Comst.); *Grapholitha molesta* (Busck); *Macrocentrus ancylivorus* Roh.
Encyrtaspis semirufus Gahan, 1927. U. S. Natl. Mus. Proc. 71 (4): 10. ♂ ♀.
Biology: Haeussler, 1930. Jour. Agr. Res. 41: 366.

Genus LECANIOBIUS Ashmead

Lecaniobius Ashmead, 1896. Ent. Soc. Wash. Proc. 4: 8, 17.
Type: ***Lecaniobius cockerelli*** Ashmead. Monob.
Zalophothrix Crawford, 1908. Ent. Soc. Wash. Proc. 9: 156.
Type: (***Zalophothrix mirum*** Crawford) = ***Lecaniobius cockerellii*** Ashmead. Monob.
Revision: Compere, 1939. Calif. Univ. Pubs., Ent. 7: 79–83.

cockerellii Ashmead. Fla. Hosts: *Saissetia nigra* (Nietn.); *Scutellista cyanea* Mots.
Lecaniobius cockerellii Ashmead, 1896. Ent. Soc. Wash. Proc. 4: 17. ♀.
Zalophothrix mirum Crawford, 1908. Ent. Soc. Wash. Proc. 9: 157. ♀.
Taxonomy: Smith and Compere, 1928. Calif. Univ. Pubs., Ent. 4: 242, 297–301.

utilis Compere. Calif. Host: *Saissetia oleae* (Bern.).
Lecaniobius utilis Compere, 1939. Calif. Univ. Pubs., Ent. 7: 79. ♂ ♀.
Biology: Flanders, 1942. Jour. Econ. Ent. 35: 687.—Flanders, 1944. Jour. Econ. Ent. 37: 409.

Genus ZAISCHNOPSIS Ashmead

Ischnopsis Ashmead, 1896. Ent. Soc. Wash. Proc. 4: 16. Preocc.
Type: ***Ischnopsis ophthalmica*** Ashmead. Monob.
Zaischnopsis Ashmead, 1904. Ent. Soc. Wash. Proc. 6: 126. N. name.

schwarzii (Ashmead), n. comb. Fla.
Charitopus schwarzii Ashmead, 1896. Ent. Soc. Wash. Proc. 4: 11. ♀.

Family EUCHARITIDAE

Revisions: Ruschka, 1924. Deut. Ent. Ztschr., pp. 82–89.—Gahan, 1940. U. S. Natl. Mus. Proc. 88: 425–458.
Biology: Wheeler and Wheeler, 1937. Ent. Soc. Amer. Ann. 30: 163–175.—Clausen, 1940. Wash. Acad. Sci. Jour. 30: 504–516.

Genus PSEUDOCHALCURA Ashmead

Pseudochalcura Ashmead, 1904. Carnegie Mus. Mem. 1: 268, 269, 468.
Type: ***Eucharis gibbosa*** Provancher. Orig. desig.

arizonensis (Crawford), n. comb. Ariz.
Chalcura arizonensis Crawford, 1914. Ent. Soc. Wash. Proc. 16: 29. ♀.
Biology: Pierce and Morrill, 1914. Ent. Soc. Wash. Proc. 16: 22.—Clausen, 1940. Wash. Acad. Sci. Jour. 30: 505–509.

californica (Ashmead), n. comb. Calif.
Chalcura californica Ashmead, 1892. Ent. Soc. Wash. Proc. 2: 356. ♂.

gibbosa (Provancher). Que., Mich. Host: *Camponotus herculeanus ligniperdus* var. *noveboracensis* (Fitch).
Eucharis gibbosa Provancher, 1881. Nat. Canad. 12: 292. ♀.
Biology: Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 16.

Genus STILBULA Spinola

Stilbula Spinola, 1811. Paris Mus. Hist. Nat. Ann. 17: 150.
Type: ***Ichneumon cyniformis*** Rossi. Monob.

floridana (Ashmead). Fla.
Lophyrocera floridana Ashmead, 1888. Ent. Amer. 3: 187. ♂.
Taxonomy: Gahan, 1940. U. S. Natl. Mus. Proc. 88: 435–436.

montana Ashmead. Colo.
Stilbula montana Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 24, 45. ♀.

septentrionalis (Brues). Ariz.
Schizaspidia septentrionalis Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 104. ♀.

Genus LOPHYROCERA Cameron

Lophyrocera Cameron, 1884. Biol. Cent.-Amer., Hym. 1, pp. 101, 103.
Type: ***Lophyrocera stramineipes*** Cameron. Desig. by Ashmead, 1904.

apicalis Ashmead. Calif.
Lophyrocera apicalis Ashmead, 1892. Ent. Soc. Wash. Proc. 2: 357. ♀.

nigromaculata Cameron. Ariz.
Lophyrocera nigromaculata Cameron, 1884. Biol. Cent.-Amer., Hym. 1, p. 104.

Genus KAPALA Cameron

Kapala Cameron, 1884. Biol. Cent.-Amer., Hym. 1, p. 102.
Type: ***Eucharis furcata*** Fabricius. Monob.
Capala Schulz, 1906. Spolia Hym., p. 150. Emend.

floridana (Ashmead). Fla. Host: *Pogonomyrmex badius* (Latr.).
Thoracantha floridana Ashmead, 1885. Ent. Amer. 1: 96. ♂.
Taxonomy: Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xi. ♂ ♀.

furcata (Fabricius). Ga., Tex.
Eucharis furcata Fabricius, 1804. Systema Piezatorum, p. 158.

Genus PSEUDOMETAGEA Ashmead

Pseudometagea Ashmead, 1899. Ent. Soc. Wash. Proc. 4: 239, 241 (no species).
Type: ***Metagea schwarzii*** Ashmead. Included by Ashmead, 1904.

hillmeadia Girault. Md.
Pseudometagea hillmeadia Girault, 1916. Brooklyn Ent. Soc. Bul. 11: 113. ♀.

schwarzii (Ashmead). N. J., Pa., Md., D. C., Ill., Colo.
Metagea schwarzii Ashmead, 1892. Ent. Soc. Wash. Proc. 2: 356. ♂ ♀.

Genus ORASEMA Cameron

Orasema Cameron, 1884. Biol. Cent.-Amer., Hym. 1, p. 104.
Type: ***Orasema stramineipes*** Cameron. Monob.
Revision: Gahan, 1940. U. S. Natl. Mus. Proc. 88: 436–458.

aureoviridis Gahan. Tex.
Orasema aureoviridis Gahan, 1940. U. S. Natl. Mus. Proc. 88: 448. ♂ ♀.

bakeri Gahan. Colo., Ariz.
Orasema bakeri Gahan, 1940. U. S. Natl. Mus. Proc. 88: 452. ♂ ♀.

beameri Gahan. Colo.
Orasema beameri Gahan, 1940. U. S. Natl. Mus. Proc. 88: 447. ♂ ♀.

cockerelli Gahan. Iowa, Kans., Colo., N. Mex., Ariz.
Orasema cockerelli Gahan, 1940. U. S. Natl. Mus. Proc. 88: 453. ♂ ♀.

coloradensis Wheeler. Va., Fla., La., Tex., Iowa, Kans., Colo., N. Mex. Hosts: *Pheidole vinelandica* Forel; *Solenopsis molesta* var. *validiuscula* Emery.
Orasema coloradensis Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 12–14. ♂ ♀.
Biology: Clausen, 1940. Jour. Wash. Acad. Sci. 30: 504–507.

minuta Ashmead. Fla.
Orasema minuta Ashmead, 1888. Ent. Amer. 3: 188. ♂.

neomexicana Gahan. N. Mex.
Orasema neomexicana Gahan, 1940. U. S. Natl. Mus. Proc. 88: 450. ♀.

occidentalis Ashmead. Calif.
Orasema occidentalis Ashmead, 1892. Ent. Soc. Wash. Proc. 2: 355. ♀.

robertsoni Gahan. Fla.
Orasema robertsoni Gahan, 1940. U. S. Natl. Mus. Proc. 88: 451. ♀.

simulatrix Gahan. Ariz.
Orasema simulatrix Gahan, 1940. U. S. Natl. Mus. Proc. 88: 450. ♀.

smithi Howard. Va.
Orasema Smithi Howard, 1897. Linn. Soc. London, Jour., Zool. 26: 134. ♀.

texana Gahan. Tex.
Orasema texana Gahan, 1940. U. S. Natl. Mus. Proc. 88: 440. ♀.

violacea Ashmead. N. C., Fla.
Orasema violacea Ashmead, 1888. Ent. Amer. 3: 187. ♂.

viridis Ashmead. N. C., Ariz.
Orasema viridis Ashmead, 1895. Calif. Acad. Sci. Proc. (2) 5: 553.
Biology: Smith, 1912. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 19: 57–59.

wheeleri Wheeler. Tex., Colo. Hosts: *Pheidole ceres* Whlr.; *P. kingi instabilis* Emery; *P. sciophila* Whlr.
Orasema wheeleri Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 14. ♀.

Family PERILAMPIDAE

Revision: Ruschka, 1924. Deut. Ent. Ztschr., pp. 90–96.

Genus EUPERILAMPUS Walker

Euperilampus Walker, 1871. Notes on Chalcid., pt. 4, p. 67.
Type: *Perilampus gloriosus* Walker. Monob.
Revision: Crawford, 1914. Ent. Soc. Wash. Proc. 16: 67.

lepreos (Walker). Ga.
Perilampus Lepreos Walker, 1846. List Hym. Brit. Mus., v. 1, pp. 22, 89.

opacus Ashmead. Colo., Ariz.
Euperilampus opacus Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 318. ♀.
Taxonomy: Crawford, 1914. Ent. Soc. Wash. Proc. 16: 69.

triangularis (Say). Que., Maine, N. J., Md., N. C., Ind., Fla., Kans., Colo.
Perilampus triangularis Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 78–79.

Genus PERILAMPUS Latreille

Perilampus Latreille, 1809. Gen. Crust. Ins., v. 4, p. 30.
Type: (***Diplolepis violacea*** Fabricius) = [***Cynips***] ***ruficornis*** (Fabricius). Desig. by Latreille, 1810.
Cinipsillum Lamarck, 1817. Hist. Nat. Anim. sans Vert., v. 4, p. 156.
Type: (***Chalcis violacea*** Panzer) = [***Cynips***] ***ruficornis*** (Fabricius). Desig. by Gahan and Fagan, 1923.
Cynipsillum Agassiz, 1845. Nomencl. Zool., Index Univ. p. 325. Emend.
Revision: Smulyan, 1936. U. S. Natl. Mus. Proc. 83: 369–412.

alexinus Walker. Ga.
Perilampus Alexinus Walker, 1846. List Hym. Ins. Brit. Mus., v. 1, p. 89.
Taxonomy: Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 126.

anomocerus Crawford. N. C., Colo., Idaho.
Perilampus anomocerus Crawford, 1914. Ent. Soc. Wash. Proc. 16: 72. ♂ ♀.

canadensis canadensis Crawford. Canada, Pa., Md., Va., La., Minn. Hosts: *Zenillia* sp.; *Macremphytus* sp.
Perilampus canadensis Crawford, 1914. Ent. Soc. Wash. Proc. 16: 74. ♂ ♀.

canadensis nitidus Smulyan. Pa., La.
Perilampus canadensis var. ***nitidus*** Smulyan, 1936. U. S. Natl. Mus. Proc. 83: 393. ♂ ♀.

capitatus Smulyan. N. Y. to Va., Ky. and Mich. Hosts: *Carpocapsa pomonella* (L.); *Ascogaster quadridentata* Wesm.; *Cremastus* sp.
Perilampus capitatus Smulyan, 1936. U. S. Natl. Mus. Proc. 83: 397. ♂ ♀.
Biology: Jaynes and Marucci, 1947. Jour. Econ. Ent. 40: 11–12.

carinifrons Crawford. Tex.
Perilampus carinifrons Crawford, 1914. Ent. Soc. Wash. Proc. 16: 71. ♂ ♀.

carolinensis Smulyan. Vt., N. Y., Conn., N. J., Va., N. C. Hosts: *Anisota senatoria* (A. and S.); *Datana integerrima* G. and R.
Perilampus carolinensis Smulyan, 1936. U. S. Natl. Mus. Proc. 83: 376. ♂ ♀.

chrysopae Crawford. Ont., throughout U. S. Hosts: *Sympherobius angustus* (Banks); *Chrysopa californica* Coq.; *C. oculata* Say; *C. rufilabris* Burm.; *C.* sp.; ?*Carpocapsa pomonella* (L.); *Rhyacionia frustrana* (Comst.); probably *Otacustes crassus crassus* (Prov.).
Perilampus chrysopae Crawford, 1914. Ent. Soc. Wash. Proc. 16: 73. ♂ ♀.
Perilampus chrysopae var. ***laevicephalus*** Crawford, 1917. (1916). Insecutor Inscitiae Menstruus 4: 144. ♂. ♀.
Biology: Clancy, 1946. Calif. Univ. Pubs., Ent. 7: 440–448.

crawfordi Smulyan. N. Y., N. J., Pa., Md., Va.
Perilampus crawfordi Smulyan, 1936. U. S. Natl. Mus. Proc. 83: 384. ♂ ♀.

cyaneus Brullé. Carolina. Hosts: *Diacrisia virginica* (F.); *Cingilia catenaria* (Drury); *Ancylis comptana* (Froel.); *Sarcophaga rapax* Wlkr.
Perilampus cyaneus Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 573.

entellus Walker. Ohio.
Perilampus Entellus Walker, 1843. Ann. Mag. Nat. Hist. (1) 12: 103. ♂ ♀.

fulvicornis *fulvicornis* Ashmead. Que. to Fla., west to Calif. and B. C. Hosts: *Tetralopha scortealis* (Led.); *Ancylis comptana* (Froel.); *Carpocapsa pomonella* (L.); *Ecdytolopha insiticiana* Zell.; *Epiblema strenuana* (Wlkr.); *Grapholitha molesta* (Busck); *G. prunivora* (Walsh); *Rhyacionia frustrana* (Comst.); gall of *Gnorimoschema gallaesolidaginis* Riley; *G. operculella* (Zell.); *Keiferia glochinella* (Zell.); *Zenillia* sp.; *Apanteles epinotiae* Vier.; *A.* sp.; *Macrocentrus pallisteri* DeGant; *Meteorus trachynotus* Vier.; *M.* sp.; *Cremastus cooki* Weed.
Perilampis (!) ***fulvicornis*** Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 126. ♂.

fulvicornis *prothoracicus* Smulyan. N. H., Md., Va., La., Mich., Nebr., Wash. Host: *Carpocapsa pomonella* (L.).
Perilampus fulvicornis var. ***prothoracicus*** Smulyan, 1936. U. S. Natl. Mus. Proc. 83: 403. ♀.

gahani Smulyan. Colo., N. Mex.
Perilampus gahani Smulyan, 1936. U. S. Natl. Mus. Proc. 83: 401. ♀.

granulosus Crawford. N. J. to Ala., La., Tex., Kans. Host: *Gnorimoschema operculella* (Zell.).
Perilampus granulosus Crawford, 1914. Ent. Soc. Wash. Proc. 16: 73. ♂ ♀.

hyalinus Say. Sask., Man., Ont., Que.; throughout U. S. Hosts: ?*Chrysopa rufilabris* Burm.; *Lyctus striatus* Melsh.; *Euchaetias egle* (Drury); *Hyphantria* cunea (Drury); *Acronycta haustulifera* (A. and S.); *Harrisina americana* (Guér.); *Acrobasis caryae* Grote; *Dasypyga alternosquamella* Rag.; *Phlyctaenia extricalis* (Guen.); *Epiblema desertana* (Zell.); *E. scudderiana* (Clem.); ?*Rhyacionia* sp.; *Sarcophaga kellyi* Ald.; *Senotainia trilineata* (Wulp); *Achaetoneura euchaetiae* Web.; *A. frenchii* (Will.); *A. melalophae* Allen; *Compsilura concinnata* (Meig.); *Mericia aldrichi* (Tsn.); ?*M. ampelus* (Wlkr.); *Sturmia scutellata* (R. D.); *Neodiprion abbottii* (Leach); *N. lecontei* (Fitch) (probably secondary); *Diprion* sp.; *Apanteles hyphantriae* Riley; *A. melanoscelus* (Ratz.); *Apanteles* sp.; *Meteorus hyphantriae* Riley; *Microplitis croceipes* (Cress.); *Campoplex* sp.; *C. validus* (Cress.); *Hyposoter fugitivus* (Say); *H. fugitivus pacificus* Cush.; *H. pilosulus* (Prov.); *Phobocampe pallipes* (Prov.); *Dibrachys cavus* (Wlkr.).
Perilampus hyalinus Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 79.
Perilampus aciculatus Provancher, 1887. Addit. Corr. Faune Ent. Canad. Hym., p. 199. ♀. N. syn.
Biology: Smith, 1912. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 19: 34–63.—Smith, 1917. Psyche 24: 64–68.

muesebecki Smulyan. N. H., N. Y., Pa., D. C., Fla., Kans., Nebr., Colo.
Perilampus muesebecki Smulyan, 1936. U. S. Natl. Mus. Proc. 83: 407. ♂ ♀.

ocellatus Smulyan. Ga., Mo.
Perilampus ocellatus Smulyan, 1936. U. S. Natl. Mus. Proc. 83: 390. ♂ ♀.

platygaster Say. Ont., Que.; N. H. to N. C.; Ind., Ill., La., Tex., Kans., Colo. Hosts: *Harrisina americana* (Guér.); *Epiblema scudderiana* (Clem.); *Melittia* sp.; *Meteorus dimidiatus* (Cress.).
Perilampus platigaster (!) Say, 1836. Boston Jour. Nat. Hist. 1: 274.
Perilampus platygaster Riley, 1870. Mo. State Bd. Agr. Ann. Rpt. 5:87. Emend.
Biology: Strauss, 1916. U. S. Dept. Agr. Bul. 419: 10.

regalis Smulyan. N. C., Mo.
Perilampus regalis Smulyan, 1936. U. S. Natl. Mus. Proc. 83: 378. ♀.

robertsoni Crawford. Canada, Ill., Nebr., Colo.
Perilampus robertsoni Crawford, 1914. Ent. Soc. Wash. Proc. 16: 71. ♂ ♀.

rohweri Smulyan. Canada, N. J.
Perilampus rohweri Smulyan, 1936. U. S. Natl. Mus. Proc. 83: 396. ♂ ♀.

ruficornis (Fabricius). Europe; ?N. Y., ?N. J. Host: Larvaevorid on *Crambus vulgivagellus* Clem.
Cynips ruficornis Fabricius, 1793. Ent. System., v. 2, p. 103.
Diplolepis violacea Fabricius, 1804. Systema Piezatorum, p. 149.
Taxonomy: Lintner, 1883. Injurious Insects N. Y. Ann. Rpt. 1: 146–147.

similis Crawford. U. S. west of Mississippi R.; Alta. Hosts: *Acrobasis* sp.; ?*Homoeosoma electellum* (Hulst); *Loxostege sticticalis* (L.); *Eulophus* sp.
Perilampus similis Crawford, 1914. Ent. Soc. Wash. Proc. 16: 73. ♀.

stygicus Provancher. Que.; Maine to Va. and Ohio; La., Kans. Hosts: *Epiblema strenuana* (Wlkr.); *Macrocentrus* sp.
Perilampus stygicus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 406. ♀.

subcarinatus Crawford. N. Y., Ala., Tex., Nebr., Colo., Idaho, Calif.
Perilampus subcarinatus Crawford, 1914. Ent. Soc. Wash. Proc. 16: 70. ♀.
Perilampus bakeri Crawford, 1914. Ent. Soc. Wash. Proc. 16: 72. ♂ ♀.

tassoni Girault. Australia, ?Conn.
Perilampus tassoni Girault, 1922. Insecutor Inscitiae Menstruus 10: 39. ♀.
Taxonomy: Britton, 1938. Conn. State Geol. and Nat. Hist. Survey Bul. 60: 139.

tristis Mayr. Ont. Hosts: *Rhyacionia buoliana* (Schiff.); *Ascogaster quadridentata* Wesm.
Perilampus tristis Mayr, 1905. Zool.-Bot. Gesell. Wien. Verh. 55: 564, 566. ♂ ♀.
Biology: Bergold and Ripper, 1937. Ztschr. f. Parasitenk. 9: 394–417.
Morphology: Parker, 1924. Soc. Ent. France Ann. 93: 265, 275.

Family AGAONTIDAE

The members of this family live phytophagously in the flowers and fruits of figs.

Revision: Grandi, 1935. R. Ist. Super. Agr., Lab. Ent. Bol. 7: 214–240 (world cat.).

Genus BLASTOPHAGUS Gravenhorst

Blastophagus Gravenhorst, 1827 (1826). Übers. Arb. Schles. Gesell. f. Vaterland. Kultur, p. 23.
Type: (***Blastophagus grossorum*** Gravenhorst)=***B. psenes*** (Linnaeus). Monob.
Blastophaga Gravenhorst, 1829. Schles. Gesell. f. Vaterland. Kultur Beitr. Ent., p. 27. ?Emend.
Kradibia Saunders, 1883. Ent. Soc. London, Trans. pp. 20, 23.
Type: ***Kradibia cowani*** Saunders. Monob.

psenes (Linnaeus). Ariz., Calif. Host: Fruit of caprifigs.
Cynips Psenes Linnaeus, 1758. Syst. Nat., ed. 10, p. 554. *Nom. nud.*
Cynips Psenes Linnaeus, 1767. Syst. Nat., ed. 12, tom. 1, pars 2, p. 919.
Blastophaga grossorum Gravenhorst, 1829. Beitr. Ent., besonders in Bezug auf die Schles. Fauna, v. 1, pp. 27–29.
Biology: Grandi, 1929. R. Inst. Super. Agr., Lab. Ent. Bol. 2: 1–145.—Quayle, 1938. Insects of Citrus and Other Subtropical Fruit, pp. 408–416.
Morphology: Grandi, 1929. R. Ist. Super. Agr., Lab. Ent. Bol. 2: 1–145.

Genus SECUNDEISENIA Schulz

Eisenia Ashmead, 1904. Carnegie Mus., Mem. 1: 233. Preocc.
Type: ***Eisenia mexicana*** Ashmead. Monob.
Eiseniella Ashmead, 1906. Ent. Soc. Wash. Proc. 8: 31. N. name. Preocc.
Secundeisenia Schulz, 1906. Spolia Hym., p. 146. N. name.
Allopale Strand, 1911. Arch. f. Naturgesch. 77: 210. N. name.

mexicana (Ashmead). Fla. Hosts: *Ficus aurea* wild sp. of *Ficus*.
Eisenia mexicana Ashmead, 1904. Carnegie Mus. Mem. 1: 233. ♀.
Taxonomy: Gahan and Peck, 1946. Jour. Wash. Acad. Sci. 36: 315.

Family TORYMIDAE

Subfamily IDARNINAE

Genus COLYOSTICHUS Mayr

Colyostichus Mayr. 1885. Zool.-Bot. Gesell. Wien Verh. 35: 157–158, 237.
Type: ***Colyostichus longicauda*** Mayr. Desig. by Ashmead, 1904.

brevicauda Mayr. Fla. Host: *Ficus altissimus*.
Colyostichus brevicaudis Mayr, 1885. Zool.-Bot. Gesell. Wien, Verh. 35: 239. ♀.

Genus SYCOPHILA Walker

Sycophila Walker, 1871. Notes on Chalcid, v. 4, p. 63.
Type: ***Sycophila decatomoides*** Walker. Desig. by Ashmead, 1904.
Isanisa Walker, 1875. Entomologist 8: 15.
Type: ***Sycophila decatomoides*** Walker. Monob.
Pseudisa Walker, 1875. Entomologist 8: 15.
Type: ***Pseudisa smicroides*** Walker. Monob.

bicolor Ashmead. Fla. Host: *Ficus pedunculata.*
Sycophila bicolor Ashmead, 1900. Ent. Soc. London Trans., pp. 252, 335. ♂ ♀.

incerta Ashmead. Fla. Host: *Ficus pedunculata.*
Sycophila incerta Ashmead, 1900. Ent. Soc. London Trans., pp. 253, 335. ♀.

Genus IDARNES Walker

Idarnes Walker, 1843. Ann. Mag. Nat. Hist. 12: 47.
Type: *Idarnes carme* Walker. Monob.
Idarnomorpha Girault, 1915. Queensland Mus. Mem. 4: 281.
Type: *Idarnomorpha subaenea* Girault. Monob.

carme Walker. Fla. Host: *Ficus aurea.*
Idarnes Carme Walker, 1843. Ann. Mag. Nat. Hist. 12: 47. ♀.

Subfamily TORYMINAE

Revisions: Crawford, 1914. Ent. Soc. Wash. Proc. 16: 122–126.—Hoffmeyer, 1930. Ent. Meddel. 17: 232–285.
Phylogeny: Breland, 1938. N. Y. Ent. Soc. Jour. 46: 355–399.

Genus ALLOTORYMUS Huber

Allotorymus Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 104.
Type: *Syntomaspis splendens* Provancher. Monob.

splendens (Provancher). Ont., Colo., B. C.
Syntomaspis splendens Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., 196. ♂ ♀.
Taxonomy: Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 105. ♂ ♀.

Genus TORYMUS Dalman

Callimome Spinola, 1811. Paris Mus. Hist. Nat. Ann. 17: 146, 148. Suppressed by Internatl. Comn. Zool. Nomencl. Op. 155, 1944.
Misocampe Latreille, 1818. Nouv. Dict. Hist. Nat., ed. 2, pp. 21, 213. Suppressed by Internatl. Comn. Zool. Nomencl. Op. 155, 1944.
Torymus Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 135, 178.
Type: *Ichneumon bedeguaris* Linnaeus. Desig. by Internatl. Comn. Zool. Nomencl. Op. 155, 1944.
Misocampus Stephens, 1829. Cat. Brit. Ins. Mandibulata, p. 395. Emend.
Syntomaspis Foerster, 1856. Hym. Stud., v. 2, pp. 43, 44.
Type: (*Torymus eurynotus* Foerster)=*Torymus cyaneus* Boheman. Desig. by Gahan and Fagan, 1923.
Hemitorymus Ashmead, 1904. Carnegie Mus. Mem. 1: 243, 400.
Type: *Hemitorymus thoracicus* Ashmead. Monob.
Revisions: Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 1–114.—Hobbs, 1948. Pan-Pacific Ent. 24: 95–96.

The species of this genus are usually associated with plant galls.

advenus (Osten Sacken). Conn., N. J., N. Y., D. C., N. C., Fla., La. Hosts: *Asphondylia rudbeckiae conspicua* O. S.; itonidid gall in blossom of *Vernonia noveboracensis; Procecidochares atra* (Loew); ?*Andricus petiolicola* (O. S.); ?*Callirhytis ventricosa* (O. S.); ?*Diastrophus nebulosus* (O. S.).
Callimome advena Osten-Sacken, 1870. Amer. Ent. Soc. Trans. 3: 59. ♂ ♀.

aeneoscapus (Huber), n. comb. Idaho.
Callimome aeneoscapum Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 35. ♀.

aeneus (Ashmead). Ill., Fla. Hosts: *Belonocnema treatae* Mayr; *Disholcaspis omnivora* (Ashm.); *D. virens* (Ashm.); *Dryocosmus imbricariae* (Ashm.).
Callimome aenea Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. xxxiii. ♂ ♀.
Callimome dryorhizoxeni Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xiii. ♀.
Torymus omnivorae Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 188. ♂ ♀.

aereus (Huber), n. comb. D. C., Va., Fla., Mo., Tex., Ariz. Hosts: Galls of *Disholcaspis fasciata* Bass. and galls on *Quercus laurifolia, Q. macrocarpa,* and *Q. schneckii.*
Callimome aereum Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 71. ♂ ♀.

aeus (Walker). N. Y., N. J.
Callimome Aea Walker, 1843. Ann. Mag. Nat. Hist. (1) 12: 104. ♀.

alamedensis (Huber), n. comb. Conn., Calif., Oreg. Hosts: Galls on currant and *Rubus parviflorus.*
Callimome alamedensis Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 28. ♂ ♀.

alaskensis (Huber), n. comb. Alaska.
Callimome alaskensis Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 31. ♀.

albitarsis (Huber), n. comb. Ill., Kans. Hosts: *Desmoris fulvus* (Lec.); *Asphondylia globulus* O. S.; gall on *Oligoneuron rigidum.*
Callimome albitarse Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 80. ♀.
Biology: Breland, 1939. Ent. Soc. Amer. Ann. 32: 719, 724.

amelanchieris (Cushman), n. comb. Pa., W. Va., Minn. Hosts: *Megastigmus amelanchieris* Cush.; gall on *Amelanchier canadensis.*
Syntomaspis amelanchieris Cushman, 1918 (1917). Ent. Soc. Wash. Proc. 19: 82. ♂ ♀.
Biology: Milliron, 1949. Amer. Midland Nat. 41: 393–395.

anthomyiae Ashmead. Ga., Fla. Hosts: *Chalcodermus inaequicollis* Horn; ?muscid leaf miner (probably *Pegomya* sp.) of cultivated plant.
Torymus anthomyiae Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 189. ♀.

asteridis (Huber). N. H., Conn. Host: Itonidid gall on aster.
Callimome asteridis Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 43. ♂ ♀.

atriplicis (Huber), n. comb. Calif. Host: Itonidid on *Atriplex canescens.*
Callimome atriplicis Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 44. ♀.

aucupariae (Rodzianko). Minn. Host: Probably *Megastigmus aucupariae* Ratz.
Syntomaspis aucupariae Rodzianko, 1908. Soc. Imp. Nat. Moscou, Bul. (n. s.) 21: 602. ♂ ♀.

axillaris Ashmead. W. V., Va.
Torymus axillaris Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 333. ♀.

baccharidis (Huber), n. comb. Conn., Calif. Host: Itonidid on *Baccharis.*
Callimome baccharidis Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 46. ♂ ♀.

bedeguaris (Linnaeus). ?Colo. Host: *Diplolepis rosae* (L.).
Ichneumon Bedeguaris Linnaeus, 1758. Syst. Nat., ed. 10, p. 567. ♀.
Taxonomy: Hoffmeyer, 1930. Ent. Meddel. 17: 238, 249.

bicoloratus (Huber), n. comb. N. Mex., Ariz. Hosts: *Amphibolips trizonata* Ashm.; *Diplolepis bicolor* (Harr.).
Callimome bicoloratum Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 73. ♂ ♀.

brevis Breland. Tex. Host: *Trishormomyia helianthi* (Brodie).
?***Torymus helianthi*** Brodie, 1894. Biol. Rev. Ontario 1: 45. ♀.
Torymus brevis Breland, 1948. Ent. Soc. Wash. Proc. 50: 57. ♂ ♀.
Biology: Breland, 1948. Ent. News 59: 230.

brodiei (Ashmead). Ont., Ill. Hosts: *Rhabdophaga cornu* Walsh; *Acraspis pezomachoides* (O. S.).
Syntomaspis Brodiei Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 187. ♂ ♀.

californicus californicus (Ashmead). Conn., Fla., Calif., Oreg. Hosts: *Andricus californicus* Ashm.; *A. lasius* (Ashm.); *Disholcaspis corallina* (Bass.); *D. plumbella* Kinsey; *D. truckeensis* Ashm.; *D. simulata* Kinsey; *D.* sp. on *Quercus douglasi*; *Besbicus mirabilis* Kinsey; *Callirhytis agrifoliae* (Ashm.); *C. pomiformis* (Ashm.); *C.* sp. on *Quercus chrysolepis*; *Heteroecus pacificus* (Ashm.); pimply gall on *Quercus douglasi*; ?strawberry gall on *Quercus dumosa.*
Syntomaspis californica Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 127. ♀.

californicus subdolus (Huber), n. comb. Conn., Calif. Hosts: *Disholcaspis chrysolepidis* (Beut.); *D. corallina* (Bass.); *D. truckeensis* Ashm.
Callimome californicum var. ***subdolum*** Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 85. ♂ ♀.

capillaceus (Huber), n. comb. Conn., Ariz. Host: Itonidid gall on *Artemisia* stem.
Callimome capillaceum Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 74. ♀.

capite (Huber), n. comb. D. C.
Callimome capite Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 32. ♂ ♀.

castanopsidis (Huber), n. comb. Conn., Calif. Hosts: ?*Dryocosmus castanopsidis* (Beut.); galls on *Quercus dumosa* and *Q. lobata.*
Callimome castanopsidis Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 64. ♂ ♀.

cecidomyiae (Walker). Ont., Kans. Host: *Itonida spongivora* (Wlkr.).
Callimome Cecidomyiae Walker, 1844. Ann. Mag. Nat. Hist (1) 14: 15. ♀.

chrysochlorus (Osten Sacken). New England, N. J., Ohio, Ill., Colo., N. Mex., Ariz., Calif., Oreg., Sask. Hosts: *Diplolepis arefacta* (Gill.); *D. bassetti* (Beut.); *D. californica* (Beut.); *D. dichlocera* (Harr.); *D. fusiformans* (Ashm.); *D. ignota* (O. S.); *D. multispinosa* (Gill.); *D. radicum* (O. S.); *D. variabilis* (Bass.); cynipid woody rose gall.
Callimome chrysochlora Osten Sacken, 1870. Amer. Ent. Soc. Trans. 3: 63. ♂ ♀.
Callimome solitaria Osten Sacken, 1870. Amer. Ent. Soc. Trans. 3: 64. ♀.

cinerosus (Huber), n. comb. Tex. Hosts: *Amphibolips* sp. on *Quercus virginiana; Disholcaspis cinerosa* (Bass.).
Callimome cinerosum Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 84. ♀.

citripes (Huber), n. comb. Colo. Host: *Euaresta tricolor* Doane.
Callimome citripes Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 48. ♂ ♀.

coccineus (Huber), n. comb. Maine, Mass., Conn., Va. Hosts: *Amphibolips confluentus* (Harr.); *A. spongifica* (O. S.).
Callimome coccineum Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 68. ♀.

coeruleus (Ashmead). N. J., Fla., Colo. Hosts: *Amphibolips cinerea* Ashm. galls on *Rubus* sp.
Callimome coerulea Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. xxxiii. ♂ ♀.

coloradensis (Huber), n. comb. Conn., Kans., Colo. Hosts: Itonidid on *Artemisia; Dasyneura* sp. on *Helianthus.*
Callimome coloradensis Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 49. ♂ ♀.

cruentatus (Huber), n. comb. Conn. Host: Cynipid gall on leaf of *Quercus virginiana.*
Callimome cruentatum Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 50. ♂ ♀.

dasyneurae (Huber), n. comb. Ohio. Host: *Dasyneura almea* Felt.
Callimome dasyneurae Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 56. ♂ ♀.

druparum Boheman. Ont., Que., N. S., Maine, Vt., N. Y., Conn., Pa., Va., Ohio, Mich., B. C. Hosts: Seeds of apple, *Crataegus, Malus silvestris, M.* sp., *Pyrus* spp., *Sorbus intermedia,* and ?*S. latifolia.*
Torymus druparum Boheman, 1834 (1833). Svenska Vetensk. Acad. Handl. 54: 361. ♀.

Biology: Crosby, 1909. N. Y. (Cornell) Agr. Expt. Sta. Bul. 265: 369–375.—Cushman, 1916. Jour. Agr. Res. 7: 487.—Knight, 1922. N. Y. (Cornell) Agr. Expt. Sta. Bul. 410: 490.—Lathrop, 1936. Maine Agr. Expt. Sta. Bul. 384: 392.—Hammer, 1939. Jour. Econ. Ent. 32: 259–264.—Lathrop and Dirks, 1944. Jour. Econ. Ent. 37: 199–204.

dryophanta (Ashmead), n. comb. Fla. Host: *Bassettia catesbaei* (Ashm.).
Syntomaspis dryophantae Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 187. ♀.

dubiosus (Huber), n. comb. D. C.
Callimome dubiosum Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 24. ♀.

duplicatus (Huber), n. comb. Que., Conn., Va., Ohio. Host: *Diastrophus cuscutaeformis* O. S.
Callimome duplicatum Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 27. ♂ ♀.

durus (Osten Sacken). Conn., D. C. Host: *Diplosis caryae* O. S.
Callimome dura Osten Sacken, 1870. Amer. Ent. Soc. Trans. 3: 59. ♂.

ebrius (Osten Sacken). Conn., N. J., D. C., Va., Ohio, Tex. Host: *Lasioptera vitis* O. S.
Callimome ebria Osten Sacken, 1870. Amer. Ent. Soc. Trans. 3: 58. ♂ ♀.

elegantissimus (Ashmead), n. comb. Ont., Fla. Hosts: *Disholcaspis virens* (Ashm.); ?*Xanthoteras forticorne* (O. S.).
Callimome elegantissima Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. xxxiv. ♀.

fagopyrum (Provancher). Ont., Que.; Maine to Fla.; Mich., Kans., Colo. Hosts: *Dasyneura serrulatae* O. S.; *Rhabdophaga salicifolia* Felt; *Diastrophus cuscutaeformis* O. S.; *D. nebulosus* (O. S.); *D turgidus* Bass.; *Disholcaspis virens* (Ashm.).
Callimome brevicauda Osten Sacken, 1870. Amer. Ent. Soc. Trans. 3: 62. ♂ ♀. Preocc.
Callimone (!) ***fagopirum*** Provancher, 1881 (Sept.). Nat. Canad. 12: 291. ♂ ♀.
Callimome Sackenii Ashmead, 1881 (Oct.). Amer. Ent. Soc. Trans. 9: Proc. p. xxxii. N. name.
Callimome virentis Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. xxxiv. ♀.
Callimome brevissimicauda Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. xxxiii. ♀.
Callimome fagopyrum Provancher, 1883. Petite Faune Ent. Canada 2, index only. Emend.
Torymus ostensackenii Dalla Torre, 1898. Cat. Hym. v. 5, p. 311. N. name.

ferrugineipes (Huber), n. comb. Conn., Fla.
Callimome ferrugineipes Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 33. ♂ ♀.

flavicoxa (Osten Sacken). Ont., Que., Maine, N. H., Mass., Conn., N. J., Va. Hosts: *Belonocnema treatae* Mayr; *Diastrophus nebulosus* (O. S.); *Diplolepis radicum* (O. S.); *Liposthenes gelechomae* (L.).
Callimome flavicoxa Osten Sacken, 1870. Amer. Ent. Soc. Trans. 3: 61. ♀.

flaviventris Ashmead. Conn., Kans.
Torymus flaviventris Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. IV, ♀.

floridensis Peck, n. name. Fla. Hosts: *Amphibolips fuliginosa* Ashm.; gall on *Quercus phellos* or *Q. laurifolia*.
Callimome robustum Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 72. ♀. Preoccupied by *T. robustus* Ratzeburg, 1852.

fullawayi (Huber), n. comb. Calif., Oreg. Hosts: *Andricus californicus* Ashm.; *Callirhytis agrifoliae* (Ashm.); *Dryocosmus bicornis* (McC. and Egb.); gall on *Quercus douglasi*.
Syntomaspis caerulea Fullaway, 1912. N. Y. Ent. Soc. Jour. 20: 275. ♀. Preocc.
Callimome fullawayi Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 19. N. name.
Taxonomy: Breland, 1939. Brooklyn Ent. Soc. Bul. 34: 87.

fulvus (Huber), n. comb. Nebr.
Callimome fulvum Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 26. ♀.

gahani (Huber), n. comb. Oreg. Host: Cynipid on *Quercus garryana*.
Callimome gahani Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 69. ♂ ♀.

giganticus (Huber). Calif., Oreg. Hosts: ?*Besbicus mirabilis* (Kinsey).
Callimome giganticum Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 65. ♂ ♀.

hainesi Ashmead. Tex., Ariz., Calif. Host: *Asphondylia websteri* Felt.
Torymus hainesi Ashmead, 1893. Ent. News 4: 278. ♀.
Callimome asphondyliae Gahan, 1919. Preocc.

helianthi Brodie. Ont. Host: *Diplosis helianthi* Brodie.
Torymus helianthi Brodie, 1894. Biol. Rev. Ontario 1: 45. ♀.
?Torymus brevis Breland, 1948. Ent. Soc. Wash. Proc. 50: 57. ♂ ♀.
Taxonomy: Breland, 1948. Ent. Soc. Wash. Proc. 50: 58.

hircinus Ashmead. W. Va., Va. Host: Twig gall on willow.
Torymus hircinus Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 333. ♂ ♀.

hirsutus (Huber), n. comb. Ariz. Host: Twig gall on *Quercus* sp.
Callimome hirsutum Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 74. ♂ ♀.

holcaspoideus (Ashmead), n. comb. Brazil; ?Conn.
Syntomaspis holcaspoidea Ashmead, 1904. Carnegie Mus. Mem. 1: 397. ♂ ♀.

huberi (Hoffmeyer), n. comb. Tex. Host: ?Itonidid gall on *Celtis* sp.
Callimome tarsale Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 76. ♂ ♀. Preocc.
Callimome huberi Hoffmeyer, 1929. Ent. Meddel. 16: 333. N. name.

kinseyi (Huber), n. comb. Utah, Calif. Hosts: *Trypeta* sp. on *Chrysothamnus viscidiflorus*; dipteron on *Artemisia* sp.
Callimome kinseyi Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 44. ♂ ♀.

koebelei (Huber), n. comb. Calif. Host: Itonidid gall on *Baccharis pilularis*.
Callimome koebelei Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 52. ♂ ♀.

lissus (Walker), n. comb. Fla.
Callimome lissus Walker, 1843. Soc. Ent. France Ann. (2) 1: 150. ♂.

lividus (Ashmead). Fla., La.
Callimome lividus Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xiii. ♀.

longicauda (Provancher). Ont., Que.
Callimome longicauda Provancher, 1883. Nat. Canad. 14: 34. ♀.

longior Brodie. Ont. Host: *Diplosis helianthi* Brodie.
Torymus longior Brodie, 1894. Biol. Rev. Ontario 1: 45. ♀.

longistigma (Huber), n. comb. Calif. Host: Woody itonidid gall on willow.
Callimome longistigmum Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 47. ♂ ♀.

magnificus (Osten Sacken). N. H., N. Y., Conn., N. J., D. C., Fla., Kans., Colo. Host: *Diplolepis radicum* (O. S.).
Callimome magnifica Osten Sacken, 1870. Amer. Ent. Soc. Trans. 3: 62. ♂ ♀.

melanocerae (Ashmead), n. comb. D. C., Va., Ga., Fla., Kans. Hosts: *Amphibolips citriformis* Ashm.; *A. globulus* Beut.; *A. inanis* (O. S.); *A. melanocera* Ashm.; *A. spongifica* (O. S.); *Andricus flocci* (O. S.); *Disholcaspis quercus-globulus* (Fitch); *D. terrestris* Weld; *Xanthoteras politum* (Bass.).
Callimome melanocerae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xiii. ♀.
Callimome citriformi (!) Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xiii. ♀.
Syntomaspis citriformis Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 187. Emend.

mellipes (Huber), n. comb. Mass., Conn. Host: Itonidid on *Populus* sp.
Callimome mellipes Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 23. ♂ ♀.

mexicanus Ashmead. Ariz. Host: Cynipid gall.
Torymus Mexicanus Ashmead, 1899. Ent. News 10: 195. ♂ ♀.

minutissimus (Huber), n. comb. Calif. Host: Twig gall on *Quercus* sp.
Callimome minutissimum Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 78. ♀.

missouriensis (Huber), n. comb. N. C., Ind., Mo. Hosts: Itonidid stem gall on *Rubus*; cynipid gall.

Callimome missouriensis Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 42. ♂ ♀.

multicolor (Huber), n. comb. Calif. Host: Gall on *Ephedra* sp.
Callimome multicolor Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 51. ♀.

neuroterus Ashmead. Fla. Host: *Neuroterus minutissimus* Ashm.
Torymus neuroterus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 188. ♂.

obscurus (Breland), n. comb. Ill., Ind., Ky., Tenn., Ala., Miss., Tex., Mo. Host: *Lasioptera murtfeldtiana* Felt.
Callimome obscura Breland, 1939. Ent. Soc. Amer. Ann. 32: 719, 721. ♂ ♀.
Biology: Satterthwait, 1948. Jour. Econ. Ent. 41: 729–730.

occidentalis (Huber), n. comb. Calif. Host: Dipterous galls on *Juniperus occidentalis.*
Callimome occidentale Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 79. ♂ ♀.

ochreatus Say. Ind. Host: In *Liatris* receptacle.
Torymus ochreatus Say, 1836 (1835). Boston Jour. Nat. Hist. 1: 275. ♂ ♀.

osborni (Huber), n. comb. Wyo. Host: Cynipid on *Rosa* sp.
Callimome osborni Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 93. ♂ ♀.

oviperditor (Gahan), n. comb. Kans. Hosts: *Melampsalta calliope* (Wlkr.); *Tibicen aurifera* Say.
Syntomaspis oviperditor Gahan, 1927. Ent. Soc. Wash. Proc. 29: 99–100. ♂ ♀.

pachypsyllae (Ashmead), n. comb. Presumably Kans. Host: *Pachypsylla venusta* O. S.
Monodontomerus pachypsyllae Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. III. ♂ ♀.

pavidus Say. Ind.
Torymus pavidus Say, 1836. Boston Jour. Nat. Hist. 1: 275. ♂.

perplexus (Huber). Oreg. Host: *Besbicus mirabilis* (Kinsey).
Callimome perplexum Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 49. ♀.

persimilis Ashmead. W. Va., Va. Host: Itonidid on willow.
Torymus persimilis Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 334. ♀.

pilularidis (Huber), n. comb. Conn., Calif. Host: *Prosoma* sp. on *Baccharis pilularis.*
Callimome pilularidis Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 45. ♂ ♀.

prunicola (Huber), n. comb. N. Mex.
Callimome prunicola Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 91. ♀.

racemariae (Ashmead), n. comb. N. Y. to Fla., Ala., Tex., Colo., Ill. Hosts: *Amphibolips confluentus* (Harr.); *A. fuliginosa* Ashm.; *A. gainesi* Bass.; *A. inanis* (O. S.); *A. prunus* Cress.; *A. racemaria* Ashm.; *Disholcaspis cinerosa* (Bass.); *D. quercus-globulus* (Fitch); *D. terrestris* Weld; *Dryocosmus imbricariae* (Ashm.).
Callimome racemareae Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. xxxiii. ♂ ♀.
Syntomaspis racemariae Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 187. Emend.
Biology: Balduf, 1926. Canad. Ent. 58: 137–143, 163.
Morphology: Snodgrass, 1910. U. S. Natl. Mus. Proc. 39: 65.

rhoditidis (Huber), n. comb. Mass. Host: *Diplolepis* sp. on *Rosa.*
Callimome rhoditidis Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 34. ♂ ♀.

rohweri (Huber), n. comb. Conn., Calif. Hosts: ? *Harmolita* in *Lolium multiflorum* and *L. temulentum.*
Callimome rohweri Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 58. ♂ ♀.

rosae (Huber), n. comb. Colo. *Diplolepis* sp. on *Rosa fendleri.*
Callimome rosae Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 35. ♀.

rubenidis (Huber), n. comb. Colo. Host: *Disholcaspis rubens* (Gill.).
Callimome rubenidis Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 78. ♂ ♀.

rudbeckiae Ashmead. Ont., Colo. Hosts: Itonidid on *Desmodium grandiflorum*

(Walt.); gall on *Rudbeckia* sp.
Torymus rudbeckiae Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 26, 45. ♂ ♀.

sativae (Huber), n. comb. Ariz. Hosts: *Asphondylia websteri* Felt; *Rhabdophaga siliqua* Walsh.
Syntomaspis medicaginis Gahan, 1919. Ent. Soc. Amer. Ann. 12: 162. Preocc.
Callimome sativae Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 77. ♂ ♀. N. name.

scalaris (Huber), n. comb. Ariz., Calif. Host: *Pachypsylla celtidisgemma* Riley.
Callimome scalaris Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 21. ♂ ♀.

solidaginis (Huber), n. comb. N. Y., Conn., N. C. Host: Itonidid.
Callimome solidaginis Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 92. ♂ ♀.

splendidulus Dalla Torre. Ont., Colo. Hosts: *Rhabdophaga cornu* Walsh; *R. siliqua* Walsh.
Callimome splendidus Walker, 1844. Ann. Mag. Nat. Hist. (1) 14: 14. ♀. Preocc.
Torymus splendidulus Dalla Torre, 1898. Cat. Hym., v. 5, p. 313. N. name.

strobiloides (Huber), n. comb. Ohio. Hosts: *Rhabdophaga strobiloides* (Walsh); *Salix* gall.
Callimome strobiloides Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 40. ♀.

sulcatus (Huber), n. comb. Calif. Host: Cynipid gall on *Quercus pumila.*
Callimome sulcatum Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 22. ♀.

superbus (Provancher), n. comb. Que.
Cleonymus superbus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 407. ♀.

texanus (Hoffmeyer), n. comb. Tex., Ariz. Host: *Atrusca aggregata* (Weld); *A. bella* (Bass.); *A. simulatrix* Kinsey; *A. vanescens* Kinsey; *Disholcaspis colorado* (Gill.).
Callimome texanum Hoffmeyer, 1930. Ent. Meddel. 17: 213. ♂ ♀.
Taxonomy: Breland, 1939. Brooklyn Ent. Soc. Bul. 34: 87.

thalassinus (Crosby), n. comb. N. Y., Conn., Ohio, Minn. Host: *Harmolita* sp. "from timothy and orchard grass."
Syntomaspis thalassinus Crosby, 1908. Canad. Ent. 40: 43. ♂ ♀.

theon (Walker). Fla.
Callimome theon Walker, 1843. Soc. Ent. France Ann. (2) 1: 149. ♀.

thompsoni Fyles. Que. Host: Plum fruit.
Torymus Thomsoni Fyles, 1904 (1903). Ent. Soc. Ontario Ann. Rpt. 34: 10.
Torymus thompsoni Fyles, 1916 (1915). Ent. Soc. Ontario Ann. Rpt. 46: 55. Emend.

tricolor (Huber), n. comb. Tex. Host: *Asphondylia* sp.
Callimome tricolor Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 96. ♂ ♀.

tubalaris (Huber), n. comb. Colo.
Callimome tubularis Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 39. ♂ ♀.

tubicola (Osten Sacken). Que., Mass. to N. C. and Ohio; Mo., La., Tex., Calif. Hosts: *Amphibolips spongifica* (O. S.); *Andricus californicus* Ashm.; *A. flocci* (O. S.); *A. petiolicola* (O. S.); *Atrusca simulatrix* (Kinsey); *Callirhytis operator* (O. S.); *C. seminator* (Harr.); *C. tubicola* (O. S.); *Disholcaspis colorado* (Gill.) var.; *D. corallina* (Bass.); *D. plumbella* Kinsey; *D. quercus-globulus* (Fitch); *D. simulata* Kinsey; *D. simulata vancouverensis* Kinsey.
Callimome tubicola Osten Sacken, 1870. Amer. Ent. Soc. Trans. 3: 60. ♂ ♀.

umbilicatus (Gahan), n. comb. Conn., Ariz., Fla. Hosts: Itonidid galls on *Atriplex canescens* and on *Suaeda* sp.
Syntomaspis umbilicata Gahan, 1919. Ent. Soc. Amer. Ann. 12: 163. ♂ ♀.

warreni (Cockerell), n. comb. N. Y., N. C., Tex., Colo., Ariz. Hosts: *Antron dumosae* (Kinsey); *Disholcaspis cinerosa* (Bass.); *D. colorado* (Gill.); *D. mamma* (Cress.); *D. quercus-globulus* (Fitch); *D. rubens* (Gill.); *D. spongiosa* (Karsch).

Syntomaspis warreni Cockerell, 1911. Ent. News 22: 82. ♀.

xanthopus (Schulz), n. comb. Kans. Host: Itonidid on cedar.
Megastigmus? flavipes Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. III. ♂. Preocc.
Megalostigmus xanthopus Schulz, 1906. Spolia Hym., p. 147. N. name.
Torymus abortus Crosby, 1914. Ent. News 25: 27. ♂. N. name.

Genus DIOMORUS Walker

Diomorus Walker, 1834. Ent. Mag. 2: 159.
Type: (***Diomorus nobilis*** Walker)=***Torymus armatus*** Boheman. Monob.
Dihomerus.Schulz, 1906. Spolia Hym., p. 148. Emend.

biorhizae Ashmead. Ont. Host: *Xanthoteras forticorne* (O. S.).
Diomorus biorhizae Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 186. ♀.

viridis (Provancher), n. comb. Que.
Haltichella viridis Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 192. ♀.

zabriskiei Cresson, emend. N. Y., N. J., W. Va., Kans., Calif., B. C. Hosts: *Ectemnius lapidarius* (Panz.); *E. stirpicola* (Pack.); *Ceratina dupla* Say.
Diomorus zabriskii (!) Cresson, 1878. Psyche 2: 189. ♀.

Genus PHYSOTHORAX Mayr

Physothorax Mayr, 1885. Zool.-Bot. Gesell. Wien, Verh. 35: 159, 196.
Type: ***Physothorax disciger*** Mayr. Desig. by Gahan and Fagan, 1923.

pallidus Ashmead. Fla. Host: *Ficus laevigata.*
Physothorax pallidus Ashmead, 1900. Ent. Soc. London Trans., p. 254. ♂ ♀.

russelli Crawford. Fla. Host: *Ficus aurea.*
Physothorax russelli Crawford, 1910 (1909). Ent. Soc. Wash. Proc. 11: 204. ♀.

Subfamily ERIMERINAE

Genus ERIMERUS Crawford

Erimerus Crawford, 1914. Ent. Soc. Wash. Proc. 16: 123.
Type: ***Torymus wickhami*** Ashmead. Monob.

wickhami (Ashmead). Utah. Host: Galls on *Hilaria.*
Torymus wickhami Ashmead, 1904. Ent. News. 15: 302. ♀.
Taxonomy: Crawford, 1914. Ent. Soc. Wash. Proc. 16: 123.

Genus PSEUDERIMERUS Gahan

Pseuderimerus Gahan, 1919. U. S. Natl. Mus. Proc. 55: 124.
Type: ***Pseuderimerus mayetiolae*** Gahan. Monob.

femoratus Gahan. Calif. Host: *Phytophaga destructor* (Say).
Pseuderimerus femoratus Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 32–33. ♀.

mayetiolae Gahan. Calif. Host: *Phytophaga destructor* (Say).
Pseuderimerus mayetiolae Gahan, 1919. U. S. Natl. Mus. Proc. 55: 125. ♂ ♀.
Biology: Packard, 1928. U. S. Dept. Agr. Tech. Bul. 81: 14.—Gahan, 1933. U. S Dept. Agr. Misc. Pub. 174: 30–32.
Taxonomy: Hill and Pinckney, 1940. U. S. Dept. Agr. Tech. Bul. 715: 10–13.

semiflavus Gahan. Calif. Host: *Phytophaga destructor* (Say).
Pseuderimerus semiflavus Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 33 ♀.

Subfamily MONODONTOMERINAE

Revision: Crawford, 1914. Ent. Soc. Wash. Proc. 16: 123–124.

Genus LIODONTOMERUS Gahan

Lochites Foerster, 1856. Hym. Stud., v. 2, pp. 43, 44, 120. Preocc.
Type: ***Lochites papaveris*** Foerster. Monob.
Liodontomerus Gahan, 1914. U. S. Natl. Mus. Proc. 48: 159. N. syn.
Type: ***Liodontomerus perplexus*** Gahan. Monob.
Lochitisca Ghesquière, 1946. Rev. Zool. Bot. Africaines 34: 368. N. name. N. syn.

insuetus Gahan. Kans., N. Mex., Ariz. Host: *Bruchophagus gibbus* (Boh.).
Liodontomerus insuetus Gahan, 1917. U. S. Natl. Mus. Proc. 53: 208. ♀.

longfellowi (Girault), n. comb. Minn., S. Dak., Idaho, Oreg. Host: *Bruchophagus gibbus* (Boh.).
Idiomacromerus longfellowi Girault, 1917 (May 14). Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 8. ♂ ♀.
Liodontomerus secundus Gahan, 1917 (May 26). U. S. Natl. Mus. Proc. 53: 208. ♂ ♀. N. syn.
Biology: Urbahns, 1919. Jour. Agr. Res. 16: 169–170.

perplexus Gahan. Iowa, S. Dak., Utah, Ariz., Calif. Host: *Bruchophagus gibbus* (Boh.).
Liodontomerus perplexus Gahan, 1914. U. S. Natl. Mus. Proc. 48: 159. ♂ ♀.
Biology: Urbahns, 1920. U. S. Dept. Agr. Bul. 812: 17–18.—Sorenson, 1930. Utah Agr. Expt. Sta. Bul. 218: 27–32.

punctatus (Ashmead), n. comb. Fla.
Lochites punctata Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 185. ♂.

Genus IDIOMACROMERUS Crawford

Idiomacromerus Crawford, 1914. Ent. Soc. Wash. Proc. 16: 124.
Type: ***Idiomacromerus bimaculipennis*** Crawford. Monob.

bimaculipennis Crawford. Kans., Utah. Host: *Eurytoma seminis* Bugbee.
Idiomacromerus bimaculipennis Crawford, 1914. Ent. Soc. Wash. Proc. 16: 124. ♀.

Genus PLATYKULA Huber

Platykula Huber, 1927. U. S. Natl. Mus. Proc. 70 (14): 106.
Type: ***Syntomaspis albihirta*** Ashmead. Monob.

albihirta (Ashmead). Fla.
Syntomaspis albihirta Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 187. ♀.

Genus DIMEROMICRUS Crawford

Dimeromicrus Crawford, 1910. U. S. Natl. Mus. Proc. 38: 127.
Type: ***Dimeromicrus ashmeadi*** Crawford. Monob.

cecidomyiae (Ashmead). Fla., Tex. Host: Itonidid on *Baccharis halimifolia*.
Megastigma (!) ***cecidomyiae*** Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 185. ♂ ♀.
Lochites auriceps Ashmead, 1894. Linn. Soc. London, Jour. Zool. 25: 153. ♂ ♀.
Taxonomy: Milliron, 1949. Amer. Midland Nat. 41: 347.

smithi (Schread), n. comb. Conn. Host: Gall on *Caryomyia*.
Lochites smithi Schread, 1937. Brooklyn Ent. Soc. Bul. 32: 102. ♂ ♀.

Genus MONODONTOMERUS Westwood

Monodontomerus Westwood, 1833. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 2: 443.
Type: ***Monodontomerus obscurus*** Westwood. Monob.
Paroligosthenus Cameron, 1913 (1912). Indian Forest Rec. 4: 94.
Type: ***Paroligosthenus trichiopthalmus*** Cameron. Monob.
Revision: Gahan, 1941. U. S. Natl. Mus. Proc. 90: 461–482.

aereus Walker. ?N. B., New England. Hosts: *Hemerocampa leucostigma* (A. and S.); *Nygmia phaeorrhoea* (Donov.); *Porthetria dispar* (L.); *Malacosoma americanum* (F.); *Archips argyrospila* (Wlkr.); *Carcelia laxifrons* Vill.; *Compsilura concinnata* (Meig.); *Exorista larvarum* (L.); *Sturmia nidicola* Tns.; *S. scutellata* (R.-D.); *Apanteles lacteicolor* Vier.; *A. melanoscelus* (Ratz.); *A. solitarius* (Ratz.); *Meteorus versicolor* (Wesm.); *Phobocampe disparis* (Vier.); *Iseropus coelebs* (Walsh).

Monodontomerus aereus Walker, 1834. Ent. Mag. 2: 158. ♀.

Biology: Howard and Fiske, 1911. U. S. Dept. Agr. Bur. Ent. Bul. 91: 86–308.—Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 19–20.—Burgess and Crossman, 1929. U. S. Dept. Agr. Tech. Bul. 86: 77–80.—Proper, 1934. Jour. Agr. Res. 48: 361–376.

Taxonomy: Muesebeck, 1931. Jour. Agr. Res. 43: 445–460.

bakeri Gahan. Colo.

Monodontomerus bakeri Gahan, 1941. U. S. Natl. Mus. Proc. 90: 475. ♀.

dentipes (Dalman). Ont., Que., Maine, N. Y., Conn., N. J., Pa., Ohio, Mich., Idaho. Hosts: *Hemerocampa pseudotsugata* McD.; larvaevorid puparia; *Diprion hercyniae* (Htg.); *D. similis* (Htg.); *D.* sp.; *Rogas unicolor* (Wesm.).

Torymus dentipes Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 173, 178. ♂ ♀.

Biology: Morris, Cameron, and Jepson. Bul. Ent. Res. 28: 377–380, 389, 391.

Morphology: Bucher, 1948. Canad. Jour. Res. 26D: 230–281.

dianthidii Gahan. Calif. Host: *Dianthidium* sp.

Monodontomerus dianthidii Gahan, 1941. U. S. Natl. Mus. Proc. 90: 464. ♂ ♀.

emarginatus Gahan. Colo. Host: ?*Megachile* sp.

Monodontomerus emarginatus Gahan, 1941. U. S. Natl. Mus. Proc. 90: 476. ♀.

indiscretus Gahan. Maine. Host: *Heterarthrus nemoratus* (Fall.).

Monodontomerus indiscretus Gahan, 1941. U. S. Natl. Mus. Proc. 90: 469. ♀.

mandibularis Gahan. N. Y., D. C., Ohio, Ill., Mo., La. Hosts: *Osmia cordata* Rob.; *Anthophora abrupta* Say; *A. bomboides* Kirby; *Melitoma taurea* (Say).

Monodontomerus mandibularis Gahan, 1941. U. S. Natl. Mus. Proc. 90: 474. ♂ ♀.

Biology: Rau, 1947. Ent. Soc. Amer. Ann. 40: 221–226.

montivagus Ashmead. Ont., Del., Ill., Mo., Colo., N. Mex., Calif., Mont., B. C. Hosts: *Choristoneura fumiferana* (Clem.); *Anthidium emarginatum* (Say); *Dianthidium pudicum* (Cress.); *D. pudicum consimile* (Ashm.); *Osmia cordata* Robertson; *Anthophora abrupta* Say; *Anthophora linsleyi* Timb.; *A. occidentalis* Cress.; ?*Melissodes* sp.; *Xylocopa orpifex* Smith.

Monodontomerus montivagus Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 25, 45. ♀.

Monodontomerus americanus Girault, 1917. Descr. Stellarum Nov., p. 11. ♀.

Biology: Linsley and McSwain, 1942. Amer. Midland Nat. 27: 403, 409–412.

obscurus Westwood. N. Y., D. C., Mo., Iowa. Hosts: *Osmia cordata* Robt.; *O. lignaria* Say.

Monodontomerus obscurus Westwood, 1833. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 2: 443.

subobsoletus Gahan. N. Y., N. J., Del. Hosts: *Malacosoma americanum* (F.); *Grapholitha molesta* (Busck); ?*Choristoneura fumiferana* (Clem.); *Gambrus extrematis* (Cress.).

Monodontomerus subobsoletus Gahan, 1941. U. S. Natl. Mus. Proc. 90: 480. ♂ ♀.

Genus ZAGLYPTONOTUS Crawford

Zaglyptonotus Crawford, 1914. Ent. Soc. Wash. Proc. 16: 124, 125.
Type: ***Zaglyptonotus schwarzi*** Crawford. Monob.

mississippiensis Breland. Ala., Miss. Host: *Tephritis finalis* (Loew).

Zaglyptonotus mississippiensis Breland, 1938. Ent. Soc. Amer. Ann. 31: 205. ♂ ♀.

schwarzi Crawford. Fla., Tex., Kans., Colo. Hosts: ?*Desmoris fulvus* Lec.; *Isophrictis similiella* (Chamb.); tephritid seed maggot from ironweed.
Zaglyptonotus schwarzi Crawford, 1914. Ent. Soc. Wash. Proc. 16: 126. ♀.
Biology: Brandhorst, 1943. Kans. Acad. Sci. Trans. 46: 168.—Needham, 1948. Ecol. Monog. 18: 446.

Genus GLYPHOMERUS Foerster

Glyphomerus Foerster, 1856. Hym. Stud., v. 2, pp. 43, 44, 145.
Type: ***Ichneumon stigma*** Fabricius. Orig. desig.
Oligosthenus Foerster, 1856. Hym. Stud., v. 2, p. 145. N. name.

stigma (Fabricius). Que., to Fla.; Calif., Oreg. Hosts: *Diplolepis rosae* (L.); *Melitoma taurea* Say.
Ichneumon stigma Fabricius, 1793. Ent. System. 2: 188.
Monodontomerus viridaeneus Provancher, 1881. Nat. Canad. 12: 290. ♀.
Oligosthenus bimaculatus Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 196. ♀. N. syn.
Taxonomy: Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 186.

Genus ERIDONTOMERUS Crawford

Eridontomerus Crawford, 1907. N. Y. Ent. Soc. Jour. 15: 178–179.
Type: (***Eridontomerus primus*** Crawford)=***Stictonotus isosomatis*** Riley. Monob.

isosomatis Riley. N. Y. to Tenn., Ill. and Mich.; Ariz., Utah. Hosts: *Phytophaga destructor* (Say); *Harmolita albomaculata* (Ashm.); *H. atlantica* P. and E.; *H. dactylicola* P. and E.; *H. festucae* P. and E.; *H. grandis* (Riley); *H. hordei* (Harris); *H. maculata* (How.); *H. secale* (Fitch); *H. tritici* (Fitch); *H. vaginicola* (Doane); *H. websteri* (How.).
Stictonotus isosomatis Riley, 1882. U S. Dept. Agr. Ann. Rpt. for 1881-1882: 186. ♂ ♀.
Eridontomerus primus Crawford, 1907. N. Y. Ent. Soc. Jour. 15: 179. ♂ ♀.
Biology: Phillips and Poos, 1927. Jour. Agr. Res. 34: 483–488.—Knowlton and Janes, 1933. Utah. Agr. Expt. Sta. Bul. 243: 11–12.
Taxonomy: Gahan, 1921 (1920). Ent. Soc. Wash. Proc. 22: 235.

Genus PSEUDOTORYMUS Masi

Holaspis Mayr, 1874. Zool.-Bot. Gesell Wien, Verh. 24: 83. Preocc.
Type: ***Torymus militaris*** Boheman. Desig. by Ashmead, 1904.
Pseudotorymus Masi, 1922. Mus. Civ. Stor. Nat. Genova Ann. 49: 235. N. name.

lazulellus (Ashmead), n. comb. Ont., Conn., Colo. Hosts: *Harmolita* in rye stems; *H.* sp. in timothy stems, clover heads, oak galls.
Syntomaspis lazulella Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 26, 45. ♀.
Biology: Webster, 1906 (1905). Ent. Soc. Wash. Proc. 7: 116.

Genus CRYPTOPRISTUS Foerster

Cryptopristus Foerster, 1856. Hym. Stud., v. 2, pp. 43, 44.
Type: ***Torymus caliginosus*** Walker. Monob.
Websterellus Ashmead, 1893. Ohio Agr. Exp. Sta. Tech. Bul. 1: 164.
Type: (***Websterellus tritici*** Ashmead)=[***Torymus***] ***harrisii*** (Fitch). Monob.

harrisii (Fitch), n. comb. N. Y., Va., Ohio, Ky., Kans. Hosts: *Harmolita grandis* (Riley); ?*H. hordei* (Harr.); *H. tritici* (Fitch); *H.* sp.
Torymus Harrisii Fitch, 1862 (1861). N. Y. State Agr. Soc. Trans. 21: 152.
Websterellus tritici Ashmead, 1893. Ohio Agr. Expt. Sta. Tech. Ser. Bul. 1: 164. ♂ ♀.
Cryptopristus americanus Girault, 1917. Descr. Stellarum Nov., p. 8. ♀.
Biology: Webster, 1893. U. S. Dept. Agr. Insect Life 6: 151.—Gahan 1921 (1920). Ent. Soc. Wash. Proc. 22: 237.

Genus DITROPINOTUS Crawford

Ditropinotus Crawford, 1907. N. Y. Ent. Soc. Jour. 15: 178.
Type: ***Ditropinotus aureoviridis*** Crawford. Monob.

aureoviridis Crawford, N. Y. to Ala. and Kans.; Utah, Oreg. Hosts: *Phytophaga destructor* (Say); *Eurytoma parva* Phillips; *Harmolita atlantica* P. and E.; *H. elymicola* P. and E.; *H. grandis* (Riley); *H. secale* (Fitch); *H. tritici* (Fitch); *H. vaginicola* (Doane); *Eurytoma* spp.; *Merisoporus chalcidiphagus* (W. and R.).
Ditropinotus aureoviridis Crawford, 1907. N. Y. Ent. Soc. Jour. 15: 178. ♂ ♀.
Ditropinotus flavicoxus (!) Gahan, 1912. Ent. Soc. Wash. Proc. 14: 5. ♂ ♀.
Biology: Hill Pinckney and Udine, 1939. U. S. Dept. Agr. Tech. Bul. 689: 5, 10, 13.—Chamberlain, 1941. U. S. Dept. Agr. Tech. Bul. 784: 25–28, 35–38.
Morphology: Hill and Pinckney, 1940. U. S. Dept. Agr. Tech. Bul. 715: 6, 11–13.
Taxonomy: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 25–30.

Genus ANTISTROPHOPLEX Crawford

Antistrophoplex Crawford, 1914. Ent. Soc. Wash. Proc. 16: 122–125.
Type: ***Antistrophoplex bicoloripes*** Crawford. Monob.

bicoloripes Crawford. Kans. Host: *Antistrophus* sp.
Antistrophoplex bicoloripes Crawford, 1914. Ent. Soc. Wash. Proc. 16: 125. ♀.

Genus MICRODONTOMERUS Crawford

Microdontomerus Crawford, 1907. N. Y. Ent. Soc. Jour. 15: 178, 179.
Type: ***Torymus anthonomi*** Crawford. Monob.

anthidii (Ashmead). Calif. Host: *Dianthidium pudicum consimile* (Ashm.).
Torymus anthidii Ashmead, 1896. Ent. News 7: 24. ♀.

anthonomi (Crawford). N. J., Va., Mo., La., Tex., Utah, Idaho, Oreg., Wash. Hosts: *Acanthoscelides horni* (Pic); *Bruchus brachialis* Fahr.; *B. pisorum* (L.); *Brachytarsoides alternatus* (Say); *Anthonomus grandis* Boh.; *Ancylis comptana fragariae* (W. and R.); *Coleophora malivorella* Riley; *Bracon mellitor* Say.
Torymus anthonomi Crawford, 1907. Canad. Ent. 39: 133. ♂ ♀.
Biology: Pierce, Cushman, and Hood, 1912. U. S. Dept. Agr. Bur. Ent. Bul. 100: 1, 31, 49, 57–62.

fumipennis Crawford. N. Mex., Utah. Hosts: *Malacosoma fragile* Stretch; *Archips rosaceana* (Harr.).
Microdontomerus fumipennis Crawford, 1917 (1916). Insecutor Inscitiae Menstruus 4: 141–142. ♂ ♀.

Subfamily MEGASTIGMINAE

Genus MEGASTIGMUS Dalman

Megastigmus Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 178.
Type: ***Pteromalus bipunctatus*** Swederus. Desig. by Crosby, 1913.
Trogocarpus Rondani, 1877. Soc. Ent. Ital. Bol. 9: 204.
Type: ***Torymus ballestrerii*** Rondani. Monob.
Megalostigmus Schulz, 1906. Spolia Hym., p. 147. Emend.
Xanthosomoides Girault, 1913. Canad. Ent. 45: 220.
Type: ***Xanthosomoides maculatipennis*** Girault. Orig. desig.
Revision: Milliron, 1949. Amer. Midland Nat. 41: 257–420.

Species of this genus are phytophagous. They develop in the seeds of plants.

aculeatus aculeatus (Swederus). Mass., N. Y. Host: *Rosa* spp.
Pteromalus Aculeatus Swederus, 1795. Svenska Vetensk. Akad. Handl. 16: 221–222.

aculeatus nigroflavus Hoffmeyer. N. J., Va. Host: *Rosa multiflora* Thunb.
Megastigmus aculeatus var. *nigroflavus* Hoffmeyer, 1931. Ent. Meddel. 16: 324–326. ♂ ♀.

albifrons Walker. Ariz., Calif. Host: *Pinus ponderosa.*
Megastigmus albifrons Walker, 1869. Roy. Ent. Soc. London, Trans., p. 314. ♂.

amelanchieris Cushman. N. H., N. Y., Vt., W. Va., Pa., Minn. Hosts: *Amelanchier canadensis*; *A. leavis* × *humilis*; *A. sanguinea*; *Sorbus aucuparia.*
Megastigmus amelanchieris Cushman, 1918 (1917). Ent. Soc. Wash. Proc. 19: 81. ♂ ♀.
Biology: Milliron, 1949. Amer. Midland Nat. 41: 363.

brevicauda Ratzeburg. Emend. Minn. Host: *Sorbus aucuparia.*
Megastigmus brevicaudis Ratzeburg, 1852. Ichn. d. Forstins., v. 3, p. 225. ♀.
Biology: Milliron, 1949. Amer. Midland Nat. 41: 363–365, 393, 402.

caperatus Milliron. Ont. Host: ?*Picea* sp.
Megastigmus caperatus Milliron, 1949. Amer. Midland Nat. 41: 306, 347, 350. ♀.

flavipes Ashmead. Fla.
Megastigmus flavipes Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 128. ♂.

floridanus Milliron. Fla.
Megastigmus floridanus Milliron, 1949. Amer. Midland Nat. 41: 342, 348, 350. ♀.

formosus Milliron. Ont., Que. Hosts: ?*Crataegus* sp.; ?*Rosa* sp.
Megastigmus formosus Milliron, 1949. Amer. Midland Nat. 41: 339, 348, 350. ♀.

gahani Milliron. Minn., Mo., Colo. Hosts: *Physocarpus opulifolius* var. *intermedius* and *P. opulifolius* var. *?lutens.*
Megastigmus gahani Milliron, 1949. Amer. Midland Nat. 41: 275, 347, 351, 365. ♂ ♀.

hoffmeyeri Walley. Ont., Que., N. Y. Hosts: ?*Abies amabilis*; *Tsuga canadensis.*
Megastigmus spermotrophus var. *canadensis* Hoffmeyer, 1930. Ent. Meddel. 17: 218. ♂ ♀. Preocc.
Megastigmus spermotrophus var. *hoffmeyeri* Walley, 1932. Canad. Ent. 64: 188. N. name.
Biology: Miller, 1916. Jour. Agr. Res. 6: 65.

laricis Marcovitch. N. Y. Host: *Larix laricina.*
Megastigmus laricis Marcovitch, 1914. Canad. Ent. 46: 435. ♂ ♀.

lasiocarpae Crosby. Conn., Colo. Hosts: *Abies amabilis*; *A. lasiocarpa.*
Megastigmus lasiocarpae Crosby, 1913. Ent. Soc. Amer. Ann. 6: 163. ♂ ♀.

melanus Milliron. ?Mich.
Megastigmus melanus Milliron, 1949. Amer. Midland Nat. 41: 302, 347, 351. ♀.

milleri Milliron. Calif., B. C. Hosts: *Abies grandis*; *A. magnifica* var. *shastensis.*
Megastigmus milleri Milliron, 1949. Amer. Midland Nat. 41: 323, 344, 347, 352. ♂ ♀.

nigrovariegatus Ashmead. N. S. to Va. to Calif. to Alaska. Hosts: *Rosa acicularis*; *R. acicularis* var. *engelmannii*; *R. blanda*; *R. californica*; *R. canina*; *R. palustris*; *R. rugosa* and *R. virginiana.*
Megastigmus nigrovariegatus Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 26, 45. ♀.
Biology: Balduf, 1945. Ent. Soc. Wash. Proc. 47: 185–198.—Milliron, 1949. Amer. Midland Nat. 41: 373–390.

physocarpi Crosby. Que., Ont., Minn., Mich., Ind., Mo., Idaho. Hosts: *Physocarpus opulifolius*; *P. opulifolius* var. *intermedius.*
Megastigmus physocarpi Crosby, 1913. Ent. Soc. Amer. Ann. 6: 158. ♂ ♀.
Biology: Milliron, 1949. Amer. Midland Nat. 41: 365–366.

piceae montana Milliron, n. status. Mont. Host: *Picea engelmannii.*
Megastigmus piceae var. *montana* Milliron, 1949. Amer. Midland Nat. 41: 305, 347, 352. ♂ ♀.

piceae piceae Rohwer. Colo., Calif. Hosts: ?*Abies arizonica; ?Picea engelmannii; P. pungens; P. sitchensis.*
Megastigmus piceae Rohwer, 1915. Canad. Ent. 47: 97. ♂ ♀.

pinus marginatus Hoffmeyer. Oreg. Host: *Abies grandis.*
Megastigmus* pinus** var. ***marginatus Hoffmeyer, 1930. Ent. Meddel. 17: 216. ♂.

pinus pinus Parfitt. Conn., Colo., Nev., Calif., Oreg., Wash. Hosts: *Abies amabilis; A. concolor; A. grandis; A. lasiocarpa; A. magnifica; A. magnifica* var. *shastensis; A. nobilis; A. venusta; ?Picea sitchensis; ?Thuja plicata,* and *?Tsuga* sp.
Megastigmus Pinus Parfitt, 1857. Zoologist 15: 5543. ♀.
Megastigmus pinus var. ***crosbyi*** Hoffmeyer, 1930. Ent. Meddel. 17: 215. ♀.
Biology: Laidlaw, 1931. Scot. Forestry Jour. 45: 179–184.

rafni Hoffmeyer. Colo., N. Mex., Calif., Idaho, Oreg., B. C. Hosts: *Abies concolor; A. grandis; A. magnifica; A. magnifica* var. *shastensis; ?Pseudotsuga taxifolia.*
Megastigmus rafni Hoffmeyer, 1928. Ent. Meddel. 16: 331. ♀.
Taxonomy: Hoffmeyer, 1930. Ent. Meddel. 17: 216–217.

slossonae Crosby. N. Y., Ont. Host: *Sorbus* sp.
Megastigmus slossonae Crosby, 1913. Ent. Soc. Amer. Ann. 6: 157. ♀.
Megastigmus americanus Milliron, 1949. Amer. Midland Nat. 41: 285, 347, 349, 365. ♂ ♀. N. syn.

specularis Walley. N. B., N. H., ?Mass., ?Conn., Minn. Host: *Abies balsamea.*
Megastigmus specularis Walley, 1932. Canad. Ent. 64: 187. ♂ ♀.

spermotrophus nigrodorsatus Milliron. Calif. Host: *Pseudotsuga macrocarpa.*
Megastigmus spermotrophus var. ***nigrodorsatus*** Milliron, 1949. Amer. Midland Nat. 41: 316, 346, 353. ♂ ♀.

spermotrophus spermotrophus Wachtl. Calif., N. Mex., Colo., Oreg., Wash., B. C. Host: *Pseudotsuga taxifolia.*
Megastigmus spermotrophus Wachtl, 1893. Wien. Ent. Ztg. 12: 25. ♂ ♀.
Megastigmus spermatotrophus Dalla Torre, 1898. Cat. Hym., v. 5, p. 287. Emend.
Biology: Crosby, 1909. N. Y. (Cornell) Agr. Expt. Sta. Bul. 265: 379–380.—Miller 1916. Jour. Agr. Res. 6: 65–68.—Milliron, 1949. Amer. Midland Nat. 41: 367–368, 390–391.

tsugae heterophyllae Milliron. B. C. Host: *Tsuga heterophylla.*
Megastigmus tsugae var. ***heterophyllae*** Milliron, 1949. Amer. Midland Nat. 41: 309, 347, 353. ♂ ♀.

tsugae tsugae Crosby. West. U. S. Hosts: ?*Abies amabilis; Tsuga mertensiana.*
Megastigmus tsugae Crosby, 1913. Ent. Soc. Amer. Ann. 6: 162. ♀.

Family ORMYRIDAE

Genus MONOBAEUS Foerster

Monobaeus Foerster, 1860. Naturh. Ver. Rheinlande Verh. 17: 95.
Type: ***Monobaeus cingulatus*** Foerster. Desig. by Ashmead, 1904.

hegeli Girault. Mich.
Monobaeus hegeli Girault, 1917. Ent. News 28: 106. ♀.

Genus ORMYRUS Westwood

Ormyrus Westwood, 1832. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 1: 127.
Type: ***Ormyrus punctiger*** Westwood. Monob.
Periglyphus Boheman, 1833. Svenska Vetensk. Akad. Handl. 54: 378.
Type: (***Periglyphus gastris*** Boheman)=***Ormyrus punctiger*** Westwood. Monob.
Siphonura Nees, 1834. Hym. Ichn. Aff. Monog., v. 2, p. 81.
Type: ***Siphonura variolosa*** Nees. Desig. by Gahan and Fagan, 1923.

Cyrtosoma Perris, 1840. Soc. Ent. France Ann. 9: 96.
Type: *Cyrtosoma papaveris* Perris. Monob.

andricus Ashmead. Fla. Host: *Callirhytis difficilis* (Ashm.).
Ormyrus andricus Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 128. ♀.

brunneipes Provancher. Que., Pa.
Ormyrus brunneipes Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 198. ♀.
Ormyrus bruneipes Dalla Torre, 1898. Cat. Hym., v. 5, p. 282. Emend.

distinctus Fullaway. Conn., Calif. Host: Strawberry gall on *Quercus dumosa*.
Ormyrus distinctus Fullaway, 1912. N. Y. Ent. Soc. Jour. 20: 276. ♀.

dryorhizoxeni Ashmead. Conn., Fla. Host: Gall of *Belonocnema treatae* Mayr.
Ormyrus dryorhizoxeni Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xiv. ♀.

labotus Walker. Md., Fla., Kans. Hosts: Galls of *Diastrophus nebulosus* (O. S.) and *Disholcaspis virens* (Ashm.).
Ormyrus labotus Walker, 1843. Soc. Ent. France Ann. (2) 1: 148. ♂ ♀.

minutus Ashmead. Mich., N. J., Fla. Hosts: *Neuroterus noxiosus* (Bass.); cynipid gall on *Quercus laurifolia*.
Ormyrus minutus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 189. ♂ ♀.

querci-pilulae (Fitch). Maine, N. Y., N. J. Hosts: *Acraspis pezomachoides* (O. S.); gall on *Quercus borealis*.
Pteromalus Querci-pilulae Fitch, 1859 (1858). Trans. N. Y. State Agr. Soc. 18: 819.

quercus Ashmead. Fla. Host: Gall of *Callirhytis batatoides* (Ashm.).
Ormyrus quercus Ashmead, 1886. Amer. Ent. Soc. Trans. 14: 128. ♂ ♀.

rosae Ashmead. N. J., Fla., Kans., Colo. Host: Gall of *Diplolepis ignota* (O. S.).
Ormyrus rosae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xiv. ♀.

thymus Girault. Calif.
Ormyrus thymus Girault, 1917. Brooklyn Ent. Soc. Bul. 12: 87. ♀.

tubulosus (Fonscolombe). Europe; ?Mass.
Cinips (!) *tubulosa* Fonscolombe, 1832. Ann. des Sci. Nat. [Paris] 26: 290.

unifasciatipennis Girault, emend. Calif.
Ormyrus unfasciatipennis (!) Girault, 1917. Brooklyn Ent. Soc. Bul. 12: 87. ♀.

unimaculatipennis Girault. La.
Ormyrus unimaculatipennis Girault, 1916. Canad. Ent. 48: 342. ♀.

vacciniicola Ashmead. Ont., Maine, N. J. Host: *Hemadas nubilipennis* (Ashm.).
Ormyrus vacciniicola Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 189. ♀.
Biology: Driggers, 1927. N. Y. Ent. Soc. Jour. 35: 254–258.

ventricosus Ashmead. Ont., Que., N. H., N. Y., Conn., N. J., Mich., Ill., Fla., Kans. Hosts: Galls of *Acraspis erinacei* (Beut.); *Aulacidea podagrae* (Bass.); *Callirhytis ventricosa* (O. S.); *Diastrophus nebulosus* (O. S.); *Disholcaspis mamma* (Cress.).
Ormyrus ventricosus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 189. ♂.
Biology: Triggerson, 1914. Ent. Soc. Amer. Ann. 7: 8–9.

Genus MEGORMYRUS Cockerell

Megormyrus Cockerell, 1926. Psyche 33: 36.
Type: *Megormyrus amabilis* Cockerell. Monob.

amabilis Cockerell. Colo. Host: *Stelis* sp.
Megormyrus amabilis Cockerell, 1926. Psyche 33: 37. ♀.

Family PTEROMALIDAE

Subfamily SPHEGIGASTERINAE

Tribe SPALANGIINI

Revisions: Ashmead, 1894. Ent. Soc. Wash. Proc. 3: 27–37.—Masi, 1917. Novitates Zool. 24: 188–189.

Genus SPALANGIA Latreille

Spalangia Latreille, 1805. Hist. Nat. Crust. Ins., v. 13, p. 227.
Type: ***Spalangia nigra*** Latreille. Monob.
Revision: Richardson, 1913. Jour. Morph. 24: 515.

drosophilae Ashmead. N. J., Md., N. C., Ga., Fla., Ill., Tex. Hosts: *Drosophila melanogaster* Meig.; *Oscinella* sp.; *Siphona irritans* (L.); *Alysia ridibunda* Say; *Eucoila rufocincta* (Kieff.).
Spalangia drosophilae Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 199. ♀.
Biology: Lindquist, 1936. Jour. Econ. Ent. 29: 1154–1158.—Simmonds, 1944. Bul. Ent. Res. 35: 222.

haematobiae Ashmead. N. J., Va. Host: *Siphona irritans* (L.).
Spalangia haematobiae Ashmead, 1894. Ent. Soc. Wash. Proc. 3: 37. ♀.

muscae Howard. La., Tex., Kans. Hosts: *Musca domestica* L.; *Stomoxys calcitrans* (L.); *S.* sp.; *Siphona irritans* (L.).
Spalangia muscae Girault (!) Howard, 1911. The House Fly, p. 90.

muscarum Girault. Ill. Host: Muscid.
Spalangia muscarum Girault, 1920. U. S. Natl. Mus. Proc. 58: 213. ♀.

muscidarum Richardson. Mass., N. J., Md., D. C., La., Tex., Kans. Hosts: *Musca domestica* L.; *Stomoxys calcitrans* (L.); ?*Lucilia sericata* (Meig.); ?*Megaselia iroquoiana* Mall.
Spalangia muscidarum Richardson, 1913. Psyche 20: 38. ♂ ♀.
Biology: Pinkus, 1913. Psyche 20: 148–158.—Richardson, 1913. Jour. Morph. 24: 513–549.

nigra Latreille. Europe; ?N. Amer. Host: ?*Musca domestica* L.
Spalangia nigra Latreille, 1805. Hist. Nat. Crust. Ins. v. 13, p. 228.

rugosicollis Ashmead. Conn., N. J., D. C., Ill., Mo., Kans., La., Tex. Hosts: *Pyralis farinalis* (L.); *Stomoxys calcitrans* (L.).
Spalangia rugosicollis Ashmead, 1894. Ent. Soc. Wash. Proc. 3: 36. ♀.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 213.

stomoxysiae Girault, n. status. Tex. Hosts: *Musca domestica* L.; *Orthellia* sp.; *Stomoxys calcitrans* (L.); *Sarcophaga effrenata* Wlkr.; *S. impar* Aldrich; *S. sueta* Wulp; *Siphona irritans* (L.).
Spalangia muscidarum var. ***stomoxysiae*** Girault, 1916. Soc. Ent. 31: 57. ♀.
Spalangia muscidarum var. ***texensis*** Girault, 1920. U. S. Natl. Mus. Proc. 58: 213. ♂. N. syn.
Biology: Lindquist, 1936. Jour. Econ. Ent. 29: 1154–1158.

Tribe CEROCEPHALINI

Revision: Gahan, 1946. U. S. Natl. Mus. Proc. 96: 349–376 (Cerocephalinae).

Genus CHOETOSPILA Westwood

Choetospila Westwood, 1874. Thesaurus Ent. Oxon., p. 137, pl. 25.
Type: ***Choetospila elegans*** Westwood. Monob.
Chaetospila Dalla Torre, 1898. Cat. Hym., v. 5, p. 207. Emend.
Spalangiomorpha Girault, 1913. Queensland Mus. Mem. 2: 333.
Type: ***Spalangiomorpha fasciatipennis*** Girault. Orig. desig.
Revision: Gahan, 1946. U. S. Natl. Mus. Proc. 96: 350–355.

elegans Westwood. Cosmopolitan. Hosts: *Lasioderma serricorne* (F.); *Stegobium paniceum* (L.); ?*Rhyzopertha dominica* (F.); *Callosobruchus chinensis* (L.); *C. maculatus* (F.); *Caulophilus latinasus* (Say); *Sitophilus granarius* (L.); *S. linearis* (Hbst.); *S. oryza* (L.); ?*Sitotroga cerealella* (Oliv.).
Choetospila elegans Westwood, 1874. Thesaurus Ent. Oxon., p. 137.
Biology: Bare, 1942. Jour. Econ. Ent. 35: 186.
Taxonomy: Waterston, 1921. Rpt. Grain Pests (War) Com. [Gt. Brit.], no. 9, p. 25.

tabida Gahan. Md. Host: ?Cossonine beetle.
Choetospila tabida Gahan, 1946. U. S. Natl. Mus. Proc. 96: 354. ♂ ♀.

Genus ACEROCEPHALA Gahan

Acerocephala Gahan, 1946. U. S. Natl. Mus. Proc. 96: 369.
Type: ***Cerocephala atroviolacea*** Crawford. Orig. desig.

aenigma Gahan. Calif., Oreg.
Acerocephala aenigma Gahan, 1946. U. S. Natl. Mus. Proc. 96: 371. ♂ ♀.

atroviolacea (Crawford). N. Mex. Hosts: *Conophthorus edulis* Hopkins; scolytid infesting cones of *Pinus edulis*.
Cercocephala (!) ***atroviolacea*** Crawford, 1913. U. S. Natl. Mus. Proc. 45: 315. ♀.

Genus THEOCOLAXIA Girault

Theocolaxia Girault, 1924. Lese Majeste, New Insecta and Robbery, p. 1.
Type: ***Theocolaxia lessingi*** Girault. Monob.
Revision: Gahan, 1946. U. S. Natl. Mus. Proc. 96: 363–368.

pityophthori (Ashmead). N. C, Fla. Hosts: *Pityophthorus consimilis* Lec.; *Thysanoes fimbricornis* Lec.
Cerocephala pityophthori Ashmead, 1894. Ent. Soc. Wash. Proc. 3: 32. ♀.

scolytivora (Ashmead). Fla. Host: *Loganius ficus* Schwarz.
Cerocephala scolytivora Ashmead, 1894. Ent. Soc. Wash. Proc. 3: 33. ♂ ♀.

Tribe ASAPHINI

Genus ASAPHES Walker

Asaphes Walker, 1834. Ent. Mag. 2: 151.
Type: ***Asaphes vulgaris*** Walker. Monob.
Isocratus Foerster, 1856. Hym. Stud., v. 2, pp. 53, 58. N. name.

americanus Girault. N. Y. to N. C. and Ky.; Iowa, Wis. Hosts: *Anuraphis bakeri* (Cowen); *Aphis rumicis* L.; *Eriosoma lanigerum* (Hausm.); *Kakimia houghtonensis* (Troop); *Macrosiphum cornelli* Patch; *Myzus persicae* Sulz.; *Periphyllus negundinis* (Thos.); *Aphidius phorodontis* Ashm.; *A. polygonaphis* Fitch; *A. testaceipes* Cress.; *Diaeretus rapae* (Curt.); *Praon simulans* (Prov.); *Aphelinus jucundus* Gahan; *A. semiflavus* How.; *Aphidencyrtus aphidivorus* (Mayr).
Asaphes americana Girault, 1914. Ent. Soc. Wash. Proc. 16: 114. ♂ ♀.
Biology: Spencer, 1926. Ent. Soc. Amer. Ann. 19: 145.—Griswold, 1929. Ent. Soc. Amer. Ann. 22: 449.

californicus Girault. Utah, Calif. Host: *Macrosiphum escalantis* (Knowl.).
Asaphes californicus Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 1. ♀.

fletcheri (Crawford), n. comb. Ont., Que., Conn. Hosts: *Anuraphis roseus* Baker; *Aphis sorbi* Kltb.; *Macrosiphum pisi* (Kltb.).
Megorismus Fletcheri Crawford, 1909. Canad. Ent. 41: 98. ♂ ♀.

lucens (Provancher), n. comb. Ont., Que.
Euplectrus lucens Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 207. ♀.

rufipes Brues. N. Y., Mass., Wash. Hosts: *Brevicoryne brassicae* (L.); *Hyalopterus* sp., probably *atriplicis* (L.).
Asaphes rufipes Brues, 1908. Wis. Nat. Hist. Soc. Bul. 6: 160. ♀.
Biology: Cardiff, 1915. Wash. Agr. Expt. Sta. Bul. 127: 32.

vulgaris Walker. Europe; ?Ont. to Va. Hosts: *Aphis rumicis* L.; *Brevicoryne brassicae* (L.); *Macrosiphum destructor* Johns.; *M. granarium* (Kby.); *M. rosae* (L.); aphid on *Euonymus atropurpureus; Pseudococcus adonidum* (L.); probably *Aphicoletes cumeris* Lintn.; *Agromyza lutea* Meig.; *Diplazon laetatorius* (F.).
Asaphes vulgaris Walker, 1834. Ent. Mag. 2: 152. ♂ ♀.

Genus HYPERIMERUS Girault

Hyperimerus Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III., p. 5.
Type: ***Hyperimerus corvus*** Girault. Monob.

corvus Girault. Calif.
Hyperimerus corvus Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 5. ♀.

Tribe DIPARINI

Genus DIPARA Walker

Dipara Walker, 1833. Ent. Mag. 1: 371, 373.
Type: ***Dipara petiolata*** Walker. Monob.

latipennis Ashmead. Colo.
Dipara latipennis Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 26, 45. ♂.

Genus APTEROLELAPS Ashmead

Apterolelaps Ashmead, 1901. Fauna Hawaii. v. 1, p. 312.
Type: ***Apterolelaps nigriceps*** Ashmead. Monob.
Apterolaelaps Schulz, 1906. Spolia Hym., p. 144. Emend.
Apterolaelaps Girault, 1916. Canad. Ent. 48: 264. Preocc.
Type: (***Apterolaelaps nigriscutum*** Girault)=***Apterolelaps nigriceps*** Ashmead. Monob.

nigriceps Ashmead. W. Va.
Apterolelaps nigriceps Ashmead, 1904. Carnegie Mus. Mem. 1: xi, 279. ♀.
Apterolaelaps nigriscutum Girault, 1916. Canad. Ent. 48: 264. ♀.
Taxonomy: Gahan and Fagan, 1923. U. S. Natl. Mus. Bul. 124: 16.

Genus SPALANGIOLAELAPS Girault

Spalangiolaelaps Girault, 1916. Ent. News 28: 22.
Type: ***Spalangiolaelaps argenticoxa*** Girault. Monob.

argenticoxa Girault. Md.
Spalangiolaelaps argenticoxa Girault, 1917. Ent. News 28: 23. ♀.

Tribe LAMPROTATINI

Genus LAMPROTATUS Westwood

Lamprotatus Westwood, 1833. Mag. Nat. Hist. 6: 121.
Type: ***Lamprotatus splendens*** Westwood. Monob.
Miscogaster Walker, 1833. Ent. Mag. 1: 371, 458.
Type: ***Halticoptera hortensis*** Walker. Desig. by Ashmead, 1904.
Lampretatus (!) Walker, 1843. Soc. Ent. France Ann. (2) 1: 155.
Mischogaster Howard, 1886. Ent. Amer. 2: 33. Emend.

abnormicolor (Girault), n. comb. Fla.
Miscogaster abnormicolor Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 8. ♀.

auratus (Ashmead), n. comb. Ill.
Stictomischus auratus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 221. ♀.

bigutattus (Girault), n. comb. Fla.
Miscogaster biguttata Girault, 1917. Psyche 24: 97. ♂ ♀.

canadensis Girault. Alta.
Lamprostatus (!) ***canadensis*** Girault, 1917. Psyche 24: 96. ♀.

conicus Girault. Alaska.
Lamprostatus (!) ***conicus*** Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 11. ♀.

cyrnus Walker. Fla.
Lampretatus (!) cyrnus Walker, 1843. Soc. Ent. France Ann. (2) 1: 157.

diaeus Walker. Ont. Host: *Vanessa cardui* (L.).
Lamprotatus Diaeus Walker, 1844. Ann. Mag. Nat. Hist. (1) 14: 16. ♀.

discoloripes (Girault), n. comb. Fla.
Miscogaster discoloripes Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 9. ♀.

flora (Girault), n. comb. Fla.
Miscogaster flora Girault, 1917. Psyche 24: 96. ♀.

habis Walker. Fla.
Lampretatus (!) habis Walker, 1843. Soc. Ent. France Ann. (2) 1: 155. ♀.

keatsi (Girault), n. comb. Md.
Miscogaster keatsi Girault, 1917. Chalcidoid. Nova Marilandensis III, p. 5. ♀.

marylandicus (Girault), emend., n. comb. Md., Fla.
Miscogaster marilandica Girault, 1916. Brooklyn Ent. Soc. Bul. 11: 87. ♀.

pilicornis Thomson. ?Greenland.
Lamprotatus pilicornis Thomson, 1876. Hym. Scand., v. 4, p. 229. ♂ ♀.

salemus Walker. Fla.
Lampretatus (!) salemus Walker, 1843. Soc. Ent. France Ann. (2) 1:156. ♀.

trypherus Walker. Fla.
Lampretatus (!) trypherus Walker, 1843. Soc. Ent. France Ann. (2) 1: 158. ♀.

unguttus (Girault), n. comb. Md.
Miscogaster ungutta Girault, 1917. Ent. News 28: 23. ♀.

Genus SELADERMA Walker

Seladerma Walker, 1834. Ent. Mag. 2: 288.
Type: *Seladerma laetum* Walker. Desig. by Westwood, 1840.

salicis (Nees). Europe; ?N. Y. Host: *Rhabdophaga salicis* Schrank.
Pteromalus salicis Nees, 1834. Hym. Ichn. Aff. Monog., v. 2, pp. 105, 424. ♂ ♀.
Taxonomy: Felt, 1902. N. Y. State Mus. Bul. 53: 744.

Genus SYNTOMOPUS Walker

Syntomopus Walker, 1833. Ent. Mag. 1: 371, 372.
Type: *Syntomopus thoracicus* Walker. Desig. by Westwood, 1840.

affinis Ashmead. D. C., Ill.
Syntomopus affinis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 228. ♀.

americanus Ashmead. N. Y., Conn., Ohio. Ill., La. Hosts: *Anthomyza angelicae* Frost; *Agromyza virens* Loew.
Syntomopus americanus Ashmead, 1894. Cincinnati Soc. Nat. His. Jour. 17: 51. ♂ ♀.
Biology: Lange, 1944. Jour. Econ. Ent. 37: 394–395.

Genus BUBEKIA Dalla Torre

Brachycrepis Ashmead, 1888. Canad. Ent. 20: 174, 176. Preocc.
Type: *Brachycrepis tricarinatus* Ashmead. Monob.
Bubekia Dalla Torre, 1897. Wien Ent. Ztg. 16: 84. N. name.
Revision: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 114.

carolinensis (Ashmead), n. comb. N. C.
Acroclisis carolinensis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 228. ♂.

fallax Gahan. Ind., Tenn., Okla., Kans., Iowa. Hosts: *Meromyza americana* Fitch; *Phytophaga destructor* (Say).
Bubekia fallax Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 114–116. ♂ ♀.

lasiopterae (Ashmead), n. comb. Ohio. Host: *Lasioptera muhlenbergiae* Mart.
Megorismus lasiopterae Ashmead, 1893. Ohio Agr. Expt. Sta. Tech. Ser. Bul. 1: 160. ♂.

tricarinata (Ashmead). Kans.
Brachycrepis tricarinatus Ashmead, 1888. Canad. Ent. 20: 176. ♀.

Genus BRACHYCAUDONIA Ashmead

Brachycaudonia Ashmead, 1904. Carnegie Mus. Mem. 1: 283, 285.
Type: *Brachycaudonia californica* Ashmead. Monob.

californica Ashmead. Calif.
Brachycaudonia californica Ashmead, 1904. Carnegie Mus. Mem. 1: 282, 368. ♀.

Taxonomy: Gahan and Peck, 1946. Jour. Wash. Acad. Sci. 36: 315.

Genus CHRYSOLAMPUS Spinola

Chrysolampus Spinola, 1811. Paris Mus. Hist. Nat. Ann. 17: 147.
Type: (*Diplolepis splendicula* Spinola)=*Chrysolampus cyaneus* (Fabricius). Monob.
Lamprostylus Foerster, 1856. Hym. Stud., v. 2, p. 42 (no species).
Type: *Lamprostylus punctatus* Foerster. Included by Foerster, 1859.

Revision: Crawford, 1914. Ent. Soc. Wash. Proc. 16: 74.

The nearctic species in this genus parasitize insect eggs.

lycti Crawford. W. Va.
Chrysolampus lycti Crawford, 1914. Ent. Soc. Wash. Proc. 16: 75. ♂ ♀.

spinolae (Ratzeburg). ?Conn.
Pteromalus Spinolae Ratzeburg, 1844. Ichn. d. Forstins., v. 1, p. 189. ♂ ♀.

Genus ELATUS Walker

Elatus Walker, 1848. List Hym. Brit. Mus., v. 2, pp. 104, 153.
Type: *Elatus thenae* Walker. Monob.

Revision: Crawford, 1914. Ent. Soc. Wash. Proc. 16: 74.

parcipunctatus (Crawford), n. comb. Calif.
Chrysolampus parcipunctatus Crawford, 1914. Ent. Soc. Wash. Proc. 16: 75. ♀.

schwarzi (Crawford), n. comb. Utah.
Chrysolampus schwarzi Crawford, 1914. Ent. Soc. Wash. Proc. 16: 76. ♀.

sisymbrii Ashmead. N. Mex.
Elatus sisymbrii Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 218. ♂.

Genus PARACAROTOMUS Ashmead

Paracarotomus Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 335.
Type: *Paracarotomus cephalotes* Ashmead. Monob.

cephalotes Ashmead. Va.
Paracarotomus cephalotes Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 336. ♂.

Tribe PACHYNEURINI

Genus PACHYNEURON Walker

Pachyneuron Walker, 1833. Ent. Mag. 1: 371, 380.
Type: *Pachyneuron formosum* Walker. Monob.
Pachynevron Blanchard, 1840. Hist. Nat. Anim. Articules, v. 3, pp. 260, 266. Emend.
Pachynevrum Agassiz, 1846. Nomencl. Zool., Index Univ., p. 778. Emend.
Propachyneuronia Girault, 1917. Psyche 24: 102.
Type: *Encyrtus siphonophorae* Ashmead. Monob.

Revision: Girault, 1917. Psyche 24: 88–90.

albutius (Walker). Fla.
Pachynevron albutius Walker, 1843. Soc. Ent. France Ann. (2) 1: 158. ♀.

altiscutum Howard. Ont., N. H., N. Y., Conn., N. J., Mich., Ohio, Va., La., Kans. Hosts: *Lecanium corni* Bouché; *L. nigrofasciatum* Perg.; *Pseudococcus comstocki* (Kuw.); *P. juniperi* Ehrh.; *Pulvinaria acericola* (W. and R.); *Saissetia oleae* (Bern.); *Coleophora laricella* (Hbn.); ?*Aphycus lounsburyi* How.; *Clausenia purpurea* Ishii; ?*Quaylea whittieri* (Gir.); ?*Scutellista cyanea* Mots.
Pachyneuron altiscuta (!) Howard, 1885 (1884). *In* Cook, Mich. State Hort. Soc. Ann. Rpt. 14: 91. ♂ ♀.

anthomyiae Howard. Fla. Host: Muscid puparium.
Pachyneuron anthomyiae Howard, 1885. *In* Hubbard, Insects Affecting the Orange, p. 217. ♂ ♀.

californicum Girault. Calif. Hosts: *Chrysopa californica* Coq.; *C. majuscula* Banks; *Gelis tenellus* (Say); *Chrysopophagus compressicornis* Ashm.; *Isodromus iceryae* How.; *I. niger* Ashm.; *Dibrachys cavus* (Wlkr.).
Pachyneuron californicum Girault, 1917. Psyche 24: 90. ♂ ♀.
Biology: Clancy, 1946. Calif. Univ. Pubs., Ent. 7: 454–456.

eros Girault. Calif. Hosts: *Lecanium corni* Bouché; *Pseudococcus adenostomae* Ferris: *P. aurilanatus* (Mask.); *Leucopis bella* Loew; *L.* sp. ex *Aphis atriplicis* L.
Pachyneuron eros Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 1. ♀.

groenlandicum (Holmgren). Greenland.
Pteromalus groenlandicus Holmgren, 1872. Öfvers. K. Vetensk. Akad. Förh. 29: 100. ♂ ♀.

hammari Crawford. N. Mex. Host: ?*Carpocapsa pomonella* (L.).
Pachyneuron hammari Crawford, 1914. Insecutor Inscitiae Menstruus 2: 36. ♂ ♀.

mucronatum Girault. Kans.
Pachyneuron mucronatum Girault, 1917 (1916). Insecutor Inscitiae Menstruus 4: 116. ♀.
Biology: Brandhorst, 1943. Kans. Acad. Sci. Trans. 46: 168.

siphonophorae (Ashmead). N. Y. to N. C., Tenn., and Ill.; Minn., Fla., La., Utah, Calif., Wash. Hosts: *Aphis gossypii* Glov.; *A. maidis* Fitch; *A. pomi* Deg.; *A. nigragregalis* Knowl.; *Brevicoryne brassicae* (L.); *Capitophorus bitrichus* K. and S.; *C. ribis* (L.); *Kakimia houghtonensis* (Troop); *Lachnus pini* (L.); *Macrosiphum granarium* Kby.; *M. solanifolii* Ashm.; *Rhopalosiphum pseudobrassicae* (Davis); *Toxoptera graminum* (Rond.); *Kermes pubescens* Bogue; *Lecanium* sp. on mulberry; *Baccha clavata* (F.); *Aphidius testaceipes* (Cress.); *Diaeretus rapae* (Curt.).
Encyrtus siphonophorae Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 131. ♀.
Pachyneuron aphidivora Ashmead, 1887. U. S. Dept. Agr. Div. Ent. Bul. 14: 14. ♀.
Pachyneuron maidaphidis Ashmead, 1888. Fla. Agr. Expt. Sta. Bul. 2: 23–24. ♀.
Pachyneuron micans Howard, 1890. U. S. Dept. Agr. Insect Life 2: 246. ♂ ♀.
Biology: Folsom and Bondy, 1930. U. S. Dept. Agr. Cir. 116: 8.
Taxonomy: Gahan, 1924 (1923). Ent. Soc. Wash. Proc. 25: 187.

syrphi (Ashmead). Ill., N. C., S. C., Fla., La., Idaho, Calif. Hosts: ?*Carpocapsa pomonella* (L.); *Allograpta fracta* O. S.; *A. obliqua* Say; *Baccha clavata* (F.); *Eupeodes volucris* O. S.; *Mesograpta polita* Say; *Paragus tibialis* Fall.; *Scaeva pyrastri* (L.); *Sphaerophoria cylindrica* (Say); *Syrphus nitens* Zett.; *S. opinator* (O. S.); *S. philadelphicus* Macq.; *S. rectus* O. S.; *Phaeogenes* sp.
Spalangia? syrphi Ashmead, 1881. Canad. Ent. 13: 171. ♂ ♀.
Pachyneuron allograptae Ashmead, 1887. U. S. Dept. Agr. Div. Ent. Bul. 14: 15. ♂ ♀.
Biology: Kamal, 1939. Egypt Min. Agr. Tech. and Sci. Serv. Bul. Ent. Sect. 207: 36, 46, 47.

syrphicola Ashmead. Fla.

Pachyneuron syrphi Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 131. ♂ ♀. Preocc.
Pachyneuron syrphicola Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 193. N. name.

texanum Girault. Ohio, La., Tex. Host: Syrphid pupae.
Pachyneuron texanum Girault, 1917. Psyche 24: 90. ♀.

validum Waterston. Calif. Host: *Euphyllura arbuti* Schwarz.
Pachyneuron validum Waterston, 1923. Bul. Ent. Res. 14: 110. ♂ ♀.

virginicum Girault. Va. Host: *Aphis sorbi* Kltb.
Pachyneuron virginicum Girault, 1917. Psyche 24: 89. ♂ ♀.

Genus PACHYCREPOIDEUS Ashmead

Pachycrepoideus Ashmead, 1904. Carnegie Mus. Mem. 1: 329.
Type: ***Pachycrepoideus dubius*** Ashmead. Monob.
Revision: Girault and Sanders, 1910. Psyche 17: 110.

dubius Ashmead. Ont., N. Y., D. C., Ohio, Ill., Mich. Hosts: *Piophila casei* (L.); *Ceratitis capitata* (Wied.); *Rhagoletis fausta* O. S.; *Hylemya brassicae* (Bouché); *Musca domestica* L. ?*Muscidifurax raptor* G. and S.
Pachycrepoideus dubius Ashmead, 1904. Carnegie Mus. Mem. 1: 329, 383. ♀.
Biology: Girault and Sanders, 1910. Psyche 17: 108–117.—Crandall, 1939. Ent. Soc. Amer. Ann. 32: 632–654.

Genus EUNEURA Walker

Euneura Walker, 1844. Ann. Mag. Nat. Hist. 14: 331.
Type: ***Euneura augurus*** Walker. Monob.
Eunevra Agassiz, 1846. Nomencl. Zool., Index Univ., p. 427. Emend.
Hypsicamara Foerster, 1856. Hym. Stud., 2: 52, 54 (no species). N. syn.
Type: ***Hypsicamara ratzeburgi*** Reinhard. Included by Reinhard, 1859.
Hypsicamera Dalla Torre, 1898. Cat. Hym., v. 5, p. 168. Emend.

lachni (Ashmead), n. comb. N. B., Maine, Ohio, Fla., Utah, Idaho. Host: *Lachnus australis* Ashm.
Pachycrepis lachni Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 193 ♀.
Taxonomy: Gahan, 1942. U. S. Natl. Mus. Proc. 92: 46.

Tribe CRATOMINI

Genus CRATOMUS Dalman

Cratomus Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 173, 177.
Type: ***Cynips megacephalus*** Fabricius. Monob.
Caratomus Dalman, 1822. Svenska Vetensk. Akad. Handl. 43: 403. Emend.

cancellatus Cockerell. Colo.
Cratomus cancellatus Cockerell, 1916. Ent. News 27: 417. ♂.

leucophthalmus Ashmead. Ont.
Caratomus leucophthalmus Ashmead, 1888. Canad. Ent. 20: 55. ♂.

megacephalus (Fabricius). N. J., Ill.
Cynips megacephala Fabricius, 1793. Ent. System., v. 2, p. 103.
Caratomus megalocephalus Schulz, 1906. Spolia Hym., p. 144. Emend.

Tribe HALTICOPTERINI

Genus HALTICOPTERA Spinola

Halticoptera Spinola, 1811. Paris Mus. Hist. Nat. Ann. 17: 148.
Type: ***Diplolepis flavicornis*** Spinola. Desig. by Ashmead, 1904.
Phagonia Curtis, 1832. Brit. Ent., v. 9, p. 427.
Type: ***Diplolepis flavicornis*** Spinola. Orig. desig.

Dicyclus Walker, 1833. Ent. Mag. 1: 371, 455.
Type: ***Dicyclus aeneus*** Walker. Desig. by Westwood, 1840.
Megorismus Walker, 1846. List Hym. Brit. Mus., v. 1, p. 29. N. syn.
Type: ***Miscogaster daiphron*** Walker. Monob.
Megalorismus Schulz, 1906. Spolia Hym., p. 147. Emend. N. syn.

aenea (Walker). Throughout East. and Cent. U. S.; Ariz., Calif., Ont. Hosts: *Phloeosinus dentatus* (Say); *Phytophaga destructor* (Say); *Agromyza angulata* Loew; *A. citreifrons* Mall.; *A. coquilletti* Mall.; *A. melampyga* Loew; *A. parvicornis* Loew; *A. pusilla* Meig.; *A. virens* Loew; *Cerodonta dorsalis* Loew; *C. femoralis* (Meig.); *Phytomyza delphiniae* Frost; *Meromyza americana* Fitch; *Oscinella* sp.
Dicyclus aeneus Walker, 1833. Ent. Mag 1: 456. ♀.
Cyrtogaster liqueatus Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 336. ♂.
Cyrtogaster occidentalis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 230. ♂ ♀ .
Cyrtogaster citripes Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 230. ♂.
Polycyrtus (!) ***floridanus*** Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 230. ♂.
Polycystus foersteri Crawford, 1913. U. S. Natl. Mus. Proc. 45: 313. ♂ ♀.
Biology: Lange, 1944. Jour. Econ. Ent. 37: 394–395.
Taxonomy: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 116–121.

brodiei Ashmead. Ont., Conn., N. J.
Halticoptera Brodiei Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 192. ♀.

goodi Crawford. N. S.
Halticoptera goodi Crawford, 1915. Insecutor Inscitiae Menstruus 3: 107. ♂ ♀.

stella Girault. Calif.
Halticoptera stella Girault, 1917 (May). Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 1. ♀.
Megorismus poloni Girault, 1917 (June). Psyche 24: 27. ♀.

Tribe SPHEGIGASTERINI

Genus TRIGONOGASTRA Ashmead

Trigonogastra Ashmead, 1904. Carnegie Mus. Mem. 1: 330.
Type: ***Trigonogastra aurata*** Ashmead. Monob.

aurata Ashmead. Mich.
Trigonogastra aurata Ashmead, 1904. Carnegie Mus. Mem. 1: 330, 392. ♀.
Taxonomy: Gahan and Peck, 1946. Wash. Acad. Sci. Jour. 36: 317.

Genus CYRTOGASTER Walker

Cyrtogaster Walker, 1833. Ent. Mag. 1: 371, 381.
Type: ***Cyrtogaster rufipes*** Walker. Desig. by Westwood, 1840.

glasgowi Crawford. Ill. Host: *Brachydeutera argentata* (Wlkr.).
Cyrtogaster glasgowi Crawford, 1914. Insecutor Inscitiae Menstruus 2: 36. ♂ ♀.

vulgaris Walker. B. C. Host: *Phytomyza ilicis* Curt.
Cyrtogaster vulgaris Walker, 1833. Ent. Mag. 1: 382. ♂ ♀.
Biology: Cameron, 1939. Bul. Ent. Res. 30: 178–180, 197–199.

Genus GYRINOPHAGUS Ruschka

Gyrinophagus Ruschka, 1914. Zool.-Bot. Gesell. Wien, Verh. 64: 208.
Type: ***Gyrinophagus luteipes*** Ruschka. Monob

dineutis (Ashmead) n. comb. N. J., Mich., Iowa. Hosts: *Dineutes assimilis* (Kby.); *Gyrinus* sp.
Cyrtogaster dineutis Ashmead, 1894. Canad. Ent. 26: 26. ♀.
Biology: Butcher, 1933. Ent. Soc. Amer. Ann. 26: 83.—Galtsoff, Lutz, Welch, and Needham, 1937. Culture Methods for Invertebrate Animals, pp. 496–497.

Genus EURYDINOTA Foerster

Eurydinota Foerster, 1878 Naturh. Ver. Rheinlande Verh. 35: 42.
Type: ***Eurydinota leptomera*** Foerster. Monob.

lividicorpus Girault. Que., Maine, Conn., Pa., Va., Wis., Calif., Oreg., Wash. Hosts: *Coleophora malivorella* Riley; *C. pruniella* Clem.; *C. sacramenta* Heinr.; *C. salmani* Heinr.
Eurydinota lividicorpus Girault, 1917. Brooklyn Ent. Soc. Bul. 12: 86. ♂ ♀.
Biology: [Christensen] 1934. Wis. Agr. Expt. Sta. Bul. 428: 101.—Beacher, 1947. Ent. Soc. Amer. Ann. 40: 532–544.

rufiventris Girault. Ga.
Eurydinota rufiventris Girault, 1920. U. S. Natl. Mus. Proc. 58: 212. ♀.

Genus HETEROSCHEMA Gahan

Heteroschema Gahan, 1919. U. S. Natl. Mus. Proc. 55: 126.
Type: (***Heteroschema prima*** Gahan) = ***Pteromalus rugosopunctata*** Ashmead. Monob.
Revision: Gahan, 1938. Ent. Soc. Wash. Proc. 40: 222–224.

aeneiventris (Ashmead), n. comb. Kans.
Sphegigaster aeneiventris Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VI. ♂.

punctata (Ashmead). Fla., Ariz. Hosts: *Paroxyna piccicola* Bigot; *Agromyza virens* Loew.
Glyphe punctata Ashmead, 1894. Linn. Soc. London, Jour., Zool. 25: 162 ♀.

rugosopunctata (Ashmead) Ariz ; St Vincent Isl. Host: *Agromyza gibsoni* Mall.
Pteromalus rugosopunctatus Ashmead, 1894. Linn Soc. London, Jour. Zool. 25: 165. ♂ ♀.
Heteroschema prima Gahan, 1919. U. S. Natl. Mus. Proc. 55: 126. ♂ ♀.

Genus PANSTENON Walker

Panstenon Walker 1846. List Hym. Brit. Mus. v. 1, p. 29.
Type: ***Miscogaster oxylus*** Walker. Monob.

columbianum Ashmead. D. C.
Panstenon columbiana Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 231. ♀.

Subfamily PTEROMALINAE

Revision: Kurdjumov, 1913. Rev. Russe d'Ent. 13: 1–24.

Tribe EUNOTINI

Revision: Masi, 1931. Eos 7: 411–459. (Eunotinae).

Genus TOMOCERA Howard

Tomocera Howard, 1881. *In* Comstock, U. S. Dept. Agr. Ann Rpt. for 1880, p. 368.
Type: ***Tomocera californica*** Howard. Monob.
Dilophogaster Howard, 1886. Ent. Amer. 2: 98. N. name.
Eunotomyia Masi, 1917. Nov. Zool. 24: 297.
Type: ***Eunotomyia festiva*** Masi. Monob.
Revision: Mercet, 1924. Soc. Españ. Hist. Nat. Bol. 24: 422–426.

californica Howard. Calif. Hosts: ?*Sympherobius californicus* Banks; *Coccus hesperidum* L.; *Saissetia oleae* (Bern.); *Microterys flavus* (How.).
Tomocera californica Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, pp. 252, 368. ♀.
Biology: Smith and Compere, 1928. Calif. Univ. Pubs., Ent. 4: 242, 317–321.—Essig, 1931. A Hist. of Ent., pp. 139–143, 334–335, 366, 387.

Genus EUNOTUS Walker

Eunotus Walker, 1834. Ent. Mag. 2: 297.
Type: ***Eunotus cretaceus*** Walker. Monob.
Megapelte Foerster, 1856. Hym. Stud., v. 2, p. 63. N. name.

americanus Girault. Maine. Host: *Eriopeltis festucae* Fonsc.
Eunotus americanus Girault, 1915. Ent. Soc. Amer. Ann. 8: 273. ♂ ♀.

lividus Ashmead. Ont., N. Y., N. J., Ohio, N. C., Ga., Colo. Hosts: *Lecanium corni* Bouché; *L. nigrofasciatum* Perg.; *Pulvinaria vitis* (L.).
Eunotus lividus Ashmead, 1892. Ent. Soc. Wash. Proc. 2: 288. ♀.
Biology: Smith, 1906. N. J. Agr. Expt. Sta. Ann. Rpt. 26: 606–607.—Johnson, 1906. Colo. Agr. Expt. Sta. Bul. 116: 11.

Genus SCUTELLISTA Motschulsky

Scutellista Motschulsky, 1859. Études Ent. 8: 172, 177.
Type: ***Scutellista cyanea*** Motschulsky. Monob.
Aspidocoris Costa, 1863. Ann. Accad. Aspiranti Nat. Napoli (3) 2: Bol. p. 25.
Type: ***Aspidocoris cyaneus*** Costa. Monob.
Revision: Masi, 1931. Eos 7: 456–459.

cyanea Motchulsky. D. C., Fla., La., Calif. Hosts: ?*Ceroplastes floridensis* Comst.; *Coccus hesperidum* L.; *Lecanium corni* Bouché; *Phenacoccus artemisiae* Ehrh.; *Saissetia hemisphaerica* (Targ.); *S. nigra* (Nietn.); *S. oleae* (Bern.).
Scutellista cyanea Motschulsky, 1859. Études Ent. 8: 172. ♂ ♀.
Biology: Essig, 1931. A Hist. of Ent., pp. 335-337, 360, 388.—Woglum, LaFollette, Landon, and Lewis, 1947. Jour. Econ. Ent. 40: 818–819.
Taxonomy: Smith and Compere, 1928. Calif. Univ. Pubs., Ent. 4: 242, 322–332.

Tribe PIRENINI

Revision: Ferrière, 1934. Schweiz. Ent. Gesell. Mitt. 16: 83–92. (Pireninae.)

Genus PIRENE Haliday

Pirene Haliday, 1833. Ent. Mag. 1: 336.
Type: ***Pirene varicornis*** Haliday. Desig. by Westwood, 1840.
Corynocere Nees, 1834. Hym. Ichn. Aff. Monog., v. 2, p. 123.
Type: ***Corynocere deplana*** Nees. Desig. by Gahan and Fagan, 1923.
Phocion Girault, 1925. Insecutor Inscitiae Menstruus 13: 91.
Type: ***Phocion ipswichi*** Girault. Orig. desig.
Pirenisca Ghesquière, 1946. Rev. Zool. Bot. Africaines 34: 369. N. name.

marylandensis Girault. Md.
Pirene marylandensis Girault, 1916. Brooklyn Ent. Soc. Bul. 11: 88. ♀.

marylandica Girault. Md.
Pirene marylandica Girault, 1916. Canad. Ent. 48: 116. ♀.

Genus SPATHOPUS Ashmead

Spathopus Ashmead, 1904. Carnegie Mus. Mem. 1: 272.
Type: ***Spathopus anomalipes*** Ashmead. Monob.
Revision: Ferrière, 1934. Schweiz. Ent. Gesell. Mitt. 16: 86, 88.

anomalipes Ashmead. Fla.
Spathopus anomalipes Ashmead, 1904. Carnegie Mus. Mem. 1: 272. ♀.
Taxonomy: Gahan and Peck, 1946. Wash. Acad. Sci. Jour. 36: 316.

Genus MORODORA Gahan

Morodora Gahan, 1933. Canad. Ent. 65: 31.
Type: ***Morodora armata*** Gahan. Monob.

armata Gahan. Mont. Host: *Apaulina avium* (Shan. and Dobr.).
Morodora armata Gahan, 1933. Canad. Ent. 65: 32. ♂ ♀.

Genus PARECRIZOTES Girault

Parecrizotes Girault, 1916. Ent. Soc. Amer. Ann. 9: 304.
Type: ***Parecrizotes marylandensis*** Girault. Monob.

marylandensis Girault. Md.
Parecrizotes marylandensis Girault, 1916. Ent. Soc. Amer. Ann. 9: 305. ♂ ♀.

Genus STIGMATOCREPIS Ashmead

Stigmatocrepis Ashmead, 1904. Carnegie Mus. Mem. 1: 273, 274.
Type: ***Stigmatocrepis americana*** Ashmead. Monob.

americana Ashmead. Fla.
Stigmatocrepis americana Ashmead, 1904. Carnegie Mus. Mem. 1: 273, 389. ♂ ♀.
Taxonomy: Gahan and Peck, 1946. Wash. Acad. Sci. Jour. 36: 316.

Genus DIPACHYSTIGMA Crawford

Dipachystigma Crawford, 1911. U. S. Natl. Mus. Proc. 39: 618.
Type: ***Dipachystigma cushmani*** Crawford. Monob.

cushmani Crawford. La. Host: *Stephanoderes* sp.
Dipachystigma cushmani Crawford, 1911. U. S. Natl. Mus. Proc. 39: 619. ♀.

secundum Girault. D. C.
Dipachystigma secunda Girault, 1917. Descr. Stellarum Nov., p. 15. ♀.

Tribe BRACHYSCELIDIPHAGINI

Genus HEMADAS Crawford

Hemadas Crawford, 1909. Canad. Ent. 41: 98.
Type: ***Megorismus nubilipennis*** Ashmead. Monob.
Parhabritys Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 2.
Revision: Gahan and Ferrière, 1947. Ent. Soc. Amer. Ann. 40: 292.

nubilipennis (Ashmead). Ont., Maine, Conn., N. J., Ind., Fla. Hosts: Galls on *Vaccinium* spp.
Megorismus nubilipennis Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 192. ♀.
Biology: Driggers, 1927. N. Y. Ent. Soc. Jour. 35: 253–259.—McAlister and Anderson, 1932. Jour. Econ. Ent. 25: 1164–1169.
Morphology: Snodgrass, 1910. U. S. Natl. Mus. Proc. 39: 65.

Tribe TRIDYMINI

Genus TRIGONODERUS Westwood

Trigonoderus Westwood, 1832. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 1: 127.
Type: ***Trigonoderus princeps*** Westwood. Monob.
Revision: Girault, 1917. Ent. News 28: 396–397.

aegeriae Ashmead. Fla. Host: ?*Melittia cucurbitae* (Harr.).
Trigonoderus aegeriae Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 192. ♀.

algonquiniae Girault, emend. Conn., Ill.
Trigonoderus algonquinia Girault, 1917. Ent. News 28: 396. ♀.

conicus Girault. Ariz.
Trigonoderus conicus Girault, 1917. Ent. News 28: 396. ♀.

irvingi Girault. Colo.
Trigonoderus irvingi Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 15. ♀.

nonstylatus Girault. East. U. S. Host: Itonidid.
Trigonoderus nonstylatus Girault, 1917. Ent. News 28: 396. ♀.

unguttus Girault. Md.
Trigonoderus unguttus Girault, 1917. Ent. News 28: 396. ♀.

Genus ELACHERTODOMYIA Girault

Elachertodomyia Girault, 1917. Canad. Ent. 49: 110.
Type: *Secodes phloeotribi* Ashmead. Monob.

phloeotribi (Ashmead). Conn., N. J., Va. Hosts: *Lixus musculus* Say; *Chramesus hicoriae* Lec.; *Phloeotribus frontalis* (Oliv.); *Pseudopityophthorus minutissimus* (Zimm.).
Secodes phloeotribi Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 233. ♂ ♀.
Biology: Chittenden, 1898. Ent. Soc. Wash. Proc. 4: 78.
Taxonomy: Girault, 1917. Canad. Ent. 49: 110.

Genus TRIDYMUS Ratzeburg

Tridymus Ratzeburg, 1848. Ichn. d. Forstins., v. 2, p. 183.
Type: *Tridymus aphidum* Ratzeburg. Desig. by Ashmead, 1904.
Trydymus Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 8. Emend.

aeneicornis Girault. N. Y.
Trydymus aeneicornis Girault, 1917. Psyche 24: 98. ♀.

americensis Girault. Mich.
Trydymus americensis Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 8. ♀.

aphidis Girault. N. Y., Conn. Host: *Lasioptera vitis* O. S.
Trydymus aphidis Girault, 1917. U. S. Natl. Mus. Proc. 54: 450. ♀.

aureipes Girault. Fla.
Trydymus aureipes Girault, 1917. U. S. Natl. Mus. Proc. 53: 449. ♀.

biguttatipennis Girault. Conn., Fla.
Trydymus biguttatipennis Girault, 1917. U. S. Natl. Mus. Proc. 53: 449. ♀.

clavicornis Girault. Sask.
Trydymus clavicornis Girault, 1917. Descr. Hym. Chalcidoid. Variorum Cum Observ. V, p. 15. ♀.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 214.

gargantua Girault. Conn., N. Y.
Trydymus gargantua Girault, 1917. Psyche 24: 98. ♀.

metallicus Ashmead. N. Y., N. J., Kans. Host: *Rhabdophaga salicis* Schrank.
Tridymus metallicus Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. V. ♂ ♀.

nigriclava Girault, emend. Md.
Trydymus nigriclavus Girault, 1917. Chalcidoidea Nova Marilandensis, p. 2, ♀.

poloni Girault. N. H.
Trydymus poloni Girault, 1917. Psyche 24: 98. ♀.

robiniaecola Ashmead. W. Va., Va.
Tridymus robiniaecola Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 334. ♂ ♀.

Genus PARASYNTOMOCERA Girault

Parasyntomocera Girault, 1917. Chalcidoidea Nova Marilandensis II, p. 2.
Type: *Parasyntomocera hillmeadia* Girault. Monob.

hillmeadia Girault. Md.
Parasyntomocera hillmeadia Girault, 1917. Chalcidoidea Nova Marilandensis II, p. 2. ♀.

Genus SYSTASIS Walker

Systasis Walker, 1834. Ent. Mag. 2: 288, 296.
Type: ***Systasis encyrtoides*** Walker. Desig. by Westwood, 1840.

diplosidis Eckel. Mass., Calif. Hosts: *Retinodiplosis resinicoloides* (Will.); *R. resinicola* (O. S.).
Syntasis (!) ***diplosidis*** Eckel, 1903. Ent. News 14: 283. ♀.

Genus TEROBIA Foerster

Terobia Foerster, 1878. Naturh. Ver. Rheinlande Verh. 35: 64.
Type: ***Terobia dispila*** Foerster. Monob.

flora Girault. Fla.
Terobia flora Girault, 1920. U. S. Natl. Mus. Proc. 58: 216. ♂ ♀.

vulgaris Ashmead. Alaska.
Terobia vulgaris Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 144. ♂ ♀.

Genus ERIXESTUS Crawford

Erixestus Crawford, 1910. U. S. Natl. Mus. Proc. 38: 87.
Type: ***Erixestus winnemana*** Crawford. Monob.

winnemana Crawford. Que., Md., Va. Hosts: Eggs of *Calligrapha bigsbyana* (Kby.); *C. scalaris* (Lec.).
Erixestus winnemana Crawford, 1910. U. S. Natl. Mus. Proc. 38: 88. ♂ ♀.
Biology: Daviault, 1941. Nat. Canad. 68: 106–107.

Tribe MERISINI

Genus MERISUS Walker

Merisus Walker, 1834. Ent. Mag. 2: 166.
Type: ***Merisus splendidus*** Walker. Monob.
Parapteromalus Ashmead, 1904. Carnegie Mus. Mem. 1: 320. N. syn.
Type: ***Parapteromalus isosomatis*** Ashmead. Monob.

atriscapus Gahan. N. Dak. Host: *Stipa comata.*
Merisus atriscapus Gahan, 1927. U. S. Natl. Mus. Proc. 71 (4): 4. ♂ ♀.

cognatus Gahan. Calif. Host: *Phytophaga destructor* (Say).
Merisus cognatus Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 102. ♀.

cupraeus (Provancher), n. comb. "Canada," Ont. Hosts: *Megachile albitarsis* Cress.; *M. centuncularis* (L.).
Semiotellus cupraeus Provancher, 1881. Nat. Canad. 12: 295. ♂.

destructor (Say). Man., Ont., P. E. I.; N. Y. to N. C., Kans. and Minn.; Calif., Oreg., Wash. Hosts: ? *Hemerocampa leucostigma* (A. and S.); *Phytophaga destructor* (Say); *Platygaster hiemalis* Pack.; *P. vernalis* (Myers).
Ceraphron destructor Say, 1817. Acad. Nat. Sci. Phila. Jour. (1) 1: 47, 63.
Biology: Packard, 1916. Jour. Agr. Res. 6: 367.—McCulloch, 1923. Kans. Agr. Expt. Sta. Tech. Bul. 11: 64.—Hill, Pinckney, and Udine, 1939. U. S. Dept. Agr. Tech. Bul. 689: 4–15.
Taxonomy: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 89–95.

febriculosus Girault. Vt. to N. C., Tenn., Kans. and N. Dak. Hosts: *Phytophaga destructor* (Say); *Platygaster hiemalis* Pack.; *P. vernalis* (Myers); *Harmolita grandis* (Riley); *H. hordei* (Harr.); *H. tritici* (Fitch).
Merisus febriculosus Girault, 1917. Descr. Stellarum Nov., p. 17. ♀.
Biology: Hill, Pinckney, and Udine, 1939. U. S. Dept. Agr. Tech. Bul. 689: 4–7, 11–15.
Taxonomy: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 95–99.

flaviventris Girault. Md.
Merisus flaviventris Girault, 1915. Ent. Soc. Amer. Ann. 8: 282. ♀.

harmolitae Gahan. Calif. Host: *Harmolita grandis* (Riley).
Merisus harmolitae Gahan, 1928. U. S. Natl. Mus. Proc. 71 (4): 2. ♂ ♀.

isosomatis (Ashmead), n. comb. Ind., Ill. Hosts: *Harmolita hordei* (Harr.); *H.* spp.
Parapteromalus isosomatis Ashmead, 1904. Carnegie Mus. Mem. 1: 318, 384. ♀.
Merisus carinatus Girault, 1916. Soc. Ent. 31: 57. ♂ ♀.
Taxonomy: Gahan and Peck, 1946. Wash. Acad. Sci. Jour. 36: 316.

mordellistenae Crawford. Pa., D. C., Va., Ohio, Ind., Kans., Tex. Hosts: *Mordellistena andreae* var. *pustulata* Melsh.; ?*Mordellista* sp. in *Phleum pratense*; *Phytophaga destructor* (Say); *Harmolita* sp. ex wheat straw.
Merisus mordellistenae Crawford, 1910. Ent. Soc. Wash. Proc. 12: 145. ♀.
Morphology: Hill and Pinckney, 1940. U. S. Dept. Agr. Tech. Bul. 715: 9, 11–13.
Taxonomy: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 99–102.

octoguttatus Girault. Md.
Merisus octoguttata (!) Girault, 1915. N. Y. Ent. Soc. Jour. 23: 166. ♀.

semilongifasciatus Girault. Md.
Merisus semilongifasciata (!) Girault, 1915. Ent. Soc. Amer. Ann. 8: 282. ♀.

texensis Girault. Tex.
Merisus texensis Girault, 1917. Descr. Stellarum Nov., p. 17. ♀.

Genus MERISOPORUS Masi

Merisoporus Masi, 1926. Mus. Civ. Stor. Nat. Genova Ann. 50: 226.
Type: ***Homoporus luniger*** Nees. Orig. desig.

chalcidiphagus (Walsh and Riley). Ont., N. Y. to S. C., Tenn., Kans., Nebr., and N. Dak.; Mont., Oreg. Hosts: *Phytophaga destructor* (Say); *Ditropinotus aureoviridis* (Cwfd.); *Harmolita atlantica* P. and E.; *H. elymicola* P. and E.; *H. grandis* (Riley); *H. hordei* (Harr.); *H. secale* (Fitch); *H. tritici* (Fitch); *H. vaginicola* (Doane).
Semiotellus chalcidiphagus Walsh and Riley, 1869. Amer. Ent. 1: 152. ♂ ♀.
Biology: Phillips and Poos, 1921. Jour. Agr. Res. 21: 405–406.—Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 104–109.

Genus CALLITULA Spinola

Callitula Spinola, 1811. Paris Mus. Hist. Nat. Ann. 17: 151.
Type: ***Callitula bicolor*** Spinola. Monob.
Micromelus Walker, 1833. Ent. Mag. 1: 371, 464.
Type: (***Micromelus rufomaculatus*** Walker)=***Callitula bicolor*** Spinola. Desig. by Westwood, 1840.
Baeotomus Foerster, 1856. Hym. Stud., v. 2, p. 145. N. name.

bicolor Spinola. N. Y. to Va., Ind. and Mich.; Kans., N. Dak. Hosts: *Phytophaga destructor* (Say); *Meromyza americana* Fitch; *Oscinella frit* (L.); *Platygaster vernalis* (Myers); *P. zosine* Wlkr.
Callitula bicolor Spinola, 1811. Paris Mus. Hist. Nat. Ann. 17: 151.
Biology: Hill and Smith, 1928. Jour. Agr. Res. 36: 153–155.—Hill, Pinckney, and Udine, 1939. U. S. Dept. Agr. Tech. Bul. 689: 13.
Morphology: Hill and Pinckney, 1940. U. S. Dept. Agr. Tech. Bul. 715: 5, 11–13.

cyrene (Walker), n. comb. Fla.
Micromelus cyrene Walker, 1843. Soc. Ent. France Ann. 2 (1): 154. ♀.

illinoensis (Ashmead). Ill.
Cryptoprymnus illinoensis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 228. ♀.

Tribe RHAPHITELINI

Genus RHAPHITELUS Walker

Rhaphitelus Walker, 1834. Ent. Mag. 2: 168, 178.
Type: ***Rhaphitelus maculatus*** Walker. Monob.
Styloceras Ratzeburg, 1844. Ichn. d. Forstins., v. 1, p. 207.
Type: (***Styloceras ladenbergii*** Ratzeburg)=***Rhaphitelus maculatus*** Walker. Desig. by Gahan and Fagan, 1923.

Rhaphidotelus Agassiz, 1846. Nomencl. Zool., Index Univ., p. 932. Emend.
Storthyocerus Ratzeburg, 1848 Ichn. d. Forstins., v. 2, p. 208. N. name.
Revision: Ferrière, 1948. Schweiz. Ent. Gesell. Mitt. 21: 526–528.

maculatus Walker. N. Y., Conn., N. J., Ohio, N. C., Calif. Hosts: *Magdalis armicollis* (Say); *M. barbita* (Say); *Magdalis* spp.; *Pissodes strobi* (Peck); *Scolytus rugulosus* (Ratz.).
Rhaphitelus maculatus Walker, 1834. Ent. Mag. 2: 179. ♂.
Biology: morphology: Russo, 1938: R. Lab. Ent. Agr. Portici Bol. 2: 216–225.

Tribe PTEROMALINI

Genus PACHYCERAS Ratzeburg

Pachyceras Ratzeburg, 1844. Ichn. d. Forstins., v. 1, table facing p. 40; p. 217.
Type: ***Pachyceras xylophagorum*** Ratzeburg. Autob.
Roptrocerus Ratzeburg, 1848. Ichn. d. Forstins., v. 2, p. 209. N. name. Unnecessarily proposed.
Type: ***Pachyceras xylophagorum*** Ratzeburg. Desig. by Ashmead, 1904.
Rhoptrocerus Dalla Torre, 1898. Cat. Hym., v. 5, p. 98. Emend.

eccoptogastri Ratzeburg. N. Y., Va., N. C., Mont.; Idaho, Wash. Hosts: *Dendroctonus frontalis* Zimm.; *D. monticolae* Hopk.; *D. pseudotsugae* Hopk.; *Ips calligraphus* (Germ.); ?*I. grandicollis* (Eichh.); *I. pini* (Say); *Orthotomicus caelatus* (Eichh.).
Pachyceras Eccoptogastri Ratzeburg, 1844. Ichn. d. Forstins. v. 1, p. 218 ♀.
Biology: Evenden, 1943. U. S. Dept. Agr. Cir. 664: 17.

rectus (Provancher). Que., N. Y., Mich., Calif.
Roptrocerus rectus Provancher 1887. Addit. Corr. Faune Ent. Canada Hym., p. 202. ♀.

xylophagorum Ratzeburg. N. H. to N. C., La. Hosts: ?*Orthotomicus caelatus* (Eichh.); ?*Phloeosinus dentatus* (Say); *Polygraphus rufipennis* (Kby.); *Scolytus rugulosus* (Ratz.).
Pachyceras Xylophagorum Ratzeburg, 1844. Ichn. d. Forstins., v. 1, p. 218. ♀.
Platygerrhus (?) ***scolyti*** Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 335. "♀"=♂. N. syn.

Genus METACOLUS Foerster

Metacolus Foerster, 1856. Hym. Stud., v. 2, pp. 65, 70.
Type: ***Metacolus unifasciatus*** Foerster. Monob.

bifasciatus Girault. ?W. Va.
Metacolus bifasciatus Girault, 1917. Descr. Stellarum Nov., p. 14. ♂ ♀.

fasciatus Girault. N. Mex.
Metacolus fasciatus Girault, 1917. Descr. Stellarum Nov., p. 14. ♀.

Genus DINOTISCUS Ghesquière

Dinotus Foerster, 1856. Hym. Stud., v. 2, pp. 66, 70. No species. Preocc.
Type: ***Dinotus bidentulus*** Thomson. Desig. by Ashmead, 1904.
Dinotiscus Ghesquière, 1946. Rev. Zool. Bot. Africaines 34: 370. N. name.

agrili (Rohwer), n. comb. Calif. Host: *Agrilus angelicus* Horn.
Dinotus agrili Rohwer, 1919. Ent. Soc. Wash. Proc. 21: 6. ♀.

elongatus (Ashmead), n. comb. ?Fla.
Dinotus elongatus Ashmead, 1888. Canad. Ent. 20: 175. ♀.

Genus RHOPALICUS Foerster

Rhopalicus Foerster, 1856. Hym. Stud., v. 2, pp. 66, 70.
Type: (***Cleonymus maculifer*** Foerster)=***Cheiropachus tutela*** Walker. Monob.

pallipes Provancher. Que.
Rhopalicus pallpies (!) Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 407. ♀. (*R. pallipes* in index.)
Rhopalicus pallidipes Dalla Torre, 1898. Cat. Hym., v. 5, p. 177. Emend.

pulchripennis (Crawford). Maine, N. H., Mass., N. Y., Mich., Mont., Calif., Wash. Hosts: *Cylindrocopturus eatoni* Buch.; *C. furnissi* Buch.; *Dendroctonus monticolae* Hopk.; *Pissodes strobi* Peck; *P.* sp.; ?*Polygraphus rufipennis* (Kby.); ?*Scolytus piceae* (Swaine); ?*Coeloides dendroctoni* Cush.
Spintherus pulchripennis Crawford, 1912. U. S. Natl. Mus. Proc. 43: 168. ♀.
Rhopalicus americanus Girault, 1916. Ent. Soc. Amer. Ann. 9: 296. ♀.
Biology: Taylor, 1929. Ent. Amer. 10: 17–22, 66–67. ♂ ♀.
Taxonomy: Gahan, 1924. U. S. Natl. Mus. Proc. 65 (4): 16.

tutela (Walker). N. H., Conn. Hosts: *Pissodes notatus* (F.); *P. strobi* (Peck).
Cheiropachus tutela Walker, 1836. Ent. Mag. 4: 14. ♂ ♀.
Pteromalus suspensus Ratzeburg, 1844. Ichn. d. Forstins., v. 1 p. 189.
Taxonomy: Ferrière, 1948. Schweiz. Ent. Gesell. Mitt. 21: 519–521.

Genus AMBLYMERUS Walker

Amblymerus Walker, 1834. Ent. Mag. 2: 303, 306.
Type: ***Amblymerus amoenus*** Walker. Desig. by Westwood, 1840.
Eutelus Walker, 1834. Ent. Mag. 2: 351, 356.
Type: (***Eutelus dilectus*** Walker)=***Amblymerus amoenus*** Walker. Desig. by Westwood, 1840.

betulae (Girault), n. comb. N. Y. Host: *Semudobia betulae* Winnertz.
Eutelus betulae Girault, 1917. Psyche 24: 93. ♂ ♀.

bruchophagi (Gahan). Wyo., Utah, Calif., Idaho. Hosts: *Bruchophagus gibbus* (Boh.); ?*B. mexicanus* Ashm.
Eutelus bruchophagi Gahan, 1917. U. S. Natl. Mus. Proc. 53: 212. ♂ ♀.
Biology: Sorenson, 1934. Utah Agr. Expt. Sta. Bul. 250: 50.
Biology and morphology: Urbahns, 1919. Jour. Agr. Res. 16: 171–172.

confusus (Ashmead), n. comb. Alaska, Mont. Host: ?*Ips oregonis* (Eichh.).
Eutelus confusus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 145. ♂ ♀.

flavipes (Walker). Oreg., Wash. Host: *Cheilosia alaskensis* Hunter.
Eutelus flavipes Walker, 1834. Ent. Mag. 2: 364. ♀.

justicia Girault. N. Mex., Calif. Host: *Diarthronomyia hypogaea* Loew.
Amblymerus justicia Girault, 1917. Descr. Stellarum Nov., p. 21. ♂ ♀.

mayetiolae (Gahan). Calif., Oreg., Wash. Hosts: *Phytophaga destructor* (Say); *Harmolita* sp. on canary grass.
Eutelus mayetiolae Gahan, 1919. U. S. Natl. Mus. Proc. 55: 128. ♂ ♀.
Biology: Packard, 1928. U. S. Dept. Agr. Tech. Bul. 81: 14.—Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 65–67.

ruskini (Girault), n. comb. Colo.
Eutelus ruskini Girault, 1917 (1916). Insecutor Inscitiae Menstruus 4: 113. ♀.

salicis (Girault), n. comb. Mass. Host: Itonidid gall on *Salix longifolia*.
Eutelus salicis Girault, 1917. Psyche 24: 94. ♀.

verditer (Norton). Ont. to N. J.; Man., Idaho, Oreg., B. C. Hosts: *Camptylochila aemula* (Hbn.); *Barbara colfaxiana colfaxiana* (Kearf.); *Taniva albolineana* (Kearf.); *Choristoneura fumiferana* (Clem.); *Tortrix packardiana* Fern.; *Diprion hercyniae* (Htg.); *D. similis* (Htg.); *Neodiprion abietis* (Harr.); *N. tsugae* Middl.; *Phytodietus fumiferanae* Roh.
Pteromalus verditer Norton, 1869. Amer. Ent. Soc. Trans. 2: 327. ♂ ♀.
Biology: Dowden, Buchanan, and Carolin, 1948. Jour. Econ. Ent. 41: 459.
Taxonomy: Gahan, 1938. Ent. Soc. Wash. Proc. 40: 222.

Genus ZACALOCHLORA Crawford

Zacalochlora Crawford, 1913. U. S. Natl. Mus. Proc. 45: 251.
Type: ***Zacalochlora milleri*** Crawford. Monob.

milleri Crawford. Calif. Host: *Laspeyresia* spp. in cones of *Pinus jeffreyi*.
Zacalochlora milleri Crawford, 1913. U. S. Natl. Mus. Proc. 45: 251. ♀.

Genus PLATYTERMA Walker

Platyterma Walker, 1834. Ent. Mag. 2: 303.
Type: ***Platyterma nobile*** Walker. Desig. by Westwood, 1840.
Platytermus Thomson, 1878. Hym. Scand., v. 5, p. 75. Emend.

citripes Ashmead. Colo., Wyo.
Platyterma citripes Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 223. ♀.

fuscipes Ashmead. Mich.
Platyterma fuscipes Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 223. ♀.

Genus COELOPISTHIA Foerster

Coelopisthia Foerster, 1856. Hym. Stud., v. 2, p. 65 (no species).
Type: ***Pteromalus cephalotes*** Walker. Desig. by Ashmead, 1904.
Coelopisthus Thomson, 1878. Hym. Scand., v. 5, p. 162. Emend.

bicarinata Girault. No. Amer.
Coelopisthia bicarinata Girault, 1916. Soc. Ent. 31: 57. ♂ ♀.

forbesii (Dalla Torre). N. J., Ill., La. Hosts: *Apantesis nais* (Drury); *Catocala* sp. on hickory.
Pteromalus pallipes Forbes, 1885. Ill. State Dept. Agr. Trans. 22: App. pp. 46, 49. Preocc.
Pteromalus forbesii Dalla Torre, 1898. Cat. Hym., v. 5, p. 125. N. name.
Taxonomy: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 145–146.

fumosipennis Gahan. Md. Host: Lepidopterous pupa.
Coelopisthia fumosipennis Gahan, 1909. Canad. Ent. 41: 431. ♀.

intermedia Girault. D. C.
Coelopisthia intermedia Girault, 1916. Soc. Ent. 31: 57. ♀.

smithii Gahan. N. J.
Coelopisthia smithii Gahan, 1913. Canad. Ent. 45: 179.

suborbicularis (Provancher). Que., N. H., Md., Ill. Host: ?*Pissodes strobi* (Peck); *Agrotis* sp.; caterpillar in *Solidago* gall; *Itopleclis conquisitor* (Say).
Semiotellus suborbicularis Provancher, 1881. Nat. Canad. 12: 296. ♀.
Biology: Fiske, 1903. N. H. Agr. Expt. Sta. Tech. Bul. 6: 182, 197, 228.

Genus DIBRACHOIDES Kurdjumov

Dibrachoides Kurdjumov, 1913. Rev. Russe d'Ent. 13: 12.
Type: ***Pteromalus dynastes*** Foerster. Monob.

dynastes (Foerster). Utah, Oreg., Wash. Hosts: *Hypera nigrirostris* (F.); *H. postica* (Gyll.); *H. rumicis* (L.).
Pteromalus dynastes Foerster, 1840. Beitr. Monog. Pteromalidae, p. 24. ♀.
Biology: Smith, 1930. Ent. Soc. Amer. Ann. 23: 577–593.

Genus BELONURA Ashmead

Belonura Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 224.
Type: ***Belonura singularis*** Ashmead. Monob.

singularis Ashmead. Maine, Mass., Va., Ga.
Belonura singularis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 225. ♀.

Genus UROLEPIS Walker

Urolepis Walker, 1846. List Hym. Brit. Mus., v. 1, p. 26.
Type: ***Ormocerus maritimus*** Walker. Monob.
Halizoa Foerster, 1856. Hym. Stud., v. 2, p. 145. N. name.

rufipes (Ashmead). Calif. Host: *Ephydra hians* Say.
Halizoa rufipes Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 225. ♂ ♀.

Genus EPIPTEROMALUS Ashmead

Epipteromalus Ashmead, 1904. Carnegie Mus. Mem. 1: 319.
Type: *Epipteromalus algonquinensis* Ashmead. Monob.

algonquinensis Ashmead. Ill.
Epipteromalus algonquinensis Ashmead, 1904. Carnegie Mus. Mem. 1: 318–319. ♀.
Polycystus gibbus Girault, 1920. U. S. Natl. Mus. Proc. 58: 212. ♀.
Taxonomy: Gahan and Peck, 1946. Wash. Acad. Sci. Jour. 36: 315.

Genus TRICHOMALUS Thomson

Trichomalus Thomson, 1878. Hym. Scand., v. 5, pp. 131, 134.
Type: *Trichomalus punctinucha* Thomson. Desig. by Ashmead, 1904.

fasciatus (Thomson). Wash. Host: *Ceutorhynchus assimilis* (Paykull).
Isocyrtus (*Trichomalus*) *fasciatus* Thomson, 1878. Hym. Scand., v. 5, p. 139. ♂ ♀.
Biology: Heymons, 1921. Ztschr. f. Angew. Ent. 8: 108–111.

Genus DIGLOCHIS Foerster

Diglochis Foerster, 1856. Hym. Stud., v. 2, p. 65 (no species).
Type: *Pteromalus complanatus* Ratzeburg. Included by Mayr, 1904.
Trichoglenus Thomson, 1878. Hym. Scand., v. 5, p. 146, 149.
Type: *Pteromalus complanatus* Ratzeburg. Monob.

occidentalis (Ashmead). Conn., Minn., Sask., Alta., Wash. Hosts: *Chrysops aestuans* Wulp; *C. excitans* Wlkr.; *C. mitis* O. S.
Trichoglenes (!) *occidentalis* Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 225. ♀.

Genus TRITNEPTIS Girault

Tritneptis Girault, 1908. Psyche, 15: 92.
Type: *Tritneptis hemerocampae* Girault. Monob.
Revision: Gahan, 1938. Ent. Soc. Wash. Proc. 40: 213–214.

diprionis Gahan. Maine, Mass., Minn. Host: *Neodiprion sertifer* (Geof.).
Tritneptis diprionis Gahan, 1938. Ent. Soc. Wash. Proc. 40: 217. ♂ ♀.

hemerocampae Girault. Que. to W. Va., Ill., Colo., B. C. Hosts: *Papilio ajax* L.; *Diacrisia virginica* (F.); *Estigmene acrea* (Drury); *Hemerocampa leucostigma* (A. and S.); *Stilpnotia salicis* (L.); *Carpocapsa pomonella* (L.); *Grapholitha molesta* (Busck); *Coleophora malivorella* Riley; *Diprion hercyniae* (Htg.).
Tritneptis hemerocampae Girault, 1908. Psyche 15: 90, 92. ♂ ♀.
Coelopisthia diacrisiae Crawford, 1910. Ent. Soc. Wash. Proc. 12: 145. ♀.
Amblymerus lipardis (!) Viereck, 1924. Canad. Ent. 56: 69. ♂ ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 6, 153.

klugii (Ratzeburg). Maine, Ont., Wis., Minn., Mont., Idaho, Oreg., B. C. Hosts: *Diprion hercyniae* (Htg.); *Neodiprion banksianae* Roh.; *N. tsugae* Midd.; *Pristiphora erichsonii* (Htg.).
Pteromalus Klugii Ratzeburg, 1844. Ichn. d. Forstins., v. 1, p. 198. ♀.
Pteromalus nematicida Packard, 1883. U. S. Dept. Agr. Ann. Rpt. for 1883, p. 146.
Biology: Hewitt, 1912. Canad. Dept. Agr. Div. Ent. Bul. 5: 28.—Finlayson and Reeks, 1936. Canad. Ent. 68: 163.—Finlayson, 1938. Ent. Soc. Ontario Ann. Rpt. 69: 34–35.

koebelei Gahan. Calif. Host: ?*Caliroa cerasi* (L.).
Tritneptis koebelei Gahan, 1938. Ent. Soc. Wash. Proc. 40: 218. ♂ ♀.

scutellata (Muesebeck). New England. Host: *Apanteles melanoscelus* (Ratz.).
Coelopisthia scutellata Muesebeck, 1927. Jour. Agr. Res. 34: 331. ♂ ♀.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 27.

Genus PSEUDOMICROMELUS Gahan and Fagan

Micromelus Dalla Torre, 1898. Cat. Hym., v. 5, p. 184. Preocc.
Type: ***Micromelus silvanus*** Walker. Desig. by Gahan and Fagan, 1923.

Pseudomicromelus Gahan and Fagan, 1923. U. S. Natl. Mus. Bul. 124: 124. N. name.

deplanatus (Nees). Calif. Host: *Anarsia lineatella* Zell.

Pteromalus deplanatus Nees, 1834. Hym. Ichn. Aff. Monog., v. 2, p. 110. ♂ ♀.

Taxonomy: Gahan, 1938. Ent. Soc. Wash. Proc. 40: 226.

Genus DIBRACHYS Foerster

Dibrachys Foerster, 1856. Hym. Stud., v. 2, p. 65. No species.
Type: (***Pteromalus bouchéanus*** Ratzeburg)=***Pteromalus cavus*** Walker. Desig. by Thomson, 1878.

Coelopisthoidea Gahan, 1913. Canad. Ent. 45: 179.
Type: (***Coelopisthoidea cladiae*** Gahan)=***Pteromalus saltans*** Ratzeburg. Orig. desig.

cavus (Walker). East. U. S. and Canada, Colo., Utah, Calif., Oreg., Idaho, B. C. Hosts: *Sympherobius californicus* Banks; *Chrysopa californica* Coq.; *C. lateralis* Guer.; *C. majuscula* Banks; *Stegobium paniceum* (L.); *Sitophilus granarius* (L.); *S. oryza* (L.); ?*Pieris rapae* (L.); *Oeneis melissa semidea* (Say); *Samia cecropia* (L.); *Acronycta populi* Riley; *Camptylochila aemula* (Hbn.); *Peridroma margaritosa* (Haw.); *Hemerocampa leucostigma* (A. and S.); *H. vetusta* (Bdvl.); *Notolophus antiqua* (L.); *Porthetria dispar* L.; *Malacosoma americanum* (F.); *M. californicum* (Pack.); *M. constrictum* (Stretch); *M. disstria* Hbn.; *Lambdina fiscellaria somniaria* (Hulst); *Phlyctaenia rubigalis* (Guen.); *Dicymolomia pegasalis* (Wlkr.); *Galleria mellonella* (L.); *Plodia interpunctella* (Hbn.); *Barbara colfaxeana colfaxeana* (Kearf.); *Carpocapsa pomonella* (L.); *Epiblema scudderiana* (Clem.); *Grapholitha molesta* (Busck); *Taniva albolineana* (Kearf.); *Archips cerasivorana* (Fitch); *A. semiferana* (Wlkr.); *Argyrotaenia velutinana* (Wlkr.); *Tortrix packardiana* Fern.; *Anarsia lineatella* Zell.; *Dichomeris marginella* (F.); *Gnorimoschema gallaesolidaginis* (Riley); *G. operculella* (Zell.); *Sitotroga cerealella* (Oliv.); *Anthophila pariana* (Clerck); *Eurukuttarus confederata* (Grote); *Thyridopteryx ephemeraeformis* (Haw.); *Nemapogon granella* (L.); *Bigonicheta setipennis* (Fall.); *Compsilura concinnata* (Meig.); *Mericia aldrichi* (Tns.); *Nemorilla floralis* (Fall.); *Phorocera tortricis* Coq.; *Diprion hercyniae* (Htg.); *D. similis* (Htg.); *Neodiprion abietis* (Harr.); ?*Nematus ribesii* (Scop.); *Apanteles clisiocampae* Ashm.; *A. hyphantriae* Riley; *A. lacteicolor* Vier.; *A. melanoscelus* (Ratz.); *A. solitarius* (Ratz.); *Ascogaster quadridentata* Wesm.; *Bracon gelechiae* Ashm.; *B. johannseni* (Vier.); *B.* sp.; *Chelonus shoshoneanorum* Vier.; *Macrocentrus ancylivorus* Roh.; *M.* sp.; *Meteorus acronyctae* Mues.; *M. communis* (Cress.); *M. hyphantriae Riley*; *M. versicolor* (Wesm.); *Perilitus coccinellae* (Schrank); *Rogas stigmator* (Say); *Sphoeropyx bicolor* Cress.; braconid; *Bathyplectes curculionis* (Thoms.); *Bathythrix pimplae* (How.); *Campoplex validus* (Cress.); *Coccygomimus aequalis* (Prov.); *C. sanguinipes* (Cress.); *Erigorgus* sp.; *Gambrus extrematis* (Cress.); *Horogenes acutus* (Vier.); *Hyposoter fugitivus fugitivus* (Say); *H. fugitivus pacificus* Cush.; *H. pilosulus* (Prov.); *Iseropus coelebs* Walsh; *Itoplectis conquisitor* (Say); *Mastrus carpocapsae* (Cush.); *Phaeogenes walshiae* Ashm.; *Phobocampe clisiocampae* (Weed); *Polistiphaga fulva* (Cress.); *Theronia atalantae* (Poda); *Eurydinota lividicorpus* Gir.; *Habrocytus phycidis* Ashm.; ?*Pteromalus puparum* (L.); ?*Ceratosmicra debilis* (Say); *Epeira foliata* (Fourc.); *Philodromus aureolus* (Oliv.).

Pteromalus cavus Walker, 1835. Ent. Mag. 2: 477. ♂ ♀.

Pteromalus Bouchéanus Ratzeburg, 1844. Ichn. d. Forstins., v. 1, p. 196. ♀.

Cleonymus Clisiocampae Fitch, 1855. N. Y. State Agr. Soc. Trans. 15: 431. ♂ ♀.

Cheiropachus nigro-cyaneus Norton, 1869. Amer. Ent. Soc. Trans. 2: 327. ♀.

Pteromalus gelechiae Webster, 1883. Ill. State Dept. Agr. Trans. (n. s.) 12: 151. ♂ ♀.

Chiropachys nigrocyaneus Cresson, 1887. Amer. Ent. Soc. Trans. (sup. vol.), p. 242. Emend.

Pteromalus chionobae Howard, 1889. *In* Scudder, Butterflies of Eastern U. S. and Canada, pp. 1872, 1889. ♀

Arthrolytus apatelae Ashmead, 1893 Ohio Agr. Expt. Sta. Tech. Ser. Bul. 1: 162. ♀.

Arthrolytus pimplae Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 339. ♂ ♀.

Biology: Fiske, 1903. N. H. Agr. Expt. Sta. Tech. Bul. 6: 182, 197, 205–206, 213, 220, 224–227.—Morris, Cameron, and Jepson, 1937. Bul. Ent. Res. 28: 383, 390–391.—Gontarski, 1939. Ztschr. f. Morph. u. Ökol. der Tiere 35: 203–220.—Boyce, 1941. Ent. Soc. Ontario Ann. Rpt. 71: 41.

Taxonomy: Gahan, 1938. Ent. Soc. Wash. Proc. 40: 211.

confusus (Girault), n. comb. D. C.

Coelopisthia confusa Girault, 1916. Canad. Ent. 48: 246. ♀.

daphne Girault. Calif. Hosts: *Sympherobius barberi* (Banks); *S. californicus* Banks.

Dibrachys daphne Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 9. ♀.

saltans (Ratzeburg). Md., N. Dak., Wash. Hosts: *Cladius isomerus* Nort.; in stem of *Stipa comata*.

Pteromalus saltans Ratzeburg, 1852. Ichn. d. Forstins., v. 3, p. 232. ♂ ♀.

Coelopisthoidea cladiae Gahan, 1913. Canad. Ent. 45: 179. ♂ ♀.

Taxonomy: Gahan, 1938. Ent. Soc. Wash. Proc. 40: 212.

Genus EUPTEROMALUS Kurdjumov

Eupteromalus Kurdjumov, 1913. Rev. Russe d'Ent. 13: 12.
Type: ***Pteromalus nidulans*** Thomson. Orig. desig.

Nemicromelus Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 4.
Type: ***Merisus subapterus*** Riley. Monob.

americanus Gahan. Mich., Iowa, N. Dak., Wash., Oreg., Calif. Host: *Phytophaga destructor* (Say).

Eupteromalus americanus Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 82. ♂ ♀.

cognatus Gahan. Ohio. Hosts: *Epeira foliata* (Fourc.); *E. undata* (Oliv.); *Philodromus aureolus* (Oliv.).

Eupteromalus cognatus Gahan, 1924. U. S. Natl. Mus. Proc. 65 (4): 16. ♂ ♀.

Biology: Auten, 1925. Ent. Soc. Amer. Ann. 18: 242.

dubius (Ashmead). D. C., Ohio, Ill., Iowa, Wis. Hosts: *Toxomerus polita* (Say); ?*Masicera myoidea* Desv.; *M. senilis* Meig.; dipterous puparium in *Ambrosia* stem; *Microplitis gortynae* Riley; *Lissonota* sp.

Meraporus dubius Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 219. ♂ ♀.

Biology: Breakey, 1930. Ent. Soc. Amer. Ann. 23: 186.

leguminis Gahan. Wyo., Utah, Idaho, Nev., Oreg. Hosts: *Bruchus pisorum* (L.); *Bathyplectes curculionis* (Thoms.); *B.* sp.

Eupteromalus leguminis Gahan, 1937. Ent. Soc. Wash. Proc. 39: 63. ♂ ♀.

nidulans (Thomson) (*Pteromalus egregius* American authors, not Foerster). New England, east and west coasts of Canada. Hosts: *Nygmia phaeorrhoea* (Donov.); *Porthetria dispar* (L.); *Stilpnotia salicis* (L.); *Ceromasia senilis* Meig.; *Apanteles lacteicolor* Vier.; *A. melanoscelus* (Ratz.); *A. solitarius* (Ratz.); *Meteorus versicolor* (Wesm.); *Rogas unicolor* (Wesm.).

Pteromalus nidulans Thomson, 1878. Hym. Scand., v. 5, p. 155. ♂ ♀.

Biology: Howard and Fiske, 1911. U. S. Dept. Agr. Bur. Ent. Bul. 91: 61, 65, 69, 88, 262, 268–278, 309.—Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 28–29.—Proper, 1934. Jour. Agr. Res. 48: 360–375.—Jones, Webber, and Dowden, 1938. U. S. Dept. Agr. Cir. 459: 7–8, 14–24.

sarcophagae Gahan. Mich., Kans. Hosts: Mine of *Nepticula* sp. in *Scirpus occidentalis; Sarcophaga kellyi* Ald.

Eupteromalus sarcophagae Gahan, 1914. U. S. Natl. Mus. Proc. 48: 163. ♂ ♀.

subapterus (Riley). Ont. and N. Y. to N. C., Okla., and Minn.; Oreg. Hosts: *Phytophaga destructor* (Say); *Meromyza americana* Fitch; *Platygaster vernalis* (Myers).

Pteromalus? fulvipes Forbes, 1885. Ill. State Dept. Agr. Trans. 22: App. p. 47. ♂ ♀. Preocc.

Merisus (Homoporus) subapterus Riley, 1885. U. S. Natl. Mus. Proc. 8: 416. ♂ ♀.

Biology: Packard, 1916. Jour. Agr. Res. 6: 377–381.—McColloch, 1923. Kans. Agr. Expt. Sta. Tech. Bul. 11: 63, 67–69.

Taxonomy: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 75–82.

tachinae Gahan. Ont., Tenn., La. Hosts: *Cirphis unipuncta* (Haw.); *Archytas analis* (F.).

Eupteromalus tachinae Gahan, 1917. U. S. Natl. Mus. Proc. 53: 211. ♀.

viridescens (Walsh). N. H. to Va., Mo. and Iowa; La., Tex., Colo., Calif. Hosts: *Ampeloeca myron* (Cram.); *Ceratomia catalpae* (Bdvl.); *Protoparce quinquemaculata* (Haw.); *Smerinthus jamaicensis* (Drury); *Sphecodina abbotii* (Swains.); *Cirphis unipuncta* (Haw.); *Papaipema nebris* (Guen.); *Hemerocampa leucostigma* (A. and S.); *Apanteles congregatus* (Say); *A. limenitidis* (Riley); *A. marginiventris* (Cress.); *A. militaris* (Walsh); *A. papaipemae* Mues.; *A. smerinthi* Riley; *A.* spp.; *Bracon caulicola* (Gahan); *B. lutus* Prov.; *Macrocentrus pallisteri* DeGant; *Microplitis catalpae* (Riley); *M. gortynae* Riley; *Bathyplectes curculionis* (Thoms.); *Ichneumon astutus* (Holmg.); *Horogenes insularis* (Cress.).

Glyphe viridascens Walsh, 1861. Ill. State Agr. Soc. Trans. 4: 264, 370. ♀.

Glyphe viridescens Walsh, 1865. Ill. State Agr. Soc. Trans. 5: 11, 483. Emend.

Biology: Balduf, 1929. Ohio Jour. Sci. 29: 226–227, 237.—Decker, 1935. Iowa State Coll. Jour. Sci. 9: 572, 575–576.

Taxonomy: Gahan, 1921 (1920). Ent. Soc. Wash. Proc. 22: 240.

Genus LARIOPHAGUS Crawford

Lariophagus Crawford, 1909. Ent. Soc. Wash. Proc. 11: 52.
Type: ***Lariophagus texanus*** Crawford. Monob.

Revision: Gahan, 1927. U. S. Natl. Mus. Proc. 71 (4): 7.

distinguendus (Foerster). N. Y., Va., N. C., Tex. Hosts: *Lasioderma serricorne* (F.); *Stegobium panicea* (L.); *Rhyzopertha dominica* (F.); *Bruchus brachialis* Fahr.; *Sitophilus granarius* (L.); *S. oryza* (L.).

Pteromalus distinguendus Foerster, 1840. Beitr. Monog. Pteromalidae, p. 17. ♂.

Meraporus utibilis Tucker, 1910. Canad. Ent. 42: 341. ♀.

Taxonomy: Gahan, 1921 (1920). Ent. Soc. Wash. Proc. 22: 239.—Waterston, 1921. Grain Pests (War) Com. [Gt. Brit.] Rpt. 9: 15, 19–24.

Biology: Hase, 1920 (1919). Gesell. f. Naturf. Freunde Sitzber., pp. 402–432.

dryorhizoxeni (Ashmead), n. comb. Fla. Host: Gall of *Belonocnema treatae* Mayr.

Macroglenes dryorhizoxeni Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 133. ♀.

texanus Crawford. Ga., Tex. Hosts: *Algarobius prosopis* (Lec.); *Callosobruchus maculatus* (F.); *Mimosestes sallaei* (Sharp); *Anthonomus grandis* Boh.

Lariophagus texanus Crawford, 1909. Ent. Soc. Wash. Proc. 11: 51. ♂ ♀.

Biology: Pierce, Cushman, and Hood, 1912. U. S. Dept. Agr. Bur. Ent. Bul. 100: 42, 52–62.

Genus SCHIZONOTUS Ratzeburg

Schizonotus Ratzeburg, 1852. Ichn. d. Forstins., v. 3, p. 230.
Type: ***Pteromalus sieboldi*** Ratzeburg. Desig. by Ashmead, 1904.

Revision: Ferrière and Faure, 1925. Ann. des Epiphyt., v. 11, p. 233.

rotundiventris (Girault), n. comb. N. J., Va. Host: *Plagiodera versicolora* (Laich.).

Coelopisthia rotundiventris Girault, 1917 (1916). Insecutor Inscitiae Menstruus 4: 113. ♀.

sieboldi (Ratzeburg). Maine to Va.; Fla., Minn. Hosts: *Chrysomela interrupta* (F.); *C. scripta* (F.); *Plagiodera versicolora* (Laich.).

Pteromalus (Schizonotus) sieboldi Ratzeburg, 1852. Ichn. d. Forstins., v. 3, p. 230. ♀.

Biology: Dowden, 1939. Jour. Agr. Res. 58: 581–592.

Genus PSILOCERA Walker

Psilocera Walker, 1833. Ent. Mag. 1: 371, 373.
Type: ***Psilocera obscura*** Walker. Monob.
Metopon Walker, 1834. Ent. Mag. 2: 302.
Type: (***Metopon atrum*** Walker)=***Psilocera obscura*** Walker. Monob.
Eupsilocera Westwood, 1839. Introduct. Mod. Class. Insects 2, Synopsis, p. 69. N. name.
Metopum Agassiz, 1846. Nomencl. Zool., p. 670. Emend.
Dichalysis Foerster, 1856. Hym. Stud., v. 2, pp. 52, 56. N. name.

californica (Ashmead), n. comb. Ga., Kans., Calif.
Metapon (!) ***californicum*** Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 229. ♂ ♀.

deiphon (Walker). Fla.
Metopon deiphon Walker, 1843. Soc. Ent. France Ann. (2) 1: 161. ♀.

rufipes (Ashmead). N. H., D. C., Ga., Fla., Kans., S. Dak. Host: *Chlamisus plicata* (F.).
Metapon (!) ***rufipes*** Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 229. ♂ ♀.

Genus SCYMNOPHAGUS Ashmead

Scymnophagus Ashmead, 1904. Carnegie Mus. Mem. 1: 319, 321.
Type: ***Scymnophagus townsendi*** Ashmead. Monob.

townsendi Ashmead. Ill. or Ind., Calif. Host: *Scymnus guttulatus* Lec.
Scymnophagus townsendi Ashmead, 1904. Carnegie Mus. Mem. 1: 319, 321. ♂ ♀.

Genus XENOCREPIS Foerster

Xenocrepis Foerster, 1856. Hym. Stud., v. 2, p. 64 (no species).
Type: ***Caenocrepis arenicola*** Thomson. Included by Ashmead, 1904.
Caenocrepis Thomson, 1878. Hym. Scand., v. 5, p. 50.
Type: ***Caenocrepis arenicola*** Thomson. Monob.

pura Mayr. Idaho, Wash. Host: *Ceutorhynchus assimilis* (Payk.).
Xenocrepis pura Mayr, 1904. Zool.-Bot. Gesell. Wien, Verh. 54: 584. ♂.

Genus MERAPORUS Walker

Meraporus Walker, 1834. Ent. Mag. 2: 298.
Type: ***Meraporus graminicola*** Walker. Desig. by Westwood, 1840.
Parmicromelus Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 4.
Type: (***Parmicromelus europaeus*** Girault)=***Meraporus graminicola*** Walker. N. syn. Monob.

requisitus Tucker. La. Host: *Sitophilus oryza* (L.).
Meraporus requisitus Tucker, 1910. Canad. Ent. 42: 344. ♂.

Genus NEOPOLYCELIS Hincks

Polycelis Thomson, 1878. Hym. Scand., v. 5, pp. 131, 143. Preocc.
Type: ***Pteromalus consperus*** Walker. Desig. by Ashmead, 1904.
Polyscelis Dalla Torre, 1897. Wien. Ent. Ztg. 16: 87. N. name. Preocc.
Neopolycelis Hincks, 1944. Roy. Ent. Soc., London, Proc. Ser. B: Taxonomy 13: 38. N. name.
Revision: Gahan, 1922. U. S. Natl. Mus. Proc. 61 (24): 10–12.

modesta (Gahan), n. comb. Ont., Pa., Md., Va. Hosts: *Phytophaga destructor* (Say); *Platygaster vernalis* (Myers); *P. zosine* Wlkr.
Polyscelis modestus Gahan, 1922. U. S. Natl. Mus. Proc. 61 (24): 11. ♂ ♀.
Biology: Myers, 1925 (1924). Jour. Agr. Res. 29: 289–295.
Taxonomy: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 67–70.
Morphology: Hill and Pinckney, 1940. U. S. Dept. Agr. Tech. Bul. 715: 9–13.

websteri (Ashmead). Ind. Host: Gall on *Lactuca canadensis*.
Polyscelis Websteri Ashmead, 1894. Cincinnati Soc. Nat. Hist. Jour. 17: 52. ♂ ♀.
Biology: Webster, 1894. Cincinnati Soc. Nat. Hist. Jour. 17: 36.

Genus PSYCHOPHAGUS Mayr

Diglochis Thomson, 1878. Hym. Scand., v. 5, p. 156. Preocc.
Type: ***Pteromalus omnivorus*** Walker. Monob.
Psychophagus Mayr, 1904. Zool.-Bot. Gesell. Wien, Verh. 54: 598. N. name.

omnivorus (Walker). Ont., Que., New England, N. Y., N. J., Wis., Ohio. Hosts: *Vanessa atalanta* (L.); *Samia cecropia* (L.); *Diacrisia virginica* (F.); *Estigmene acraea* (Drury); *Utetheisa bella* (L.); *Achatodes zeae* (Harr.); *Catocala* sp.; *Macronoctua onusta* Grote; *Datana ministra* (Drury); *Ichthyura inclusa* (Hbn.); *Hemerocampa leucostigma* (A. and S.); *Nygmia phaeorrhoea* (Donov.); *Porthetria dispar* L.; *Stilpnotia salicis* (L.); *Malacosoma americanum* (F.); *M. disstria* (Hbn.); *Cnidocampa flavescens* (Wlkr.); *Grapholitha molesta* (Busck); *G. packardi* Zell.; *Tortrix packardiana* Fern.; *Compsilura concinnata* Meig.; *Diprion hercyniae* (Htg.).
Pteromalus omnivorus Walker, 1835. Ent. Mag. 3: 204. ♂ ♀.
Pteromalus Processioneae Ratzeburg, 1844. Ichn. d. Forstins., v. 1, p. 194. ♀.

tortricis (Brues), n. comb. Que., N. Y. Hosts: *Choristoneura fumiferana* (Clem.); *Apechthis ontario* (Cress.); *Itoplectis conquisitor* (Say).
Nasonia tortricis Brues, 1910. Canad. Ent. 42: 259. ♂ ♀.
Biology: Dowden, Buchanan, and Carolin, 1948. Jour. Econ. Ent. 41: 459.
Taxonomy: Gahan, 1932. Ent. Soc. Amer. Ann. 25: 738.

Genus CECIDOSTIBA Thomson

Cecidostiba Thomson, 1878. Hym. Scand., v. 5, pp. 87, 92.
Type: ***Cecidostiba rugifrons*** Thomson. Desig. by Ashmead, 1904.
Revision: Crawford, 1912. U. S. Natl. Mus. Proc. 43: 169.

acuta (Provancher). Que., N. B., W. Va., Wash. Hosts: *Dendroctonus monticolae* Hopk.; *Polygraphus rufipennis* (Kby.).
Dinotus acutus Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 201. ♀.
Cecidostiba ashmeadi Crawford, 1912. U. S. Natl. Mus. Proc. 43: 170. ♀.

burkei Crawford. Calif., Wash. Host: *Dendroctonus brevicornis* Lec.
Cecidostiba burkei Crawford, 1912. U. S. Natl. Mus. Proc. 43: 170. ♀.

dendroctoni Ashmead. W. Va., Mont., Idaho, Wash. Hosts: *Cylindrocopturus furnissi* Buch.; *Dendroctonus frontalis* Zimm.; *D. monticolae* Hopk.; *D. pseudotsugae* Hopk.; *Ips grandicollis* (Eichh.); *Polygraphus rufipennis* (Kby.).
Cecidostiba dendroctoni Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 337. ♀.

polygraphi Ashmead. Va. Host: *Polygraphus rufipennis* (Kby.).
Cecidostiba polygraphi Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 338. ♂ ♀.

thomsoni Crawford. Mont., Calif. Hosts: *Pissodes* sp.; *Scolytus ventralis* Lec.
Cecidostiba thomsoni Crawford, 1912. U. S. Natl. Mus. Proc. 43: 171. ♂ ♀.

Genus CATOLACCUS Thomson

Catolaccus Thomson, 1878. Hym. Scand., v. 5, pp. 146, 152.
Type: (***Catolaccus cavigena*** Thomson)=***Pteromalus ater*** Ratzeburg. Monob.
Revision: Crawford, 1908. Ent. Soc. Wash. Proc. 9: 160.

aeneoviridis (Girault). Mass. to Fla., Tex., Utah and Calif., north to Wis. Hosts: *Celama sorghiella* (Riley); *Laphygma frugiperda* (A. and S.); *Oidaematophorus paleaceus* (Zell.); *Ancylis comptana* (Froel.); *A. comptana fragariae* (W. and R.); *Rhyacionia frustrana* (Comst.); *Acleris minuta* (Rob.);

Archips rosaceana (Harr.); *Dichomeris marginella* (F.); ?*Keiferia lycopersicella* (Busck); *Coleophora malivorella* Riley; *C. pruniella* Clem.; *Callisto geminatella* (Pack.); *Bedellia somnulentella* (Zell.); *Bucculatrix thurberiella* Busck; *Apanteles aristoteliae* Vier.; *A. congregatus* (Say); *A. marginiventris* (Cress.); *Hormius basalis* (Prov.); *Meteorus acronyctae* Mues.; *M.* sp.; *Rogas laphygmae* Vier.; *Bathyplectes curculionis* (Thoms.); *Campoletis argentifrons* (Cress.); *Casinaria limenitidis* (How.); *Hyposoter pilosulus* (Prov.).

Arthrolytus aeneoviridis Girault, 1911. Canad. Ent. 43: 351. ♂ ♀.

Dibrachys meteori Gahan, 1913. U. S. Natl. Mus. Proc. 46: 436. ♂ ♀

Biology: Vickery, 1929. U. S. Dept. Agr. Tech. Bul. 138: 21, 32–35, 38, 53–54.

Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 212.

fragariae Rohwer. Tenn., Ga. Hosts: *Anthonomus signatus* Say; *Apion decoloratum* Smith.

Catolaccus fragariae Rohwer, 1934. Ent. Soc. Wash. Proc. 36: 44. ♂ ♀.

hunteri Crawford. N. C., S. C., Miss., La., Tex., Ark. Hosts: *Acanthoscelides compressicornis* (Schaef.); *Anthonomus aeneolus* Dietz; *A. albopilosus* Dietz; *A. eugenii* Cano; *A. grandis* Boh.; *A. heterothecae* Pierce; *A. nebulosus* Lec.; *A. signatus* Say; *A. squamosus* Lec.; *Gerstaeckeria nobilis* (Lec.); *Smicraulax tuberculatus* Pierce; *Tachypterellus quadrigibbus* (Say); *Zygobaris xanthoxyli* Pierce.

Catolaccus hunteri Crawford, 1908 (1907). Ent. Soc. Wash. Proc. 9: 160. ♂ ♀.

Biology: Pierce, Cushman, and Hood, 1912. U. S. Dept. Agr. Bur. Ent. Bul. 100: 42, 51, 54–66.

kansensis (Girault). Kans. Hosts: ?Chrysopid; ?*Psorosina hammondi* (Riley); tephritid seed maggot from ironweed.

Habrocytus kansensis Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 3. ♀.

Genus ZATROPIS Crawford

Zatropis Crawford, 1908. Ent. Soc. Wash. Proc. 9: 159.
Type: ***Zatropis catalpae*** Crawford. Monob.

Revision: Crawford, 1921. Ent. Soc. Wash. Proc. 23: 171–172.

bruchivorus (Ashmead). Iowa, Ill., Kans. Host: *Acanthoscelides horni* (Pic).

Meraporus bruchivorus Ashmead, 1893. Ohio Agr. Expt. Sta. Tech. Ser. Bul. 1: 161. ♂ ♀.

catalpae Crawford. Ohio. Hosts: *Contarinia johnsoni* Sling.; *Itonida catalpae* (Comst.).

Zatropis catalpae Crawford, 1908 (1907). Ent. Soc. Wash. Proc. 9: 159. ♂ ♀.

Biology: Quaintance and Shear, 1921. U. S. Dept. Agr. Farmers' Bul. 1220: 11.

coeliodis (Ashmead). Conn., N. J., Va., Ga. Hosts: *Acanthoscelis acephalus* (Say); *Chalcodermus inaequicollis* Horn.

Catolaccus coeliodis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 226. ♂ ♀.

incertus (Ashmead). N. Y. to Ga., N. Mex. and Colo. Hosts: *Acanthoscelides horni* (Pic); ?*A. longistilus* (Horn); *Bruchus brachialis* Fahr.; *Anthonomus aeneolus* Dietz; *A. albopilosus* Dietz; *A. aphanostephi* Pierce; *A. disjunctus* Lec.; *A. eugenii* Cano, *A. fulvus* Lec.; *A. grandis* Boh.; *A. nigrinus* Boh.; *A. signatus* Say; *Apion crassum* Fall; *A. decoloratum* Smith; *A. griseum* Smith; *A. nigrum* Smith; *Auleutes tenuipes* Lec.; *Baris cuneipennis* Casey; *Ceutorhynchus* sp.; *Chalcodermus aeneus* Boh.; *C. inaequicollis* Horn; *Desmoris fulvus* (Lec.); *Rhynchaenus pallicornis* (Say); *Sitophilus oryza* (L.); *Smicraulax tuberculatus* Pierce; *Tachypterellus consors cerasi* List; *T. quadrigibbus* (Say); *Zygobaris xanthoxyli* Pierce.

Catolaccus incertus Ashmead, 1893. *In* Chittenden, U. S. Dept. Agr. Insect Life 5: 186. ♂ ♀.

Biology: Pierce, Cushman, and Hood, 1912. U. S. Dept. Agr. Bur. Ent. Bul. 100: 42, 51–67, 91–92.

Morphology: Snodgrass, 1910. U. S. Natl. Mus. Proc. 39: 65.

nigroaeneus (Ashmead). Conn., Va., Kans. Hosts: ?*Auleutes tenuipes* (Lec.); dipterous gall on box elder.

Catolaccus nigroaeneus Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 338. ♂ ♀.

Biology: Brandhorst, 1943. Kans. Acad. Sci. Trans. 46: 169.

perdubius (Girault). Minn. Host: *Anthonomus signatus* Say.
Catolaccus perdubius Girault, 1916. Canad. Ent. 48: 114. ♂ ♀.

tortricidis Crawford. Pa., Calif. Hosts: *Etiella zinckenella* (Treit.); *Polychrosis viteana* (Clem.).
Zatropis tortricidis Crawford, 1921. Ent. Soc. Wash. Proc. 23: 172. ♂ ♀.

Genus CAENACIS Foerster

Caenacis Foerster, 1856. Hym. Stud., v. 2, p. 64. No species.
Type: ***Caenacis grandiclava*** Thomson. Desig. by Ashmead, 1904.

asinus Girault. Calif.
Caenacis asinus Girault, 1917. New Chalcid Flies, p. 3. ♀.

Genus PSEUDOCATOLACCUS Masi

Pseudocatolaccus Masi, 1908. Lab. Zool. Gen. e. Agr. Portici Bol. 3: 138.
Type: ***Pseudocatolaccus asphondyliae*** Masi. Monob.

americanus Gahan. Ariz. Host: *Asphondylia websteri* Felt.
Pseudocatolaccus americanus Gahan, 1919. Ent. Soc. Amer. Ann. 12: 164. ♂ ♀.

Genus MUSCIDIFURAX Girault and Sanders

Muscidifurax Girault and Sanders, 1910. Psyche 17: 146.
Type: ***Muscidifurax raptor*** Girault and Sanders. Monob.

raptor Girault and Sanders. Ill., Tex. Hosts: *Callitroga macellaria* (F.); *Musca domestica* L.; *Phormia regina* (Meig.).
Muscidifurax raptor Girault and Sanders, 1910. Psyche 17: 145. ♂ ♀.
Biology: Crandall, 1939. Ent. Soc. Amer. Ann. 32: 652.—DeBach and Smith, 1941. Jour. Econ. Ent. 34: 741–745.—DeBach, 1943. Pan-Pacific Ent. 19: 112–118.

Genus NASONIA Ashmead

Nasonia Ashmead, 1904. Carnegie Mus. Mem. 1: 317.
Type: ***Nasonia brevicornis*** Ashmead. Monob.
Mormoniella Ashmead, 1904. Carnegie Mus. Mem. 1: 316, 317.
Type: (***Mormoniella brevicornis*** Ashmead)=***Nasonia brevicornis*** Ashmead. Monob.
Revision: Brues, 1910. Canad. Ent. 42: 260.

The first reviser of this genus (Brues, 1910) selected the name *Nasonia*, although *Mormoniella* has page priority. Brues' selection is valid according to article 28 of the Zoological Code.

peratripes Girault. N. C.
Nasonia peratripes Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 1. ♀.

vitripennis (Walker). Cosmopolitan. Hosts: *Piophila casei* (L.); *Fannia femoralis* (Stein); *Musca domestica* L.; *M.* sp.; *Ophyra aenescens* (Wd.); *O. leucostoma* (Wd.); *Synthesiomyia nudiseta* V. d. W.; *Apaulina avium* (Shan. and Dobr.); *A. metallica* (Tns.); *A. sialia* (Shan. and Dobr.); *Calliphora* spp.; *Callitroga macellaria*(F.); *Phaenicia caesar* (L.); *P. eximia* (Wd.); *P. mexicana* (Macq.); *P. sericata* (Mg.); *Phormia regina* (Meig.); *Sarcophaga* spp.; *Hypoderma* sp.
Pteromalus vitripennis Walker, 1836. Ent. Mag. 3: 492. ♀.
Pteromalus abnormis Boheman, 1858. Öfvers. Svenska Vetensk. Akad. Forh. 15: 58. ♂ ♀.
Mormoniella brevicornis Ashmead, 1904. Carnegie Mus. Mem. 1: 315, 382. ♀.
Nasonia brevicornis Ashmead, 1904. Carnegie Mus. Mem. 1: 317. ♀.

Biology: Girault and Sanders, 1910. Psyche 17: 9–28.—Tiegs, 1922. Roy. Soc. So. Austral. Trans. and Proc. 46: 319–527.—Roberts, 1933. Ecology 14: 307.—Roberts, 1935. Jour. Agr. Res. 50: 481, 491–492.—Jacobi, 1939. Arch. Néerland. de Zool. 3: 197–282.—DeBach and Smith, 1941. Ecology, v. 22, pp. 365–368.—Van der Merwe, 1943. Ent. Soc. So. Africa Jour. 6: 48–64.—Moursi, 1946. Soc. Fouad 1er Ent. [Soc. Roy. Ent. d'Egypte] Bul. 30: 39–59.

Taxonomy: Gahan, 1927. U. S. Natl. Mus. Proc. 71 (4): 5.—Gahan and Peck, 1946. Wash. Acad. Sci. Jour. 36: 316.

Morphology: Evans, 1933. Bul. Ent. Res. 24: 400–403.

Genus BRUCHOBIUS Ashmead

Bruchobius Ashmead, 1904. Carnegie Mus. Mem. 1: 314, 315.
Type: ***Bruchobius laticeps*** Ashmead. Monob.

Sphaerakis Masi, 1924. Mus. Civ. Stor. Nat. Genova Ann. 51: 157.
Type: ***Sphaerakis mayri*** Masi. Monob.

laticeps Ashmead. Cosmopolitan. Hosts: *Acanthoscelides obtectus* (Say); *Bruchus pisorum* (L.); *Callosobruchus maculatus* (F.).
Bruchobius laticeps Ashmead, 1904. Carnegie Mus. Mem. 1: xi, 313. ♀.

Biology: Paddock and Reinhard, 1919. Tex. Agr. Expt. Sta. Bul. 256: 80–81.

Taxonomy: Waterston, 1921. Grain Pests (War) Com. [Gt. Brit.] Rpt. 9: 14–16.

mayri (Masi). N. C. Host: *Bruchus brachialis* Fahr.
Sphaerakis Mayri Masi, 1924. Mus. Civ. Stor. Nat. Genova Ann. 51: 157. ♂ ♀.

Genus PTEROMALUS Swederus

Pteromalus Swederus, 1795. Svenska Vetensk. Akad. Handl. 16: 201.
Type: ***Ichneumon puparum*** Linnaeus. Desig. by Westwood, 1840.

archippi Howard, ?Mich., Vt., N. H., N. J., N. C., La. Hosts: *Papilio ajax* L.; *Danaus plexippus* (L.); *Basilarchia archippus* (Cram.); *B. arthemis astyanax* (F.).
Pteromalus archippi Howard, 1889. *In* Scudder, Butterflies of Eastern U. S. and Canada, pp. 1872, 1891. ♀.

Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 6, 153.

cassotis Walker. Fla.
Pteromalus Cassotis Walker, 1847. Ann. Mag. Nat. Hist. (1) 19: 393. ♀.

coeruleiventris (Ashmead), n. comb. N. Y., Mass., D. C., Kans., Ill. Host: *Hemerocampa leucostigma* (A. and S.).
Sphegigaster coeruleiventris Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VI. ♀.
Pteromalus cuproideus Howard, 1897. U. S. Dept. Agr. Div. Ent. Tech. Ser. 5: 28, 55. ♂ ♀. N. syn.

Biology: Girault, 1908. Psyche 15: 89–90, 94–96.

cratylus Walker. Fla.
Pteromalus Cratylus Walker, 1847. Ann. Mag. Nat. Hist. (1) 19: 392. ♀.

damo Walker. Fla.
Pteromalus Damo Walker, 1847. Ann. Mag. Nat. Hist (1) 19: 395. ♀.

dipsas Walker. Fla.
Pteromalus Dipsas Walker, 1847. Ann. Mag. Nat. Hist. (1) 19: 394. ♀.

doryssus Walker. Fla.
Pteromalus Doryssus Walker, 1847. Ann. Mag. Nat. Hist. (1) 19: 395. ♂ ♀.

dymnus Walker. Fla.
Pteromalus Dymnus Walker, 1847. Ann. Mag. Nat. Hist. (1) 19: 397. ♀.

epicles Walker. Fla.
Pteromalus Epicles Walker, 1847. Ann. Mag. Nat. Hist. (1) 19: 394. ♀.

eryx Walker. Fla.
Pteromalus Eryx Walker, 1847. Ann. Mag. Nat. Hist. (1) 19: 397. ♂.

eurymi Gahan. Tenn., Kans., Utah, Ariz., Calif. Host: *Colias philodice eurytheme* Bdvl.
Pteromalus eurymi Gahan, 1913. U. S. Natl. Mus. Proc. 46: 435. ♂ ♀.
Biology: Wildermuth, 1914. U. S. Dept. Agr. Bul. 124: 21–23.

eurypon Walker. Fla.
Pteromalus Eurypon Walker, 1847. Ann. Mag. Nat. Hist. (1) 19: 398. ♀.

euthymus Walker. Fla.
Pteromalus Euthymus Walker, 1847. Ann. Mag. Nat. Hist. (1) 19: 393. ♂.

fuscipes (Provancher). Canada, N. H., N. Y., ?N. J. Host: *Nymphalis antiopa* (L.).
Semiotellus fuscipes Provancher, 1881. Nat. Canad. 12: 295. ♀.

hemileucae Gahan. N. Mex. Host: *Hemileuca oliviae* Ckll.
Pteromalus hemileucae Gahan, 1917. U. S. Natl. Mus. Proc. 53: 210. ♀.

hermeas Walker. Fla.
Pteromalus Hermeas Walker, 1847. Ann. Mag. Nat. Hist. (1) 19: 394. ♀.

hybreas Walker. Fla.
Pteromalus Hybreas Walker, 1847. Ann. Mag. Nat. Hist. (1) 19: 397. ♀.

lausus Walker. Fla.
Pteromalus Lausus Walker, 1847. Ann. Mag. Nat. Hist. (1) 19: 392 ♀.

oeax Walker. Fla.
Pteromalus Oeax Walker, 1847. Ann. Mag. Nat. Hist. (1) 19: 395. ♀.

orontas Walker. Fla.
Pteromalus Orontas Walker, 1847. Ann. Mag. Nat. Hist. (1) 19: 396. ♀.

puparum (Linnaeus). Throughout Canada and U. S. Hosts: *Papilio ajax* L.; *Colias philodice* (Godt.); *Eurema lisa* (Bdvl. and Lec.); *Pieris protodice* (Bdvl. and Lec.); *P. rapae* (L.); *Agraulis vanillae* (L.); *Basilarchia archippus* (Cram.); *Nymphalis antiopa* (L.); *Polygonia satyrus* (Edw.); *Vanessa atalanta* (L.); *V. cardui* (L.); *V. caryae* (Hbn.); *Proteides clarus* (Cram.); *Lambdina fiscellaria* (Guen.); *Coleophora salmani* Heinr.; *Thyridopteryx ephemeraeformis* (Haw.); *Bracon gelechiae* Ashm.; *B.* spp.; *Rogas stigmator* (Say); *R.* sp.; *Hyposoter fugitivus* (Say); *Phobocampe clisiocampae* (Weed); *Dibrachys cavus* (Wlkr.); *Sceliphron* sp.
Ichneumon puparum Linnaeus, 1758. Syst. Nat., ed. 10, v. 1, p. 567.
Pteromalus brassicae Packard, 1877. U. S. Geol. and Geog. Survey Rpt. 9: 747. ♀.
Pteromalus pieridis Provancher, 1881. Nat. Canad. 12: 296. ♂ ♀. N. syn.
Biology: Essig, 1931. A Hist. of Ent., pp. 331–333, 390.—Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 7, 153.—Whiting, 1940. Amer. Nat. 74: 377–379.
Taxonomy: Masi, 1908. Lab. Zool. Gen. e Agr. Portici Bol. 3: 119–122.

vanessae Howard. Ont., Maine, N. Y., Mass., Conn., R. I., N. J., W. Va., Ill. Colo. Hosts: *Papilio ajax* L.; *P. cresphontes* Cram.; *P. palamedes* (Drury); *P. thoas* L.; *Ascia monuste* (L.); *Nymphalis antiopa* (L.); *Polygonia comma* (Harr.); *P. interrogationis* (F.); *Malacosoma disstria* Hbn.
Pteromalus puparum var. *vanessae* Howard, 1889. *In* Scudder, Butterflies of Eastern U. S. and Canada, pp. 1872, 1890, 1891. ♀.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 6, 154.

Genus HABROCYTUS Thomson

Habrocytus Thomson, 1878. Hym. Scand., v. 5, pp. 88, 109.
Type: *Pteromalus albipennis* Walker. Desig. by Ashmead, 1904.
Revision: Girault, 1917. Canad. Ent. 49: 178–181.

acutiventris Peck, n. name. Canada.
Pteromalus acutus Provancher, 1881. Nat. Canad. 12: 297. ♀. Preocc.
Pteromalus canadensis Dalla Torre, 1898. Cat. Hym., v. 5, p. 115. N. name. Preocc. by Ashmead, 1887.

americus Girault. U. S.
Habrocytus americus Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 3. ♀.

analis (Ashmead), n. comb. Calif. Host: *Hylaeus varifrons* (Cress.).
Aetroxys analis Ashmead, 1895. *In* Davidson, Psyche 7: 316. ♂ ♀.

anthonomi (Ashmead), n. comb. Conn., N. J., D. C., Tex. Hosts: ?*Lasioderma serricorne* (F.); ?*Anthonomus grandis* Boh.; *A. nigrinus* Boh.; *A. signatus* Say.
Catolaccus anthonomi Ashmead, 1893. *In* Chittenden, U. S. Dept. Agr. Insect Life 5: 185. ♂ ♀.

arkansensis Girault. Ark.
Habrocytus arkansensis Girault, 1917. Canad. Ent. 49: 180, 182. ♂ ♀.

aulacis Girault. Ohio. Hosts: ?*Aulacidea* gall; stem of *Lactuca canadensis*.
Habrocytus aulacis Girault, 1917. Canad. Ent. 49: 180, 181. ♀.

bedeguaris (Thomson). Ont., Colo., B. C. Host: *Diplolepis rosae* (L.).
Etroxys (*Habrocytus*) *Bedeguaris* Thomson, 1878. Hym. Scand., v. 5, p. 123. ♂ ♀.
Taxonomy: Callan, 1944. Roy. Ent. Soc. London, Proc. Ser. B. Taxonomy 13: 90.

borrowi Girault. Conn., Colo.
Habrocytus borrowi Girault, 1917. Canad. Ent. 49: 178, 179, 182. ♀.

britannicus Girault, emend. B. C.
Habrocytus brittanicus (!) Girault, 1926. Insecutor Inscitiae Menstruus 14: 132. ♀.

canadensis (Ashmead), n. comb. Ont., N. H., N. J. Host: Gall of *Xanthoteras forticorne* (O. S.).
Megastigma (!) *canadensis* Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 186. ♂.

capreae (Linnaeus). Europe; ?Alaska.
Cynips Capreae Linnaeus, 1761. Fauna Suecica, Ed. 2, p. 388.

cerealellae (Ashmead). Cosmopolitan. Host: *Sitotroga cerealella* (Oliv.).
Catolaccus cerealellae Ashmead, 1902. Psyche 9: 345. ♂ ♀.
Biology: Noble, 1932. Calif. Univ. Ent. Pubs. 5: 311–354.—Fulton, 1933. Ent. Soc. Amer. Ann. 26: 536.
Taxonomy: Crawford, 1908 (1907). Ent. Soc. Wash. Proc. 9: 160.

coloradensis (Ashmead), n. comb. Colo.
Rhopalicus coloradensis Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 27, 45. ♀.

franciscanus Girault. Calif.
Habrocytus franciscanus Girault, 1917. Canad. Ent. 49: 180, 181. ♀.

giraulti Peck, n. name. Ont.
Habrocytus canadensis Girault, 1917. Canad. Ent. 49: 179, 181, 182. ♀. Preocc. by Ashmead, 1887.

languriae Ashmead. Conn., N. J., Va., La., Ariz. Hosts: *Languria angustata* (Beauv.); *L. mozardi* Latr.; *Dirabius rectirostris* (Lec.); *Epiblema strenuana* (Wlkr.); larva ex *Ambrosia artemisiaefolia* stem.
Habrocytus languriae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 220. ♂ ♀.
Biology: Wildermuth and Gates, 1920. U. S. Dept. Agr. Bul. 889: 19.
Taxonomy: Gahan, 1919. U. S. Natl. Mus. Proc. 55: 127.

lividus Gahan. Colo. Host: *Tachypterellus consors cerasi* List.
Habrocytus lividus Gahan, 1931. Wash. Acad. Sci. Jour. 21: 37. ♂ ♀.
Biology: List, 1932. Colo. Agr. Expt. Sta. Bul. 385: 63.

medicaginis Gahan. Conn., Man., Minn., S. Dak., Kans., N. Mex., Ariz., Utah, Nev., Calif., Idaho, Oreg. Host: *Bruchophagus gibbus* (Boh.).
Habrocytus medicaginis Gahan, 1914. U. S. Natl. Mus. Proc. 48: 163. ♀.
Biology: Urbahns, 1916. Jour. Agr. Res. 7: 147–153.—Urbahns, 1920. U. S. Dept. Agr. Bul. 812: 18.—Sorenson, 1934. Utah Agr. Expt. Sta. Bul. 250: 50 (*bruchophagi*).

melanicrus (Provancher), n. comb. Canada.
Semiotellus melanicrus Provancher, 1881. Nat. Canad. 12: 294. ♂ ♀.

obscuripes Ashmead. Minn., Colo. Hosts: *Anthonomus signatus* Say: *Diplolepis* spp.; various rose galls.
Habrocytus obscuripes Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 26, 45. ♀.
Taxonomy: Girault, 1917. Canad. Ent. 49: 182.

onerati (Fitch). N. Y., N. J. Hosts: ?*Disholcaspis quercus-globulus* (Fitch); ?*Synergus oneratus* Harr.
Pteromalus onerati Fitch, 1859. N. Y. State Agr. Soc. Trans. 18: 812.

phycidis Ashmead. Ont., Que., New England, N. Y., Pa., Del., Wis., B. C. Hosts: *Acrobasis rubrifasciella* (Pack.); *Dioryctria reniculella* (Grote); *Choristoneura fumiferana* (Clem.); *Tortrix packardiana* Kearf.; *Coleophora laricella* (Hbn.); *C. malivorella* Riley; *C. pruniella* Clem.; *Apanteles melanoscelus* (Ratz.); *Macrocentrus cerasivoranae* Vier.; *Meteorus versicolor* (Wesm.); *Hyposoter fugitivus* (Say).
Habrocytus phycidis Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 157. ♀.
Habrocytus dux Girault, 1917. Canad. Ent. 49: 181, 182. ♀.
Biology: Beacher, 1947. Ent. Soc. Amer. Ann. 40: 532–544.
Taxonomy: Gahan, 1930. U. S. Natl. Mus. Proc. 77 (8): 8.

piercei Crawford. N. Y., Conn., W. Va., La., Tex., Colo. Hosts: *Acanthoscelides bisignatus* (Horn); *A. compressicornis* (Schaef.); *Anthonomus grandis* Boh.; *A. nebulosus* Lec.; *Tachypterellus consors cerasi* List; *T. quadrigibbus* (Say); *Coleophora malivorella* Riley; larva ex fruit of *Rhus*.
Habrocytus piercei Crawford, 1911. U. S. Natl. Mus. Proc. 40: 443. ♀.
Biology: List, 1932. Colo. Agr. Expt. Sta. Bul. 385: 59–61.—Hammer, 1936. N. Y. State Agr. Expt. Sta. Tech. Bul. 240: 45.

purpureiventris (Ashmead). Kans. Host: Tephritid seed maggot from ironweed.
Syntasis (!) ***purpureiventris*** Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VI. ♂ ♀.

quinquefasciatus Girault. "East. U. S."
Habrocytus quinquefasciatus Girault, 1916. Ent. Soc. Amer. Ann. 9: 298. ♂ ♀.
Taxonomy: Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 5.

rhodobaeni Ashmead. Va., Kans. Host: *Rhodobaenus tredecimpunctatus* (Ill.).
Habrocytus rhodobaeni Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 220. ♀.

rosae Girault. N. Y., Conn., Colo., B. C. Hosts: Galls of *Diplolepis fusiformans* (Ashm.); *D. ignota* (O. S.).
Habrocytus rhodobaeini var. ***rosae*** Girault, 1917. Canad. Ent. 49: 180, 181. ♀.

simillimus Gahan. Ariz. Host: *Agromyza gibsoni* Mall.
Habrocytus simillimus Gahan, 1919. U. S. Natl. Mus. Proc. 55: 127. ♂ ♀.

thyridopterigis Howard. Maine, N. H., Conn., Va., N. C., Mo., Ill., Wisc. Hosts: *Hemerocampa leucostigma* (A. and S.); *Rhyacionia buoliana* (Schiff.); *R. frustrana* (Comst.); *Coleophora malivorella* Riley; *C. pruniella* Clem.; *C. salmani* Heinr.; *Thyridopteryx ephemeraeformis* (Haw.); *Xyela* sp. on loblolly pine; *Campoplex frustranae* Cush.; *Hyposoter fugitivus* (Say); *Itoplectis conquisitor* (Say); *Phobetes thyridopteryx* Riley; *Spilochalcis maria* (Riley).
Habrocytus thyridopterigis Howard, 1897. U. S. Dept. Agr. Div. Ent. Tech. Ser. 5: 34. ♀.
Biology: Cushman, 1927. Jour. Agr. Res. 34: 617.—Doner, 1936. Ent. Soc. Amer. Ann. 29: 230, 234.

timaea (Walker), n. comb. Fla.
Pteromalus Timaea Walker, 1847. Ann. Mag. Nat. Hist. (1) 19: 396. ♀.

Genus ANISOPTEROMALUS Ruschka

Anisopteromalus Ruschka, 1912. Zool.-Bot. Gesell. Wien, Verh. 42: 243.
Type: (***Anisopteromalus mollis*** Ruschka)=***Pteromalus calandrae*** Howard. Monob.
Aplastomorpha Crawford, 1913. U. S. Natl. Mus. Proc. 45: 252. N. syn.
Type: (***Aplastomorpha pratti*** Crawford)=***Pteromalus calandrae*** Howard. Monob.

calandrae (Howard), n. comb. Cosmopolitan. Hosts: *Lasioderma serricorne* (F.); *Stegobium paniceum* (L.); *Callosobruchus maculatus* (F.); *Caulophilus latinasus* (Say); *Sitophilus granarius* (L.); *S. oryza* (L.); *Ephestia elutella* (Hbn.).

Pteromalus calandrae Howard, 1881. U. S. Dept. Agr. Ann. Rpt. for 1880, p. 273. ♂.

Meraporus Vandinei Tucker, 1910. Canad. Ent. 42: 342. ♂ ♀.

Aplastomorpha pratti Crawford, 1913. U. S. Natl. Mus. Proc. 45: 252. ♂ ♀.

Biology: Cotton, 1923. Jour. Agr. Res. 23: 549–556.—Back and Cotton, 1938. U. S. Dept. Agr. Farmers' Bul. 1260 (rev.): 41–42.—Reed and Vinzant, 1942. U. S. Dept. Agr. Cir. 635: 12.

Taxonomy: Waterston, 1921. Grain Pests (War) Com. [Gt. Brit.] Rpt. 9, pp. 14, 17. —Gahan, 1923. Ent. Soc. Wash. Proc. 25: 188.

Genus TRIMEROMICRUS Gahan

Trimeromicrus Gahan, 1914. U. S. Natl. Mus. Proc. 48: 161.
Type: ***Trimeromicrus maculatus*** Gahan. Monob.

maculatus Gahan. Ill., S. Dak., Kans., N. Mex., Ariz., Calif. Hosts: *Desmoris fulvus* (Lec.); *Asphondylia websteri* Felt; *Bruchophagus gibbus* (Boh.).

Trimeromicrus maculatus Gahan, 1914. U. S. Natl. Mus. Proc. 48: 162. ♂ ♀.

Biology: Gahan, 1919. Ent. Soc. Amer. Ann. 12: 165.—Urbahns, 1919. Jour. Agr. Res. 16: 172–173.—Urbahns, 1920. U. S. Dept. Agr. Bul. 812: 18.

Genus SYSTELLOGASTER Gahan

Systellogaster Gahan, 1917. U. S. Natl. Mus. Proc. 53: 209.
Type: ***Systellogaster ovivora*** Gahan. Monob.

ovivora Gahan. Md., Ill. Host: *Blatta orientalis* L.

Systellogaster ovivora Gahan, 1917. U. S. Natl. Mus. Proc. 53: 209. ♂ ♀.

Genus PARADIBRACHYS Girault

Paradibrachys Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 1.
Type: ***Paradibrachys guizoti*** Girault. Monob.

guizoti Girault. Calif.

Paradibrachys guizoti Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 1. ♀.

Genus ENDOMYCHOBIUS Ashmead

Endomychobius Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 227.
Type: ***Endomychobius flavipes*** Ashmead. Monob.

flavipes Ashmead. D. C. Host: *Endomychus biguttatus* Say.

Endomychobius flavipes Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 227. ♂ ♀.

Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 212.

Genus HYPOPTEROMALUS Ashmead

Hypopteromalus Ashmead, 1900. *In* Smith, Ins. of N. J., sup., p. 559.
Type: ***Pteromalus tabacum*** Fitch. Monob.

inimicus Muesebeck. Ont., New England, W. Va., Wis. Hosts: *Coleophora malivorella* Riley; *C. pruniella* Clem.; *Epinotia nanana* (Treit.); *Exartema punctanum* Wlsm.; *Apanteles lacteicolor* Vier.; *A. melanoscelus* (Ratz.).

Hypopteromalus inimicus Muesebeck, 1927. Jour. Agr. Res. 34: 332. ♂ ♀.

Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 28.—Proper, 1934. Jour. Agr. Res. 48: 361.—Doner, 1936. Ent. Soc. Amer. Ann. 29: 226.

percussor Girault. Colo., Calif., Wash. Hosts: *Zotheca tranquilla* (Grote); *Apanteles smerinthi* Riley; *Meteorus acronyctae* Mues.; *Hyposoter pilosulus* (Prov.).

Hypopteromalus percussor Girault, 1917. Brooklyn Ent. Soc. Bul. 12: 118. ♀.

Hypopteromalus percursor Girault. Essig, 1926. Ins. of West. No. Amer., p. 823. Emend.

tabacum (Fitch). Que., New England, N. J., Ohio, W. Va., N. C., Fla., Ill., Iowa, Kans. Hosts: *Ampeloeca myron* (Cram.); *Ceratomia catalpae* (Bdvl.); *Protoparce* sp.; *P. sexta* (Johan.); *Hyphantria cunea* (Drury); *Coleophora malivorella* Riley; larvaevorid; *Pikonema alaskensis* (Roh.); *Apanteles congregatus* (Say); *A. melanoscelus* (Ratz.); *Microplitis ceratomiae* Riley.

Pteromalus Tabacum Fitch, 1864. N. Y. State Agr. Soc. Trans. 23: 792. ♀.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 12, 28.—Fulton, 1940. Ent. Soc. Amer. Ann. 32: 231–244.
Taxonomy: Gahan, 1921 (1920). Ent. Soc. Wash. Proc. 22: 241.

Tribe METASTENINI

Genus HEMITRICHUS Thomson

Hemitrichus Thomson, 1878. Hym. Scand., v. 5, pp. 50, 54.
Type: *Hemitrichus rufipes* Thomson. Monob.
Uriella Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 221.
Type: *Uriella rufipes* Ashmead. Monob.

rufipes Thomson. Pa., D. C., Ohio, Ind., Ill., Mich. Hosts: Beetle feeding in rat dung; ?*Pyrausta futilalis* (Led).
Dimachus (*Hemitrichus*) *rufipes* Thomson, 1878. Hym. Scand., v. 5, p. 54. ♀.
Uriella rufipes Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 222. ♂ ♀.
Taxonomy: Girault, 1916. Canad. Ent. 48: 408.

Genus NORBANUS Walker

Norbanus Walker, 1843. Soc. Ent. France Ann. (2) 1: 159.
Type: *Norbanus dysaules* Walker. Desig. by Ashmead, 1904.
Arthrolysis Foerster, 1856. Hym. Stud., v. 2, p. 52. No species. N. syn.
Type: *Pteromalus scabriculus* Nees. Desig. by Ashmead, 1904.
Picroscytus Thomson, 1878. Hym. Scand., v. 5, p. 50, 58. N. syn.
Type: *Pteromalus scabriculus* Nees. Monob.
Stylophorella Ashmead, 1904. Carnegie Mus. Mem. 1: 275. N. syn.
Type: *Stylophorella perplexa* Ashmead. Monob.

dysaules Walker. Fla.
Norbanus dysaules Walker, 1843. Soc. Ent. France Ann (2) 1: 158. ♂.

perplexus (Ashmead), n. comb. Tex.
Stylophorella perplexa Ashmead, 1904. Carnegie Mus. Mem. 1: 275, 389. ♀.
Taxonomy: Gahan and Peck, 1946. Wash. Acad. Sci. Jour. 36: 316.

pisius Walker. Fla.
Norbanus pisius Walker, 1843. Soc. Ent. France Ann. (2) 1: 160. ♀.

Genus METASTENUS Walker

Metastenus Walker, 1834. Ent. Mag. 2: 301.
Type: *Metastenus concinnus* Walker. Monob.

acanthocini Ashmead. W. Va., Fla. Host: *Acanthocinus obsoletus* (Oliv.).
Metastenus (?) *acanthocini* Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 198. ♂ ♀.
Biology: Hopkins, 1893. W. Va. Agr. Expt. Sta. Bul. 32: 226.
Taxonomy: Crawford, 1909. Canad. Ent. 41: 99.

callidii (Ashmead), n. comb. N. J., Va. Host: *Callidium antennatum* Newm.
Aetroxys callidii Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 223. ♀.

coeruleus Ashmead. Kans.
Metastenus coeruleus Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App p. VI. ♀.

facialis (Provancher), n. comb. Ont.
Charitopus facialis Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 203. ♂.

Genus NEOCATOLACCUS Ashmead

Neocatolaccus Ashmead, 1904. Carnegie Mus. Mem. 1: 320, 322.
Type: *Catolaccus tylodermae* Ashmead. Monob.

moneilemae Gahan. Tex. Host: *Moneilema ulkei* Horn.
Neocatolaccus moneilemae Gahan, 1936. U. S. Natl. Mus. Proc. 83: 484. ♂ ♀.

tylodermae (Ashmead). N. Y., N. H., Mass., Conn., N. J., D. C., W. Va., Ohio, Ind., Ill., Kans., Tex. Hosts: *Ampeloglypter sesostris* (Lec.); *Cylindrocopturus longulus* (Lec.); *Lixus musculus* Say; *L. parcus* Lec.; *L. scrobicollis* Boh.; *Trichobaris texana* Lec.; *Tyloderma foveolata* Say; larva ex stem of *Ambrosia artemisiaefolia*.
Catolaccus tylodermae Ashmead, 1893. Ohio Agr. Expt. Sta. Tech. Ser. Bul. 1: 161. ♂ ♀.

Genus EURYDINOTELOIDES Girault

Eurydinoteloides Girault, 1913. Arch. f. Naturgesch. 79A (6): 55.
Type: *Eurydinoteloides americana* Girault. Monob.

albiclava Girault, emend. Md.
Eurydinoteloides albiclavus Girault, 1917. Chalcidoidea Nova Marilandensis III, p. 5. ♀.

Genus MEGATRYDYMUS Girault

Megatrydymus Girault, 1917. New Chalcid Flies, p. la.
Type: *Megatrydymus taciti* Girault. Monob.

taciti Girault. West. U. S. Ex gall.
Megatrydymus taciti Girault, 1917. New Chalcid Flies, p. la. ♂.

Genus ACAENACIS Girault

Acaenacis Girault, 1917. New Chalcid Flies, p. la.
Type: *Semiotellus ficigerae* Ashmead. Monob.

ficigerae (Ashmead). Fla. Host: Gall of *Disholcaspis virens* (Ashm.)
Semiotellus ficigerae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xvii. ♂ ♀.

Tribe CLEONYMINI

Genus TOMICOBIA Ashmead

Tomicobia Ashmead, 1899. Ent. Soc. Wash. Proc. 4: 203 (no species).
Type: *Tomicobia tibialis* Ashmead. Included by Ashmead, 1904.
Ipocoelius Ruschka, 1924. Ent. Tidskr. 45: 6.
Type: *Ipocoelius seitneri* Ruschka. Orig. desig.

tibialis Ashmead. W. Va., N. C., N. Dak., Idaho, Calif. Hosts: *Ips calligraphus* (Germ.); *I. confusus* (Lec.); *I. grandicollis* (Eichh.); *I. oregonis* (Eichh.); *I. pini* (Say); *Orthotomicus caelatus* (Eichh.); ?*Pityophthorus puberulus* Lec.; ?*P. pulchellus* (Eichh.).
Tomicobia tibialis Ashmead, 1904. Carnegie Mus. Mem. 1: 283. ♀.
Taxonomy: Gahan, 1938. Ent. Soc. Wash. Proc. 40: 221–222.

Genus HEYDENIA Foerster

Heydenia Foerster, 1856. Hym. Stud., v. 2, pp. 46, 48, 49.
Type: *Heydenia pretiosa* Foerster. Monob.

unica Cook and Davis. Mont., Mich., W. Va., Va., N. C. Hosts: *Dendroctonus frontalis* Zimm.; ?*Ips avulsus* (Eichh.); ?*I. latidens* (Lec.); ?*Dendroctonus obesus* (Mann.); ?*Phloeosinus dentatus* (Say); ?*P. taxodii* Blackm.; ?*Pityophthorus burkei* Blackm.; ?*P. knechteli* Swaine; ?*Polygraphus rufipennis* (Kby.); *Scolytus rugulosus* (Ratz.); ?*Pissodes strobi* (Peck).
Heydenia unica Cook and Davis, 1891. Mich. Agr. Expt. Sta. Bul. 73: 15. ♂ ♀.

Genus EPISTENIA Westwood

Epistenia Westwood, 1832. *In* Griffith, Cuvier's Animal Kingdom 15 (Insecta 2), p. 432.
Type: ***Epistenia coeruleata*** Westwood. Monob.
Dasyglenes Ashmead, 1888. Canad. Ent. 20: 173–174.
Type: ***Dasyglenes osmiae*** Ashmead. Monob.

coeruleata Westwood. Ga.
Epistenia coeruleata Westwood, 1832. *In* Griffith, Cuvier's Animal Kingdom 15 (Insecta 2), p. 432.

odyneri Ashmead. Calif. Host: *Leptochilus rufobasilaris* (Ashm.).
Epistenia odyneri Ashmead, 1896. *In* Davidson, Psyche 7: 336. ♀.

osmiae (Ashmead). N. J., ?Fla. Host: *Osmia* sp. in *Catalpa* twigs.
Dasyglenes osmiae Ashmead, 1888. Canad. Ent. 20: 174. ♀.

polita (Say), n. comb. Va.
Spalangius (!) ***politus*** Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 79. ♀.

regalis Cockerell. Colo. Host: Eumenid.
Epistenia regalis Cockerell, 1934. Psyche 39: 228. ♀.

Genus CLEONYMUS Latreille

Cleonymus Latreille, 1809. Gen. Crust. Ins., v. 4, p. 29.
Type: ***Diplolepis depressa*** Fabricius. Desig. by Latreille, 1810.

californicus Girault. Calif.
Cleonymus californicus Girault, 1917. Jour. Ent. and Zool. 9: 11. ♀.

nigriclavus Girault. Fla.
Cleonymus nigriclavus Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. III, p. 6. ♀.

Genus PTINOBIUS Ashmead

Ptinobius Ashmead, 1896. Ent. Soc. Wash. Proc. 4: 11.
Type: ***Charitopus magnificus*** Ashmead. Monob.
Revision: Rohwer, 1919. Ent. Soc. Wash. Proc. 21: 4–6.

agrili Rohwer. Calif. Host: *Agrilus angelicus* Horn.
Ptinobius agrili Rohwer, 1919. Ent. Soc. Wash. Proc. 21: 5. ♂ ♀.

californicus Crawford. Calif.
Ptinobius californicus Crawford, 1917 (1916). Insecutor Inscitiae Menstruus 4: 142. ♀.

magnificus (Ashmead). N. J., W. Va., Va., Kans., Tex. Hosts: *Agrilus ruficollis* (F.); *Amphicerus bicaudatus* (Say); *Tessaropa tenuipes* (Hald.); *Lixus scrobicollis* Boh.
Charitopus magnificus Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. IV. ♀.
Ptinobius dysphagae Girault, 1915. Ent. News 26: 130. ♂.
Biology: Hopkins, 1891. W. Va. Agr. Expt. Sta. Bul. 15: 84.
Taxonomy: Girault, 1917 (1916). Insecutor Inscitiae Menstruus 4: 142, 144.

texanus Crawford. Tex. Host: *Araecerus fasciculatus* (Deg.).
Ptinobius texanus Crawford, 1917 (1916). Insecutor Inscitiae Menstruus 4: 142. ♂ ♀.

Genus CHEIROPACHUS Westwood

Cheiropachus Westwood, 1828. Zool. Jour. 4: 23.
Type: (***Diplolepis quadrum*** Fabricius)=***Sphex colon*** Linnaeus. Monob.
Cheiropachys Haliday, 1833. Ent. Mag. 1: 268. Emend.
Pachychirus Agassiz, 1846. Nomencl. Zool., Index Univ., p. 777. Emend. Preocc.
Chiropachys Vollenhoven, 1871. Schetsen Hym., v. 3, pl. 10. Emend.
Tropidogastra Ashmead, 1904. Carnegie Mus. Mem. 1: 323.
Type: ***Tropidogastra arizonensis*** Ashmead. Monob.
Revision: Gahan, 1938. Ent. Soc. Wash. Proc. 40: 219–220.

arizonensis (Ashmead). N. C., Tex., N. Mex., Ariz., Calif., Oreg. Host: *Phloeosinus* sp. reared from red cedar, juniper, and *Cercocarpus ledifolius*.
Tropidogastra arizonensis Ashmead, 1904. Carnegie Mus. Mem. 1: 323, 392. ♀.
Dinarmus arizonicus Girault, 1917 (1916). Insecutor Inscitiae Menstruus 4: 109. ♀.

brunneri Crawford. Mont. Host: *Pissodes* sp.
Cheiropachus brunneri Crawford, 1912. U. S. Natl. Mus. Proc. 43: 165. ♂ ♀.

colon (Linnaeus). Ont. and N. H. to Ala.; Calif., Oreg., Wash., B. C. Hosts: *Magdalis aenescens* Lec.; *Phloeosinus canadensis* Swaine; *Scolytus multistriatus* (Marsh.); *S. rugulosus* (Ratz.).
Sphex Colon Linnaeus, 1858. Syst. Nat., ed. 10, p. 571.
Biology: Russo, 1930. R. Lab. Ent. Agr. Portici Bol. 2: 181–195.
Taxonomy: Ferrière, 1948. Schweiz. Ent. Gesell. Mitt. 21: 522–523.

obscuripes Brues. Ont. to N. C. and Ill. Hosts: *Phloeotribus liminaris* (Harr.); *Scolytus rugulosus* (Ratz.).
Cheiropachys obscuripes Brues, 1910. Wis. Nat. Hist. Soc. Bul. 8: 80. ♀.

Family EURYTOMIDAE

Phylogeny: Bugbee, 1936. Ent. Amer. 16: 169–222.

Genus ISOSOMODES Ashmead

Isosomodes Ashmead, 1888. Ent. Amer. 4: 42, 43 (no species).
Type: ***Isosoma gigantea*** Ashmead. Included by Ashmead, 1894.

giganteus (Ashmead). D. C., Va., Fla.
Isosoma gigantea Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 127. ♂.

Genus HARMOLITA Motschulsky

Isosoma Walker, 1832. Ent. Mag. 1: 13, 14. Preocc.
Type: ***Eurytoma longula*** Dalman. Desig. by Westwood, 1840.
Harmolita Motschulsky, 1863. Soc. Imp. Nat. Moscou Bul. 36 (2): 58.
Type: ***Harmolita longicornis*** Motschulsky. Monob.
Xanthosoma Ashmead, 1888. Ent. Amer. 4: 42, 43 (no species). N. syn.
Type: ***Xanthosoma nigricornis*** Ashmead. Included by Ashmead, 1894.
Isosomocharis Ashmead, 1888. Ent. Amer. 4: 42, 43 (no species). N. syn.
Type: ***Isosomocharis sulcata*** Ashmead. Included by Ashmead, 1894.
Harmolyta Dalla Torre, 1898. Cat. Hym., v. 5, p. 154. Emend.
Urios Girault, 1911. N. Y. Ent. Soc. Jour. 19: 175. N. syn.
Type: (***Urios vestali*** Girault)=***Harmolita grande*** form ***minutum*** (Howard).
Isthmosoma Hedicke, 1920. Arch. f. Naturgesch. 86A (11): 165. N. name.
Revisions: Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 433–471.—Gahan, 1922. U. S. Natl. Mus. Proc. 61 (24): 7–8 (generic characters).—Gahan, 1922. Ent. Soc. Wash. Proc. 24: 33–58 (world hosts).—Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 1–25.

The members of this genus are commonly called joint worms. Their larvae are gall-formers, feeding in the stems of grains and grasses.

agropyrocola Phillips and Emery. *Agropyron* spp.
Harmolita agropyrocola Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 458. ♀.

agropyrophila Phillips and Emery. From Atlantic west to Kans. Host: *Agropyron repens*.
Harmolita agropyrophila Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 450. ♂ ♀.
Biology: Phillips, 1920. U. S. Dept. Agr. Bul. 808: 20.

agrostidis (Howard). Calif. Host: *Agrostis* sp.
Isosoma agrostidis Howard, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 2: 12. ♀.

ainsliei Phillips. S. Dak. Host: *Elymus* sp.
Harmolita ainsliei Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 4, 10. ♂ ♀.

albomaculata (Ashmead). N. H. to Tenn. and Mich.; Kans., Nebr., and N. Dak. Host: *Phleum pratense.*
Isosoma albomaculatum Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 329. ♂ ♀.
Biology: Phillips, 1920. U. S. Dept. Agr. Bul. 808: 15–16.—Phillips and Poos, 1921. Jour. Agr. Res. 21: 421.—Phillips and Poos, 1927. Jour. Agr. Res. 34: 475, 483.

atlantica Phillips and Emery. N. Y., Mich., Ind. Host: *Agropyron* sp.
Harmolita atlantica Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 461. ♂ ♀.
Biology: Phillips, 1920. U. S. Dept. Agr. Bul. 808: 19–20.—Phillips and Poos, 1921. Jour. Agr. Res. 21: 409, 416, 421.—Phillips and Poos, 1927. Jour. Agr. Res. 34: 475, 483.

bambusae Phillips. Ga. Host: Bamboo.
Harmolita bambusae Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 20. ♀.

bromi (Howard). Calif. Host: *Bromus ciliatus.*
Isosoma bromi Howard, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 2: 11. ♂ ♀.

bromicola (Howard). Conn., Calif. Host: *Bromus ciliatus.*
Isosoma bromicola Howard, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 2: 17. ♂ ♀.

californica (Howard). Calif. Hosts: ?*Eriocoma hymenoides*; wild grass stems.
Isosoma californicum Howard, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 2: 10. ♂ ♀.

captiva (Lintner). N. Y. Host: ?Wheat.
Isosoma captivum Lintner, 1888. N. Y. State Mus. Nat. Hist. Rpt. 41: 34. ♂ ♀.
Taxonomy: Phillips, 1920. U. S. Dept. Agr. Bul. 808: 16.

cinnae Phillips and Poos. Ohio. Host: *Cinna arundinacea.*
Harmolita cinnae Phillips and Poos, 1922. Kans. Univ. Sci. Bul. 14: 352. ♂ ♀.

comatae Phillips. N. Dak. Host: *Stipa comata.*
Harmolita comatae Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 9. ♀.

dactylicola Phillips and Emery. N. Y. and Mass. to Va. and Mich.; Tenn., Utah. Host: *Dactylis glomerata.*
Harmolita dactylicola Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 446. ♂ ♀.
Biology: Phillips, 1920. U. S. Dept. Agr. Bul. 808: 16.—Phillips and Poos, 1927. Jour. Agr. Res. 34: 475, 483.

dakotae Phillips, emend. N. Dak. Host: *Elymus* sp.
Harmolita dakota Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 14. ♂ ♀.

danthoniae Phillips. Mich. Host: *Danthonia spicata.*
Harmolita danthoniae Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 18. ♀.

elymi (French). N. Y., Mich., Va., Ohio, Ind., Ill., Utah. Hosts: *Elymus canadensis; E. glaucus; E. virginicus.*
Isosoma Elymi French, 1882. Canad. Ent. 14: 10. ♀.
Biology: Phillips, 1920. U. S. Dept. Agr. Bul. 808: 20.—Phillips and Poos, 1927. Jour. Agr. Res. 34: 475.

elymicola Phillips and Emery. N. Y., Va., Ohio, Ind., Ill., Mich., Mo. Hosts: *Elymus* spp.
Harmolita elymicola Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 460. ♂ ♀.

Biology: Phillips, 1920. U. S. Dept. Agr. Bul. 808: 21.—Phillips and Poos, 1921. Jour. Agr. Res. 21: 409, 416, 421.

elymivora Phillips and Emery. Va., Ohio, Ind., Ill., Ark., Kans. Hosts: *Elymus* spp.
Harmolita elymivora Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 464. ♂ ♀.
Biology: Phillips, 1920. U. S. Dept. Agr. Bul. 808: 21.—Phillips and Poos, 1921. Jour. Agr. Res. 21: 421.

elymophaga Phillips and Emery. Calif., Wash. Hosts: *Elymus condensatus; E. triticoides.*
Harmolita elymophaga Phillips, 1927. Ent. Soc. Wash. Proc. 29: 127. ♂ ♀.

elymophila Phillips and Emery. Calif. Hosts: *Elymus* spp.
Harmolita elymophila Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 462. ♂ ♀.

elymophthora Phillips and Emery. Nebr., N. Dak. Hosts: *Elymus* spp.
Harmolita elymophthora Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 465. ♂ ♀.
Biology: Phillips, 1920. U. S. Dept. Agr. Bul. 808: 22–23.

elymoxena Phillips and Emery. Calif. Host: *Elymus glaucus.*
Harmolita elymoxena Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 459. ♂ ♀.

festuceae Phillips and Emery. N. Y., N. J., Pa., Ohio, Va. Hosts: *Festuca elatior; F.* sp.
Harmolita festuceae Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 454. ♂ ♀.
Biology: Phillips, 1920. U. S. Dept. Agr. Bul. 808: 18–19.—Phillips and Poos, 1927. Jour. Agr. Res. 34: 475, 483.

flavicoxa Phillips. N. Mex. Host: *Elymus* sp.
Harmolita flavicoxa Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 13. ♂ ♀.

gahani Phillips. S. Dak. Host: *Elymus* sp.
Harmolita gahani Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 18. ♀.

gillettei Phillips and Emery. Colo.
Harmolita gillettei Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 467. ♀.

grandis form ***grandis*** (Riley). Wherever wheat is grown in No. Amer. The species is commonly known as the wheat strawworm. Host: Wheat.
Isosoma grande Riley, 1884. Brooklyn Ent. Soc. Bul. 7: III, errata. ♀.
Biology: Webster and Reeves, 1909. U. S. Dept. Agr. Bur. Ent. Cir. 106: 1–11.—Gossard, 1911. Ohio Agr. Expt. Sta. Bul. 233: 66.—Doane, 1916. Calif. State Comn. Hort. Monthly Bul. 5: 69–72.—Phillips and Poos, 1921. Jour. Agr. Res. 21: 409, 421.—Knowlton, 1931. Jour. Econ. Ent. 24: 414–416.—Knowlton, 1932. Jour. Econ. Ent. 25: 1169–1170.—Knowlton and Janes, 1933. Utah Agr. Expt. Sta. Bul. 243: 1–8.

grandis form ***minuta*** (Howard). Wherever wheat is grown in No. Amer. This is the vernal, apterous form. Host: Wheat.
Isosoma tritici Riley, 1882. Amer. Nat. 16: 247. ♀. Preocc.
Isosoma grande form ***minutum*** Howard, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser: 2-10. N. name.
Urios vestali Girault, 1911. N. Y. Ent. Soc. Jour. 19: 176. ♂. N. syn.
Biology: Phillips, 1920. U. S. Dept. Agr. Bul. 808: 6–8.—Knowlton and Janes, 1933. Utah Agr. Expt. Sta. Bul. 243: 3.

hageni (Howard). Mass. Host: *Agropyron repens.*
Isosoma hageni Howard, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 2: 12. ♀.

hesperus Phillips and Emery. N. Dak., S. Dak., Nebr., Kans., Utah. Hosts: *Elymus* spp.
Harmolita hesperus Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 457. ♂ ♀.
Biology: Phillips, 1920. U. S. Dept. Agr. Bul. 808: 22–23.

holci Phillips. Oreg. Host: *Holcus* sp.
Harmolita holci Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 19. ♂ ♀.

hordei (Harris). Ont., Que. to N. C. and Ill.; Kans., Colo. Host: Barley.
Eurytoma Hordei Harris, 1830. New England Farmer 9: 2 (including footnote).
Pteromalus? fulvipes Fitch, 1859. N. Y. State Agr. Soc. Jour. 10: 114.
Eurytoma flavipes Fitch, 1862 (1861). N. Y. State Agr. Soc. Trans. 21: 845. ♂ ♀. Preocc.
Biology: Gossard, 1911. Ohio Agr. Expt. Sta. Bul. 233: 70.—Phillips, 1920. U. S. Dept. Agr. Bul. 808: 11–13.

jonesi Phillips. Calif. Host: *Elymus* sp.
Harmolita jonesi Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 15. ♂ ♀.

kingi Phillips. Sask. Host: *Hordeum jubatum.*
Harmolita kingi Phillips, 1927. Ent. Soc. Wash. Proc. 29: 128. ♂ ♀.

koebelei Phillips. Calif.
Harmolita koebelei Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 11. ♀.

lolii Gahan. Calif. Hosts: *Lolium multiflorum; L. temulentum.*
Harmolita lolii Gahan, 1922. U. S. Natl. Mus. Proc. 61 (24): 9. ♂ ♀.

longipetiolata Phillips. N. Dak. Host: *Stipa comata.*
Harmolita longipetiolata Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 16. ♀.

maculata (Howard). N. Y. and Mass. to Va., Ky., Ill., and Mich. Host: *Bromus secalinus.*
Isosoma maculatum Howard, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 2: 15. ♀.
Biology: McConnell, 1918. Jour. Econ. Ent. 11: 170.—Phillips and Poos, 1921. Jour. Agr. Res. 21: 421.—Phillips, 1920. U. S. Dept. Agr. Bul. 808: 19.—Phillips and Poos, 1927. Jour. Agr. Res. 34: 475, 483–484.

minuenda Phillips. N. Dak. Host: *Elymus* sp.
Harmolita minuenda Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 6. ♀.

montana (Ashmead), n. comb. Colo., Mont.
Isosoma montanum Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 329. ♀.

neocaptiva Peck, n. name. N. Y., Ind., Ill. Host: *Poa pratensis.*
Isosoma captivum Howard, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 2: 13. ♂ ♀. Preocc. by Lintner, 1888.
Biology: Phillips, 1920. U. S. Dept. Agr. Bul. 808: 16–17, 23.

nigricornis (Ashmead), n. comb. Fla.
Xanthosoma nigricornis Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 320. ♀.

occidentalis Phillips and Emery. N. Mex. Host: *Agropyron* sp.
Harmolita occidentalis Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 465. ♂ ♀.
Biology: Phillips and Poos, 1921. Jour. Agr. Res. 21: 421.

opuntiae Muesebeck. Ariz. Host: *Hilaria mutica.*
Harmolita opuntiae Muesebeck, 1932. Ent. Soc. Wash. Proc. 34: 110. ♂ ♀.
Biology: Muesebeck, 1933 (1932). Ent. Soc. Wash. Proc. 34: 158.

oregonensis Phillips, emend. Oreg. Host: *Elymus* sp.
Harmolita oregon Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 14. ♀.

ovata Phillips and Emery. Kans. Host: *Elymus* sp.
Harmolita ovata Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 458. ♂ ♀.
Biology: Phillips, 1920. U. S. Dept. Agr. Bul. 808: 22–23.

pacifica Phillips. Calif.
Harmolita pacifica Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 12. ♂ ♀.

panici Phillips and Poos. Va. Host: *Panicum clandestinum.*
Harmolita panici Phillips and Poos, 1922. Kansas Univ. Sci. Bul. 14: 351. ♂ ♀.
Biology: Phillips and Poos, 1921. Jour. Agr. Res. 21: 421.

phalaridis Phillips and Poos. N. Y., S. Dak. Host: *Phalaris arundinacea; P.* sp.
Harmolita phalaridis Phillips and Poos, 1922. Kans. Univ. Sci. Bul. 14: 351. ♂ ♀.

phyllostachitis Gahan. Fla. Host: *Phyllostachys bambusoides.*
Harmolita phyllostachitis Gahan, 1922. Ent. Soc. Wash. Proc. 24: 55. ♀.

poacola Gahan. Conn., Ind. Host: *Poa pratensis.*
Harmolita poae Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 445. ♂ ♀. Preocc.
Harmolita poacola Gahan, 1922. Ent. Soc. Wash. Proc. 24: 46, 52. N. name.
Biology: Phillips, 1920. U. S. Dept. Agr. Bul. 808: 17–18.

poaphila Phillips and Emery, emend. Colo. Hosts: *Poa lucida; P.* sp.
Harmolita poophila Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 463. ♂ ♀.

poosi Phillips. Va.
Harmolita poosi Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 10. ♀.

rufipes Phillips and Emery. Ill., Nebr., Kans., N. Mex., Utah. Host: *Elymus* spp.
Harmolita rufipes Phillips and Emery, 1919. U. S. Natl. Mus. Proc. 55: 453. ♂ ♀.
Biology: Phillips, 1920. U. S. Dept. Agr. Bul. 808: 21–23.

sativi Phillips. Ill. Host: Wheat.
Harmolita sativi Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 7. ♀.

secale (Fitch). N. Y., Pa., Va., Ohio, Ind., Mich., Kans., Nebr., Utah. Host: Rye.
Eurytoma Secale Fitch, 1861. Amer. Agr. 20: 235–236.
Biology: Phillips, 1920. U. S. Dept. Agr. Bul. 808: 13.

stipicola Phillips. N. Dak. Host: *Stipa comata.*
Harmolita stipicola Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 8. ♀.

stipiphaga Phillips. N. Dak. Host: *Stipa comata.*
Harmolita stipiphaga Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 17. ♀.

stipiphila Phillips. N. Dak.
Harmolita stipiphila Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518: 16. ♀.

sulcata (Ashmead), n. comb. Fla.
Isosomocharis sulcata Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 331. ♀.

tibialis (Ashmead), n. comb. S. Dak., Mont., Oreg. Hosts: *Phalaris arundinacea; P.* sp.
Isosomorpha tibialis Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 331. ♂ ♀.
Harmolita phalaricola Phillips and Poos, 1922. Kans. Univ. Sci. Bul. 14: 353. ♀. N. syn.

tritici (Fitch). East. No. Amer., Nebr., Kans., Utah, Calif., Oreg. This species is commonly known as the wheat jointworm. Host: Wheat.
Pteromalus? tritici Fitch, 1859. N. Y. State Agr. Soc. Jour. 10: 115.
Decatoma basilaris Provancher, 1881. Nat. Canad. 12: 290. ♂ ♀.
Isosoma nigrum Cook, 1885. Rural New Yorker 44: 314. ♂ ♀.
Biology: Pettit, 1907. Mich. Agr. Expt. Sta. Bul. 244: 106–109.—Phillips and Poos, 1940. U. S. Dept. Agr. Farmers' Bul. (rev.) 1006: 1–12.—Chamberlain, 1941. U. S. Dept. Agr. Tech. Bul. 784: 1–46.

utahensis Phillips. Utah. Host: ?Wheat.
Harmolita utahensis Phillips, 1936. U. S. Dept. Agr. Tech. Bul. 518:11. ♀.

vaginicola (Doane). Que., Ont. to Va., Ohio and Mich; Utah, Oreg., Wash. Host: Wheat.
Isosoma vaginicola Doane, 1916. Jour. Econ. Ent. 9: 399. ♀.
Biology: Knowlton and Janes, 1933. Utah Agr. Expt. Sta. Bul. 243: 9.

websteri (Howard). Mass., N. Y., Pa., Va., Ohio, Ind., Ill., La., Utah, Calif. Host: Rye.
Isosoma websteri Howard, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 2: 15. ♀.
Isosoma hirtifrons Howard, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 2: 16. ♀.
Isosoma fitchi Howard, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 2: 20. ♂ ♀.

Biology: Phillips and Poos, 1927. Jour. Agr. Res. 34: 483.—Knowlton, 1932. Jour. Econ. Ent. 25: 1171–1172.—Knowlton and Janes, 1933. Utah Agr. Exp. Sta. Bul. 243: 9–10.

Genus AXIMA Walker

Axima Walker, 1862. Ent. Soc. London Trans. (3) 1 (pt. 4): 373.
Type: ***Axima spinifrons*** Walker. Monob.

zabriskiei Howard. N. Y., N. J., Mich., Mo. Hosts: *Ceratina calcarata* Rob.; nest of *C. dupla* Say.
Axima zabriskiei Howard, 1890. U. S. Dept. Agr. Insect Life 2: 365. ♂ ♀.

Genus MACRORILEYA Ashmead

Macrorileya Ashmead, 1900. *In* Smith, N. J. State Bd. Agr. Ann. Rpt. 27 (sup.); 555.
Type: ***Rileya oecanthi*** Ashmead. Monob.

oecanthi (Riley). N. J., Va., N. C., Nebr., Calif. Hosts: *Oecanthus californicus* Sauss.; *O. nigricornis quadripunctatus* Beut.; *O. niveus* (Deg.); *O.* sp.
Rileya oecanthi Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 321. ♂ ♀.
Biology: Smith, 1930. Calif. Univ. Pubs., Ent. 5: 165–172.

Genus RILEYA Ashmead

Rileya Ashmead, 1888. Ent. Amer. 4: 42 (no species).
Type: ***Rileya cecidomyiae*** Ashmead. Included by Ashmead, 1888.
Ashmeadia Howard, 1889. Canad. Ent. 21: 59. N. name.
Tragiicola Brèthes, 1918. Soc. Ent. France Bul., p. 83. N. syn.
Type: ***Tragiicola haumani*** Brèthes. Monob.
Revision: Gahan, 1918. Ent. Soc. Wash. Proc. 20: 136.

americana Girault. Mo. Host: Itonidid gall on *Helenium atumnale.*
Rileya americana Girault, 1916. Canad. Ent. 48: 339. ♀.

cecidomyiae Ashmead. Conn., N. J., N. C., Fla., Ill., Kans. Hosts: *Dasyneura* sp. on *Helianthus;* itonidid gall on *Baccharis halimifolia;* itonidid in *Crataegus* seeds.
Rileya cecidomyiae Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. III. ♂ ♀.

compressiventris Gahan. Tex. Host: Gall of *Asphondylia* sp. on *Mimosa.*
Rileya compressiventris Gahan, 1918. Ent. Soc. Wash. Proc. 20: 143. ♂ ♀.

hegeli Girault. Fla.
Rileya hegeli Girault, 1916. Canad. Ent. 48: 340. ♀.

heterogaster Gahan. Tex. Host: Gall of *Asphondylia* sp. on *Mimosa.*
Rileya heterogaster Gahan, 1918. Ent. Soc. Wash. Proc. 20: 141. ♂ ♀.
Morphology: Bugbee, 1936. Ent. Amer. 16: 179.

mellea Ashmead. Fla. Host:?Itonidid on skunk bush.
Rileya mellea Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 321. ♀.

opuntiae Gahan. Tex. Host: *Asphondylia opuntiae* Felt.
Rileya opuntiae Gahan, 1936. U. S. Natl. Mus. Proc. 83: 482. ♀.

piercei Crawford. Ariz.
Rileya piercei Crawford, 1914. Ent. Soc. Wash. Proc. 16: 29. ♂.

similaris Gahan. Tex. Host: Gall of *Asphondylia* sp. on "*Mimosa* tree" (possibly *Leucaena pulverulenta* or *Mimosa Lindheimeri*).
Rileya similaris Gahan, 1918. Ent. Soc. Wash. Proc. 20: 148. ♂ ♀.

tegularis Gahan. Ariz. Host: *Asphondylia* sp. ex stem galls on *Pluchea borealis* and on *Suaeda* sp.
Rileya tegularis Gahan, 1918. Ent. Soc. Wash. Proc. 20: 147. ♂ ♀.

Genus BEPHRATOIDES Brues

Bephratoides Brues, 1908. Wis. Nat. Hist. Soc. Bul. 6: 158.
Type: ***Bephratoides maculatus*** Brues. Monob.

agrili (Ashmead), n. comb. N. J., Va. Host: *Agrilus otiosus* Say.
Eurytoma agrili Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 325. ♀.

maculatus Brues. Tex.
Bephratoides maculatus Brues, 1909 (1908). Wis. Nat. Hist. Soc. Bul. 6: 158. ♀.

Genus BEPHRATA Cameron

Bephrata Cameron, 1884. Biol. Cent.-Amer. Hym., v. 1, p. 109.
Type: ***Bephrata ruficollis*** Cameron. Monob.
Bephratoides Girault, 1913. Arch. f. Naturgesch. 79A (6): 60. Preocc. N. syn.
Type: ***Bephrata paraguayensis*** Crawford. Monob.
Bephratelloides Girault, 1913. Ent. News 24: 459. N. name. N. syn.

cubensis Ashmead. So. Fla.
Bephrata cubensis Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 321. ♀.

Genus PRODECATOMA Ashmead

Prodecatoma Ashmead, 1904. Carnegie Mus. Mem. 1: 261, 263, 463.
Type: ***Prodecatoma flavescens*** Ashmead. Orig. desig.

cooki (Howard), n. comb. N. Y., Conn., Ohio, Mich., Calif. Seed hosts: *Psedera quinquefolia; Vitis californica;* wild and cultivated grapes.
Decatomidea cooki Howard, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 2: 23. ♂ ♀.
Prodecatoma phytophaga Crosby, 1909. Canad. Ent. 41: 50. ♂ ♀. N. syn.
Biology: Crosby, 1909. N. Y. (Cornell) Agr. Expt. Sta. Bul. 265: 382.
Morphology: Bugbee, 1936. Ent. Amer. 16: 178.

Genus PHYLLOXEROXENUS Ashmead

Phylloxeroxenus Ashmead, 1888. Ent. Amer. 4: 42, 43 (no species).
Type: ***Eurytoma phylloxerae*** Ashmead. Included by Ashmead, 1894.

phylloxerae (Ashmead). Fla. Host: Orange-colored dipterous larva in gall of *Phylloxera caryae-scissa* Riley.
Eurytoma phylloxerae Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. xxx. ♀.

Genus CHRYSEIDA Spinola

Chryseida Spinola, 1840. Rev. Zool. 3: 18.
Type: ***Chryseida superciliosa*** Spinola. Monob.

inopinata Brues. Tex. Host: *Oncideres putator* Thoms.
Chryseida inopinata Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 103. ♀.

Genus EURYTOMA Illiger

Eurytoma Illiger, 1807. Mag. Insektenk, v. 6, 192.—Illiger, 1807 .*In* Rossi, Fauna Etrusca, ed. 2, v. 2, p. 128.
Type: (***Chalcis abrotani*** Panzer) = ***Pteromalus appendigaster*** Swederus. Desig. by Westwood, 1840.
Decatoma Spinola, 1811. Paris Mus. Hist. Nat. Ann. 17: 151.
Type: ***Diplolepis adonidum*** Rossi. Desig. by Ashmead, 1904.
Tetramesa Walker, 1848. List Hym. Brit. Mus., v. 2, pp. 104, 154.
Type: ***Tetramesa iarbas*** Walker. Monob.
Ennetoma Dahlbom, 1857. Öfvers. Svenska Vetensk. Akad. Forh. 14: 292.
Type: (***Chalcis abrotani*** Panzer) = ***Pteromalus appendigaster*** Swederus. Desig. by Gahan and Fagan, 1923.
Eurytomocharis Ashmead, 1888. Ent. Amer. 4: 42, 43 (no species). N. syn.
Type: ***Eurytomocharis minuta*** Ashmead. Included by Ashmead, 1894.
Evoxysoma Ashmead, 1888. Ent. Amer. 4: 42, 43 (no species). N. syn.
Type: ***Systole brachyptera*** Ashmead. Included by Ashmead, 1894.
Enneatoma Dalla Torre, 1898. Cat. Hym., v. 5, p. 332. Emend.
Euoxysoma Dalla Torre, 1898. Cat. Hym., v. 5, p. 345. Emend.
Bephratella Girault, 1913. Arch. f. Naturgesch. 79 (6): 95.
Type: ***Bephratella nympha*** Girault. Orig. desig.

abatos Walker. Fla.
Eurytoma abatos Walker, 1843. Soc. Ent. France Ann. (2) 1: 152. ♀.

abnormicornis Walsh. Fla., Ill., Kans.
Eurytoma abnormicornis Walsh, 1870. Amer. Ent. and Bot. 2: 299. ♀.

abnormis (Ashmead). N. Y., N. C., Tex., Kans. Host: ?*Stephanoderes dissimilis* (Zimm.).
Isosoma abnormis Ashmead, 1896. Amer. Soc. Ent. Trans. 23: 219. ♀.

albipes Ashmead. N. C., Fla., Miss. Host: *Asphondylia globulus* O. S.
Eurytoma albipes Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. xxxi. ♂ ♀.

appendigaster (Swederus). Ont., New England, N. J., Pa. Wis. Hosts: *Blastodacna curvilineella* Chamb.; *Grapholitha molesta* (Busck); *Rhyacionia buoliana* (Schiff.); *Coleophora pruniella* Clem.; *Compsilura concinnata* (Meig.); *Apanteles glomeratus* (L.); *A. lacteicolor* Vier.; *A. melanoscelus* (Ratz.); *A. solitarius* (Ratz.); *Macrocentrus ancylivorus* Roh.; *Meteorus versicolor* (Wesm.); *Glypta* sp.; *Phobocampe disparis* (Vier.).
Pteromalus Appendigaster Swederus, 1795. Svenska Vetensk. Akad. Handl. 16: 217.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 12, 20–21.—Rosenberg, 1934. Bul. Ent. Res. 25: 244–246.

ashmeadi Peck, n. name. Fla.
Eurytomocharis minuta Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 327. ♂ ♀. Preocc. by Walker, 1832.
Taxonomy: Girault, 1916. Canad. Ent. 48: 337–338.

atripes Gahan. N. Y., Pa., N. J., Ohio, Tenn., N. Dak., Oreg., Wash. Hosts: *Phytophaga destructor* (Say); *Cephus cinctus* Nort.
Eurytoma atripes Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 36. ♂ ♀.
Morphology: Hill and Pinckney, 1940. U. S. Dept. Agr. Tech. Bul. 715: 8, 11–13.

auriceps auriceps Walsh. N. Y., N. J., Va., Fla., Ill., Kans. Hosts: *Acraspis erinacei* (Beut.); gall of *A. hirta* (O. S.); gall of *Amphibolips spongifica* (O. S.); gall of *Callirhytis rugosa* (Ashm.); gall of *Diplolepis radicum* (O. S.).
Eurytoma auriceps Walsh, 1870. Amer. Ent. and Bot. 2: 299. ♂ ♀.
Biology: Triggerson, 1914. Ent. Soc. Amer. Ann. 7: 9–11.

auriceps seminatrix Walsh. Kans. Host gall: *Callirhytis seminator* (Harr.).
Eurytoma auriceps var. *seminatrix* Walsh, 1870. Amer. Ent. and Bot. 2: 299. ♂ ♀.

bicolor Walsh. N. J., W. Va., Mich., Ill., Mo. Hosts: *Scolytus rugulosus* (Ratz.); *Sphex* (*Isodontia*) *harrisi* (Fern.); stem gall of *Typha latifolia;* twig galls of black oak.
Eurytoma bicolor Walsh, 1870. Amer. Ent. and Bot. 2: 298. ♂ ♀.

bigeloviae Ashmead. Colo. Host: *Tephrella bigeloviae* Ckll.
Eurytoma bigeloviae Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 25, 45. ♀.

bolteri bolteri Riley. Vt. south to N. C. and west to Kans. Hosts: *Gnorimoschema gallaesolidaginis* (Riley); *Solidago* sp.
Eurytoma Bolteri Riley, 1869. Mo. State Bd. Agr. Ann. Rpt. 4: 177. ♂ ♀.
Biology: Leiby, 1922. N. Y. Ent. Soc. Jour. 30: 93.
Morphology: Snodgrass, 1910. U. S. Natl. Mus. Proc. 39: 65.

bolteri parva Phillips. N. Y., Va., Ohio, Ind., Mo., Utah. Oreg. Hosts: Lepidopterous galls on *Solidago; Harmolita tritici* (Fitch).
Eurytoma bolteri var. *parva* Phillips, 1918. U. S. Dept. Agr. Farmers' Bul. 1006: 11, 14. ♀.
Biology: Phillips, 1927. Jour. Agr. Res. 34: 743–758.—Chamberlain, 1941. U. S. Dept. Agr. Tech. Bul. 784: 25–29, 32–35.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 207–208.

brachyptera (Ashmead), n. comb. Fla.
Systole brachyptera Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 126. ♀.

californica Ashmead. Calif. Host: Gall of *Callirhytis pomiformis* (Ashm.).
Eurytoma californica Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 195. ♂ ♀.

chalcidiformis Girault. Calif.

Eurytoma chalcidiformis Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 3. ♀.

cleri Ashmead. W. Va.
Eurytoma cleri Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 323. ♀.

conica Provancher. Ont.
Eurytoma conica Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 192. ♀.
Taxonomy: Provancher, 1888. Addit Corr. Faune Ent. Canada Hym., p. 438.

crassineura Ashmead. Ont., Conn., N. J., W. Va., Colo. Hosts: *Scolytus rugulosus* (Ratz.); scolytids.
Eurytoma crassineura Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 324, 326, 327. ♂ ♀.

cretheis Walker. Fla.
Eurytoma cretheis Walker, 1843. Soc. Ent. France Ann. 2 (1): 150. ♀.

diastrophi Walsh. Que. south to N. J. and west to Colo. Hosts: Galls of *Callachna gibba* (Loew); *Diastrophus cuscutaeformis* (O. S.); *D. nebulosus* (O. S.).
Eurytoma diastrophi Walsh, 1870. Amer. Ent. and Bot. 2: 299. ♂ ♀.

dorcaschemae Ashmead. Conn., N. C., Kans. Hosts: *Dorcaschema alternatum* (Say); ?*Phloeotribus frontalis* (Oliv.).
Eurytoma dorcaschemae Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. II. ♂ ♀.

eragrostidis (Howard), n. comb. Ind., Ill. Hosts: Insects in *Agrostis alba; Eragrostis poaeoides.*
Eurytomocharis eragrostidis Howard, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 2: 21. ♂ ♀.

floridana (Ashmead). Fla.
Lamprostylus(?) ***floridanus*** Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 193. ♂.

gigantea Walsh. N. W. T., Ont., Que., Maine, N. H., N. Y., Ill., Minn., Kans., Colo. Hosts: ?*Eurosta solidaginis* (Fitch); inquiline in *E. solidaginis* gall.
Eurytoma gigantea Walsh, 1870. Amer. Ent. and Bot. 2: 300. ♀.
Callimome Duckeri Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 194.
Ormyrus elongatus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 194.
Ormyrus prolongatus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 194.
Biology: Hughes, 1934. Ent. News 45: 119–122.
Taxonomy: Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 194, 198.

hecale Walker. Fla.
Eurytoma hecale Walker, 1843. Soc. Ent. France Ann. (2) 1: 151. ♀.

illinoisensis Girault. Ill., S. Dak. Host: *Elymus* sp.
Eurytoma illinoisensis Girault, 1920. U. S. Natl. Mus. Proc. 58: 206. ♀.

incerta Fullaway. Calif. Host: Large, pointed rose gall.
Eurytoma incerta Fullaway, 1912. N. Y. Ent. Soc. Jour. 20: 277. ♂ ♀.

iphis Walker. Fla.
Eurytoma Iphis Walker, 1846. List Hym. Brit. Mus., v. 1, p. 85. ♀.

juniperina crosbyi Marcovitch. N. Y. Host: Berry of *Juniperus virginiana.*
Eurytoma juniperinus (!) var. ***Crosbyi*** Marcovitch, 1915. Ent. Soc. Amer. Ann. 8: 168. ♀.

juniperina juniperina Marcovitch. N. H., N. Y., Conn., Del., Minn. Host: Berry of *Juniperus virginiana.*
Eurytoma juniperinus (!) Marcovitch, 1915. Ent. Soc. Amer. Ann. 8: 166. ♂ ♀.

lanulae Fitch. N. Y., N. J. Hosts: *Andricus flocci* (O.S.); galls on willows; woolly galls on oak leaves.
Eurytoma lanulae Fitch, 1859. N. Y. State Agr. Soc. Trans. 18: 817.

lycti Ashmead. Va. Host: *Lyctus striatus* Melsh.
Eurytoma lycti Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 325. ♀.

maculipes (Ashmead). Canada, Fla. Host: Gall of *Belonocnema treatae* Mayr.
Decatoma maculipes Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 126. ♀.

maga Girault. ?Nearctic.
Eurytoma hegeli var. ***maga*** Girault, 1920. U. S. Natl. Mus. Proc. 58: 207. ♀. ***E. hegeli*** appears to be a *nomen nudum.*

magdalidis Ashmead. N. J., Va., Colo. Host: *Magdalis armicollis* (Say).
Eurytoma magdalidis Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 326. ♀.

medicaginis Gahan. Ariz. Host: *Asphondylia websteri* Felt.
Eurytoma medicaginis Gahan, 1919. Ent. Soc. Amer. Ann. 12: 159. ♂ ♀.

minnesotae Girault, emend. Minn. Host: In *Agropyron* sp.
Eurytoma minnesota Girault, 1916. Canad. Ent. 48: 338. ♂ ♀.

muhlenbergiae (Howard), n. comb. Mo., Mont. Host: *Muhlenbergia diffusa.*
Isosomorpha muhlenbergiae Howard, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 2: 20. ♀.

neomexicana Girault. Kans., N. Mex. Hosts: Grain-infesting insect; seed of *Sideranthus spinulosus.*
Eurytoma neomexicana Girault, 1920. U. S. Natl. Mus. Proc. 58: 205. ♂ ♀.

nevadensis (Ashmead), n. comb. Nev.
Isosoma nevadense Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 330. ♂.

nigricoxa Provancher. Ont.
Eurytoma nigricoxa Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 192. ♀.

obtusilobae Ashmead. Fla. Host: *Cynips* gall on *Quercus stellata.*
Eurytoma obtusilobae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xii. ♂ ♀.

obtusiventris Gahan. Ont., N. Y., Mass., N. C., Miss., La., Kans. Hosts: *Eurosta solidaginis* Fitch; *Tephritis finalis* (Loew).
Eurytoma obtusiventris Gahan, 1934. Ent. News 45: 117. ♂ ♀.
Biology: Hughes, 1934. Ent. News 45: 119–122.

orchidearum (Westwood). Cosmopolitan. Hosts: Bulbs, stems, leaves and buds of many kinds of orchids.
Isosoma Orchidearum Westwood, 1869. Gardeners' Chron., p. 1230. ♂ ♀.
Biology: Moore, 1916. N. J. Agr. Expt. Sta. Bul. 308: 3–12.

pachyneuron Girault. N. C., Calif. Hosts: *Scolytus rugulosus* (Ratz.); *Harmolita elymophaga* P. and E.; *H.* sp.
Eurytoma pachyneuron Girault, 1916. Canad. Ent. 48: 337. ♀.

pater Girault. N. Y., Va., Ohio, Okla., Kans. Host: *Harmolita tritici* (Fitch).
Eurytoma pater Girault, 1920. U. S. Natl. Mus. Proc. 58: 207. ♀.
Biology: Brandhorst, 1943. Kans. Acad. Sci. Trans. 46: 174.

phloeosini Ashmead. N. J., W. Va., N. C. Host: *Phloeosinus dentatus* (Say).
Eurytoma phloeosini Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 327. ♂.

phloeotribi Ashmead. N. J., W. Va., N. C. Hosts: ?*Phloeotribus dentifrons* (Blackm.); *P. frontalis* (Oliv.); *Pityophthorus liquidambarus* Blackm.; ?*Pseudopityophthorus minutissimus* (Zimm.); ?*P. pruinosus* (Eichh.); ?*Scolytus muticus* Say; ?*Stephanoderes dissimilis* (Zimm.).
Eurytoma phloeotribi Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 326. ♀.

phoebus Girault. Pa., Md., Va., Kans., S. Dak., Oreg., Wash. Hosts: *Phytophaga destructor* (Say); *Harmolita tritici* (Fitch); *H.* sp. ex *Elymus canadensis; Elymus canadensis.*
Eurytoma phoebus Girault, 1920. U. S. Natl. Mus. Proc. 58: 204. ♀.
Biology: Chambers, 1941. U. S. Dept. Agr. Tech. Bul. 784: 40.
Taxonomy: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 33–36.

phoenix Girault. Calif.
Eurytoma phoenix Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 11. ♀.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 204.

pissodis Girault. N. S. to Va., to Minn. and to Ont.; Idaho Hosts: *Pissodes strobi* (Peck); *Coeloides* sp.
Eurytoma pissodis Girault, 1917. Brooklyn Ent. Soc. Bul. 12: 88. ♂ ♀.

Biology: Taylor, 1929. Ent. Amer. 9: 208, 228–237.—Taylor, 1929. Ent. Amer. 10: 46–50, 60–62.

polygraphi (Ashmead), n. comb. Va Hosts: ?*Polygraphus rufipennis* (Kby.).
Decatomidea polygraphi Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 322. ♀.

prunicola globulicola Walsh. Ill. Hosts: *Amphibolips prunus* (Walsh); *Disholcaspis quercus-globulus* (Fitch).
Eurytoma prunicola var. *globulicola* Walsh, 1870. Amer. Ent. and Bot. 2: 299. ♀.

prunicola prunicola Walsh. D. C., Ill., Ont.
Eurytoma prunicola Walsh, 1870. Amer. Ent. and Bot. 2: 298. ♂ ♀.

punctiventris Walsh. Mich., Ill. Hosts: Galls of *Callirhytis batatoides* (Ashm.); *Disholcaspis mamma* (Cress.); D. *quercus-globulus* (Fitch).
Eurytoma punctiventris Walsh, 1870. Amer. Ent. and Bot. 2: 299. ♀.

pythes Walker. Fla.
Eurytoma pythes Walker, 1843. Soc. Ent. France Ann. 2 (1): 154. ♀.

querci Fullaway. Calif. Hosts: Galls of *Acraspis guadalopensis* (Full.); *Andricus lasius* (Ashm.).
Eurytoma querci Fullaway, 1912. N. Y. Ent. Soc. Jour. 20: 278. ♂ ♀.

querci-globuli (Fitch). N. Y., N. J. Host: *Disholcaspis quercus-globulus* (Fitch).
Macroglenes Querci-globuli Fitch, 1859. N. Y. State Agr. Soc. Trans. 18: 812.

querci-pisi (Fitch). N. Y., N. J., Fla. Hosts: *Acraspis pezomachoides* (O. S.); *Disholcaspis spongiosa* (Karsch).
Macroglenes Querci-pisi Fitch, 1859. N. Y. State Agr. Soc. Trans. 18: 819.

rhois Crosby. N. Y., Conn., Pa., D. C., Ohio to La. and Kans.; Fla. Hosts: Seeds of *Rhus copallina; R. glabra; R. hirta; R.* spp.
Eurytoma rhois Crosby, 1909. Canad. Ent. 41: 52. ♂ ♀.
Biology: Crosby, 1909. N. Y. (Cornell) Agr. Expt. Sta. Bul. 265: 385–388.

sculpta Ashmead. Fla.
Eurytoma sculpta Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 195. ♀.

seminis Bugbee. Okla., Kans. Host: Seeds of *Rhus trilobata.*
Eurytoma seminis Bugbee, 1941. Kans. Ent. Soc. Jour. 14: 98. ♂ ♀.

solenozopheriae Ashmead. Maine, Conn., N. J., Ont. Host: *Hemâdas nubilipennis* (Ashm.).
Eurytoma solenozopheriae Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 196. ♂ ♀.
Biology: Driggers 1927. N. Y. Ent. Soc. Jour. 35: 254–258.

stigmi Ashmead. Conn., Calif. Host: *Stigmus inordinatus* Fox.
Eurytoma stigmi Ashmead, 1895. *In* Davidson, Psyche 3: 271. ♂ ♀.

studiosa Say. Ont., Que., N. Y., N. J., Conn., Ind., Ill., Kans., Colo., N. Mex. Hosts: *Mordellistena nigricans* (Melsh.) in galls of *Eurosta solidaginis* Fitch; *Euura orbitalis* Nort.; *E. salicicola* Smith; *Acraspis erinacei* (Beut.); galls of *Phylloxera caryae-fallax* Riley, *P. caryae-globuli* Walsh, *Lasioptera solidaginis* O. S., *Rhabdophaga batatas* Walsh, *R. brassicoides* O. S., *R. cornuta* Walsh, and *R. strobiloides* Walsh; dipterous gall on *Leptilon canadense;* galls of *Euura nodus* Walsh, *E. salicis-ovulum* (D. T.), *E. perturbans* (Walsh), *Nematus hospes* (Walsh), *Acraspis hirta* (O. S.), *Amphibolips spongifica* (O. S.), *Callirhytis seminator* (Harr.), *Diastrophus fragariae* Beut., *Dryocosmus palustris* (O. S.), and *Xanthoteras forticorne* (Walsh).
Eurytoma studiosa Say, 1836. Boston Jour. Nat. Hist. 1: 272. ♀.
Biology: Walsh, 1870. Amer. Ent. and Bot. 2: 299.
Morphology: Triggerson, 1914. Ent. Soc Amer. Ann. 7: 9.

succinipedis Ashmead. Fla., La., Kans. Host: Gall of *Disholcaspis succinipes* (Ashm.).
Eurytoma succinipedis Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. xxxi. ♂ ♀.

teredon Walker. Fla.
Eurytoma teredon Walker, 1843. Soc. Ent. France Ann. (2) 1: 153 ♂ ♀.

tomici Ashmead. Conn., N. Y., W. Va., Fla., Calif., Wash. Hosts: *Cylindrocopturus eatoni* Buch.; *C. furnissi* Buch.; ?*Pityogenes plagiatus* (Lec.); *Epiblema strenuana* (Wlkr.).
Eurytoma tomici Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 325. ♂.

triodiae (Howard), n. comb. N. Y., D. C., Va. Hosts: *Agrostis alba; A. sp.*; *Tridens flavus*
Eurytomocharis triodiae Howard, 1896. U. S. Dept. Agr. Div. Ent. Tech. Ser. 2: 21. ♂ ♀.

tylodermatis Ashmead. Ont., east. U. S.; Wis. to La., Tex. and Colo. Hosts: *Araecerus fasciculatus* (Deg.); *Amblycerus robiniae* (F.); *Bruchus brachialis* Fahr.; *Mimosestes sallaei* (Sharp); *Anthonomus disjunctus* Lec.; *A. grandis* Boh.; *A. heterothecae* Pierce; *A. squamosus* Lec.; *Apion segnipes* Say; *Chalcodermus aeneus* Boh.; *Conotrachelus elegans* Boh.; *Cylindrocopturus longulus* Lec.; *Lixus musculus* Say; *L. scrobicollis* Boh.; *Macrorhoptus sphaeralciae* Pierce; *Orthoris crotchii* Lec.; *Tachypterellus consors cerasi* List; *T. quadrigibbus* (Say); *T. quadrigibbus magnus* List; *Trichobaris texana* Lec.; *T. trinotata* (Say); *Tyloderma foveolata* Say; *Epiblema strenuana* (Wlkr.); *Grapholitha molesta* (Busck); *G. packardi* (Zell.); *G. prunivora* (Walsh); *Laspeyresia caryana* (Fitch); *Rhyacionia buoliana* (Schiff.): *R. frustrana* (Comst.); *Mompha eloisella* (Clem.); *Coleophora malivorella* Riley; *Bucculatrix fusicola* Braun; *Meromyza americana* Fitch; *Xyela* sp. on loblolly pine; *Bracon mellitor* Say; *Glypta* sp.; *Aulacidea podagrae* (Bassett); *Entedon tachypterelli* Gahan; *Cracca virginiana* L.
Eurytoma tylodermatis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 218. ♂ ♀.
Biology: List, 1932. Colo. Agr. Expt. Sta. Bul. 385: 54–59.—Hammar, 1936. N. Y. State Agr. Expt. Sta. Tech. Bul. 240: 44–45.

vagabunda Ashmead. Fla.
Eurytoma vagabunda Ashmead, 1881. Canad. Ent. 13: 134. ♀.

vitis (Saunders), n. comb. Ont., N. Y., Conn., N. J., N. C., Ohio, Mo., Iowa. Host: Grape seeds.
Isosoma vitis Saunders, 1869. Canad. Ent. 2: 25. ♂ ♀.
Biology: Crosby, 1909. N. Y. (Cornell) Agr. Expt. Sta. Bul. 265: 380.

Genus EUDECATOMA Ashmead

Decatoma Auct., nec Spinola.
Eudecatoma Ashmead, 1888. Ent. Amer. 4: 42, 43 (no species).
Type: ***Decatoma batatoides*** Ashmead. Included by Ashmead, 1894.
Decatomidea Ashmead, 1888. Ent. Amer. 4: 42, 43.
Type: ***Decatomidea xanthochroa*** Ashmead. Desig. by Ashmead, 1894.
Revision: Balduf, 1932. U. S. Natl. Mus. Proc. 79: 1–95 (*Decatoma*).
Nomenclature: Hincks, 1944. Roy. Ent. Soc. London, Proc., Ser. B, 13 (3–4): 37.

amsterdamensis (Girault), n. comb. Que., N. Y., Oreg. Hosts: *Kermes* sp. on rose; *Phytophaga destructor* (Say); *Ditropinotus aureoviridis* Cwfd.; *Eurytoma parva* Phill.; *Harmolita atlantica* P. and E.; *H. hordei* (Harr.); *H. tritici* (Fitch).
Decatoma amsterdamensis Girault, 1917. Descr. Stellarum Nov., p. 10. ♂ ♀.
Biology: Chamberlain, 1941. U. S. Dept. Agr. Tech. Bul. 784: 29, 40.
Taxonomy: Gahan, 1933. U. S. Dept. Agr. Misc. Pub. 174: 38–41.

arizonica (Balduf), n. comb. Ariz. Host: Gall of *Andricus ruginosus* Bass.
Decatoma foliatae var. ***arizonica*** Balduf, 1932. U. S. Natl. Mus. Proc. 79 (29): 82. ♂ ♀.

autumnalis (Girault), n. comb. Calif.
Decatoma autumnalis Girault, 1920. U. S. Natl. Mus. Proc. 58: 209. ♀.

batatoides (Ashmead). N. J., Fla. Host: Gall of *Callirhytis batatoides* (Ashm.).
Decatoma batatoides Ashmead, 1881. Canad. Ent. 13: 136.

bicolor (Ashmead), n. comb. Fla., La. Host: Gall of *Belonocnema treatae* Mayr.

Decatoma bicolor Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. xxxii. ♀.

catesbaei (Ashmead), n. comb. Fla. Host: Gall of *Bassettia catesbaei* (Ashm.).
Decatoma catesbaei Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. xxxii. ♀.
Decatoma catesbii Dalla Torre, 1898. Cat. Hym., v. 5, p. 327. Emend.

compressa (Girault), n. comb. Calif.
Decatoma compressa Girault, 1920. U. S. Natl. Mus. Proc. 58: 209. ♀.

disholcaspis (Balduf), n. comb. Tex., Colo., N. Mex., Ariz. Host galls: *Adleria* sp.; *Andricus ruginosus* Bass.; *Disholcaspis cinerosa* (Bass.); *D.* sp.
Decatoma disholcaspis Balduf, 1932. U. S. Natl. Mus. Proc. 79 (28): 23. ♂ ♀.

dorsalis (Fitch). Mass., N. Y. to D. C. and Kans., Fla., La., Tex. Gall hosts: *Acraspis erinacei* (Beut.); *Andricus aciculatus* Beut.; *A. flocci* (O. S.); *A. petiolicola* (O. S.); *Callirhytis tumifica* (O. S.); *Disholcaspis mamma* (Cress.); *D. quercus-globulus* (Fitch); *Neuroterus majalis* (O. S.); *Xanthoteras forticorne* (O. S.).
Spalangia Querci-lanae var. ***dorsalis*** Fitch, 1859. N. Y. State Agr. Soc. Trans. 18: 816.

dubia doanei (Fullaway), n. comb. Colo., Utah, Calif. Host galls: *Disholcaspis canescens* (Bass.); *D. chrysolepidis* (Beut.); *D. corallina* (Bass.); *D. eldoradensis* (Beut.); *D. plumbella* Kinsey.
Decatoma doanei Fullaway, 1912. N. Y. Ent. Soc. Jour. 20: 279. ♀.

dubia dubia (Walsh), n. comb. Ont., Mass., R. I., Conn., N. J., Mich., N. C., Ga., Ala., Mo., Tex., Ariz., Utah. Hosts: Galls of *Belonocnema fossoria* Weld; *Callirhytis punctata* O. S.; *Disholcaspis mamma* (Cress.); *D. quercus-globulus* (Fitch); *D. spongiosa* (Karsch); *Dryocosmus imbricariae* (Ashm.).
Decatoma varians var. ***dubia*** Walsh, 1870. Amer. Ent. and Bot. 2: 300. ♂ ♀.

dubia rufosa (Balduf), n. comb. N. Y., Va., S. C., Ga., Fla., Ala., Ill., Tex. Host galls: *Belonocnema fossoria* Weld; *Disholcaspis mamma* (Cress.); *D. quercus-globulus* (Fitch); *D. spongiosa* (Karsch).
Decatoma dubia rufosa Balduf, 1932. U. S. Natl. Mus. Proc. 79 (28): 41. ♂ ♀.

flammineiventris (Girault), n. comb. Colo., N. Mex. Hosts: *Prodoxus quinquepunctellus* (Chamb.); *P. y-inversus* Riley.
Decatoma flammineiventris Girault, 1920. U. S. Natl. Mus. Proc. 58: 208. ♂ ♀.

flava (Ashmead), n. comb. Mass. and N. Y. to N. C. and Mo.; Tex., N. Mex. Hosts: *Acraspis erinacei* (Beut.); *A. macrocarpae* Bass.; *A. pezomachoides* (O. S.); *Andricus aciculatus* Beut.; *A. murtfeldtae* Ashm.; *A. petiolicola* O. S.; *A. tubularius* Weld; *Callirhytis seminator* (Harr.); *Dryocosmus floridensis* (Beut.); *Loxaulus humilis* (Weld); *Neuroterus noxiosus* (Bass.); *N. quercus-batatus* (Fitch).
Decatoma flava Ashmead, 1881. Canad. Ent. 13: 134. ♂ ♀.
Biology: Triggerson, 1914. Ent. Soc. Amer. Ann. 7: 8–9.

flavipes (Balduf), n. comb. Ariz. Host: Gall of *Dryocosmus coxii* (Bass.).
Decatoma flavipes Balduf, 1932. U. S. Natl. Mus. Proc. 79 (28): 52. ♂ ♀.

floridae (Girault), emend.; n. comb. Fla. Host: ?*Andricus flocci* (O. S.).
Decatoma florida Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 6. ♀.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 208.

foliatae (Ashmead), n. comb. Va., Fla., Mo., Ill. Hosts: Galls of *Andricus foliatus* Ashm.; *Callirhytis flavipes* (Gill.); *Disholcaspis quercus-globulus* (Fitch); *Dryocosmus imbricariae* (Ashm.).
Decatoma foliatae Ashmead, 1881. Canad. Ent. 13: 136. ♂ ♀.

globuli (Balduf), n. comb. Ill. Hosts: Galls of *Andricus ruginosus* Bass.; *A. tecturnarum* Kinsey; *Disholcaspis eldoradensis* (Beut.); *D. quercus-globulus* (Fitch); *D. spongiosa* (Karsch); *D.* sp.; *Xanthoteras forticorne* (O. S).
Decatoma globuli Balduf, 1932. U. S. Natl. Mus. Proc. 79 (28): 47. ♂ ♀.

gracilis (Fullaway), n. comb. Calif. Host: Gall of *Andricus californicus* Ashm.
Decatoma gracilis Fullaway, 1912. N. Y. Ent. Soc. Jour. 20: 280. ♂.

isis (Girault), n. comb. Calif. Hosts: Galls of *Andricus californicus* Ashm.; *A. chrysolepidicola* (Ashm.); *A. spectabilis* Kinsey; *Callirhytis pomiformis* (Ashm.); *C. suttoni* (Ashm.).
Decatoma isis Girault, 1917. Descr. Stellarum Nov., p. 10. ♀.

lanae (Ashmead), n. comb. Fla. Host: Gall of *Callirhytis turnerii* (Ashm.).
Decatoma lanae Ashmead, 1881. Canad. Ent. 13: 135. ♂ ♀.

lobatae (Balduf), n. comb. Calif. Hosts: Galls of *Andricus wiltzae* Full.; *Neuroterus varians* Kinsey.
Decatoma lobatae Balduf, 1932. U. S. Natl. Mus. Proc. 79 (28): 45. ♀.

marylandica (Girault), n. comb. N. S., Md., D. C. Host: Gall of *Neuroterus quercus-batatus* (Fitch).
Decatoma marylandica Girault, 1916. Brooklyn Ent. Soc. Bul. 11: 112. ♀.

michiganica (Girault), n. comb. Mich.
Decatoma michiganica Girault, 1920. U. S. Natl. Mus. Proc. 58: 209. ♀.

mimosae (Balduf), n. comb. Ariz. Host: Stem gall on *Mimosa biuncifera*.
Decatoma mimosae Balduf, 1932. U. S. Natl. Mus. Proc. 79 (28): 25. ♂ ♀.

nigriceps excrucians (Walsh), n. comb. Ill. Host: Gall of *Callirhytis seminator* (Harr.).
Decatoma nigriceps var. ***excrucians*** Walsh, 1870. Amer. Ent. and Bot. 2: 301. ♂ ♀.

nigriceps nigriceps (Walsh), n. comb. Mass., Conn., Va., Ill., Mo., Kans. Hosts: Galls of *Callirhytis tumifica* (O. S.); *Disholcaspis mamma* (Cress.); *Xanthoteras forticorne* (O. S.).
Decatoma nigriceps Walsh, 1870. Amer. Ent. and Bot. 2: 300. ♂ ♀.

novascotiae (Balduf), n. comb. N. S., Va. Hosts: Galls of *Callirhytis cornigera* (O. S.); *Neuroterus quercus-batatus* (Fitch).
Decatoma novascotiae Balduf, 1932. U. S. Natl. Mus. Proc. 79 (28): 50. ♂ ♀.

nubilistigma (Walsh), n. comb. Que., N. Y., Mass., N. J., Ill., Kans. Host: ?*Rhabdophaga batatas* Walsh.
Decatoma nubilistigma Walsh, 1870. Amer. Ent. and Bot. 2: 301. ♂ ♀.

occidentalis flavifrons (Balduf), n. comb. Ariz. Host: Gall on an evergreen oak.
Decatoma occidentalis var. ***flavifrons*** Balduf, 1932. U. S. Natl. Mus. Proc. 79 (28): 61. ♂.

occidentalis occidentalis (Balduf), n. comb. Conn., Colo., N. Mex., Ariz., Calif. Hosts: Galls of *Adleria weldi* (Beut.); *A.* sp.; *Andricus chrysolepidicola* (Ashm.); *A. lasius* (Ashm.); *A. lasius areolaris* Kinsey; *A. ruginosus* Bass.; *A.* sp., *Antron echinus* (Ashm.); *Disholcaspis canescens* (Bass.); *D. corallina* (Bass.); *D. truckeensis* (Ashm.).
Decatoma occidentalis Balduf, 1932. U. S. Natl. Mus. Proc. 79 (28): 58. ♂ ♀.

pezomachoides (Balduf), n. comb. Ohio. Host: Gall of *Acraspis pezomachoides* (O. S.).
Decatoma pezomachoides Balduf, 1932. U. S. Natl. Mus. Proc. 79 (28): 69. ♀.

pomiformis (Balduf), n. comb. Calif. Host: Gall of *Callirhytis pomiformis* (Ashm.).
Decatoma pomiformis Balduf, 1932. U. S. Natl. Mus. Proc. 79 (28): 70. ♂ ♀.

querci (Ashmead), n. comb. Fla. Host: Dipterous gall on *Quercus catesbaei*.
Decatoma querci Ashmead, 1881. Canad. Ent. 13: 135. ♂.

querci-lanae (Fitch). Canada, N. Y. to Fla.; Ariz., Tex., Colo. Host galls: ?*Acraspis erinacei* (Beut.); *A. inflata* (Kinsey); ?*A. pezomachoides* (O. S.); *Andricus aciculatus* Beut.; *A. flocci* (O. S.); *A. murtfeldtae* Ashm.; *A. pattoni* (Bass.); *A. petiolicola* (O. S.); *Callirhytis flavipes* (Gill.); *C. scitula* (O. S.); *C. seminator* (Harr.); *C. tumifica* (O. S.); *Disholcaspis mamma* (Cress.); *D. quercus-globulus* (Fitch); *Neuroterus majalis* (O. S.); *N. quercus-batatus* (Fitch); *N.* ?*saltarius* Weld; *Xanthoteras forticorne* (O. S.).

Spalangia Querci-lanae Fitch, 1859. N. Y. State Agr. Soc. Trans. 18: 816.
Decatoma hyalipennis Walsh, 1870. Amer. Ent. and Bot. 2: 301. ♂ ♀.
Decatoma flavicollis Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xiii. ♂ ♀. Preocc.
Decatoma floridana Smith, 1886. Ent. Amer. 2: 19. N. name.

quinqueseptae (Balduf), n. comb. Calif. Host: Gall of *Andricus petiolicola* (O. S.).
Decatoma quinqueseptae Balduf, 1932. U. S. Natl. Mus. Proc. 79 (28): 78. ♂ ♀.

salutaris (Crosby), n. comb. N. Y. Host: *Nepticula slingerlandella* Kearf.
Derostenus salutaris Crosby, 1911. Canad. Ent. 43: 414. ♂.
Biology: Crosby, 1911. N. Y. (Cornell) Agr. Expt. Sta. Bul. 308: 222–223.

simplicistigma (Walsh), n. comb. Ill., Kans., Colo. Hosts: Galls of *Acraspis erinacei* (Beut.); *Andricus petiolicola* (O. S.).
Decatoma simplicistigma Walsh, 1870. Amer. Ent. and Bot. 2: 301. ♂ ♀.

subimmaculata (Girault), n. comb. Calif. Host galls: *Andricus lasius* (Ashm.); *A. lasius sublasius* Kinsey; *A. spectabilis* Kinsey; *Callirhytis pomiformis* (Ashm.); *C.* sp.; *Disholcaspis truckeensis* (Ashm.); ?*Heteroecus dasydactyli* (Ashm.); ?*H. melanoderma* Kinsey; *H. pacificus* (Ashm.).
Decatoma subimmaculata Girault, 1917. Jour. Ent. and Zool. 9: 11. ♀.

texana (Balduf), n. comb. Tex.
***Decatoma* texana** Balduf, 1932. U. S. Natl. Mus. Proc. 79 (28): 22. ♂ ♀.

vacciniicola (Balduf), n. comb. Ont., Que. to Va. and Ill., La. Host: Gall of *Hemadas nubilipennis* (Cwfd.).
Decatoma vacciniicola Balduf, 1932. U. S. Natl. Mus. Proc. 79 (28): 12. ♂ ♀.
Biology: Glick, 1939. U. S. Dept. Agr. Tech. Bul. 673: 45.

varians (Walsh) n. comb. Ont. to Va.; Ill., Mo., Fla., La., Tex., Colo., Calif. Hosts: Galls of ?*Acraspis erinacei* (Beut.); ?*Amphibolips inanis* (O. S.); ?*A. spongifica* (O. S.); *Andricus chrysolepidicola* Ashm.; *A. chrysolepidicola* var. *pugnus* Kinsey; *Callirhytis frequens* (Gill.); *C. gemmaria* (Ashm.); *C. punctata* (O. S.); ?*Disholcaspis bassetti* (Gill.); *D. eldoradensis* (Beut.); ?*D. mamma* (Cress.); *D. quercus-globulus* (Fitch); *Dryocosmus imbricariae* (Ashm.); ?*D. palustris* (Ashm.); *Sphaeroteras caepuliforme* (Beut.).
Decatoma varians Walsh, 1870. Amer. Ent. and Bot. 2: 300. ♂ ♀.
Decatoma phellos Ashmead, 1881. Canad. Ent. 13: 136. ♂.
Decatoma kelloggi Fullaway, 1912. N. Y. Ent. Soc. Jour. 20: 278. ♂ ♀.

wiltzae (Balduf), n. comb. Conn., Ariz., Calif. Hosts: Galls of *Andricus wiltzae* Full.; ?*Rhodites fusiformans* Ashm.
Decatoma wiltzae Balduf, 1932. U. S. Natl. Mus. Proc. 79 (28): 83. ♂ ♀.

xanthochroa (Ashmead), n. comb. Fla., Tex. Hosts: Galls of *Andricus murtfeldtae* Ashm.; *Callirhytis flavipes* (Gill.).
Decatomidea xanthochroa Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 322. ♀.
Decatoma brevilobae Balduf, 1932. U. S. Natl. Mus. Proc. 79 (28): 56. ♂ ♀. N. syn.

Genus SYSTOLE Walker

Systole Walker, 1832. Ent. Mag. 1: 13, 22.
Type: ***Systole albipennis*** Walker. Monob.

minuta Ashmead. Fla.
Systole minuta Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 319. ♂ ♀.

Genus BRUCHOPHAGUS Ashmead

Bruchophagus Ashmead, 1888. Ent. Amer. 4: 42, 43. No species.
Type: ***Bruchophagus borealis*** Ashmead. Desig. by Ashmead, 1894.
Systolodes Ashmead, 1888. Ent. Amer. 4: 42, 43. No species.
Type: ***Systolodes brevicornis*** Ashmead. Included by Ashmead, 1894.

borealis Ashmead. Ont. Host: *Bruchus* sp.
Bruchophagus borealis Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 328. ♂ ♀.
Taxonomy: Girault, 1916. Canad. Ent. 48: 338.

gibbus (Boheman). Commonly known as the clover seed chalcid. Cosmopolitan; common throughout North America. Seed hosts: ?*Astragalus douglasii*; ?*Hosackia puberula; Medicago arabica; M. hispida denticulata; ?Oxytropis lamberti;* alfalfa; burr clover; crimson clover; mammoth red clover; red clover.
Eurytoma gibba Boheman, 1836 (1835). Svenska Vetensk. Akad. Handl. 56: 244. ♀.
Eurytoma funebris Howard, 1880. U. S. Dept. Agr. Ann. Rpt. for 1879, p. 196. ♂ ♀.
Systolodes brevicornis Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 320. ♂ ♀.
Biology: Wildermuth, 1931. U. S. Dept. Agr. Farmers' Bul. 1642: 1–14.—Smith, 1943. Kans. State Bd. Agr. Rpt. 62 (255); 395.—Sorenson, 1944. Jour. Econ. Ent. 37: 373.—Schull, 1944. Idaho Agr. Expt. Sta. Bul. 252: 15, 56.

mexicanus Ashmead. N. Mex. Hosts: *Acanthoscelides alboscutellatus* (Horn); *Bruchus* sp. on *Lotus* pods; *Callosobruchus chinensis* (L.).
Bruchophagus mexicanus Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 328. ♂ ♀.

noctua Girault. Ariz.
Bruchophagus noctua Girault, 1917. New Chalcid Flies, p. la.

Family PODAGRIONIDAE Peck, New Family

Subfamily PODAGRIONINAE

Genus PODAGRION Spinola

Podagrion Spinola, 1811. Paris Mus. Hist. Nat. Ann. 17: 147.
Type: ***Podagrion splendens*** Spinola. Monob.
Palmon Dalman, 1825. Svenska Vetensk. Akad. Handl. 46: 388.
Type: ***Palmon bellator*** Dalman. Desig. by Gahan and Fagan, 1923.
Priomerus Walker, 1833. Ent. Mag. 1: 116, 118
Type: (***Priomerus pachymerus*** Walker)=***Podagrion splendens*** Walker. Monob.
Pachytomus Westwood, 1847. Ent. Soc. London Trans. 4 (4): 260.
Type: ***Pachytomus klugianus*** Westwood. Monob.
Notopodion Dahlbom, 1857. Öfvers. Svenska Vetensk. Akad. Forh. 14: 295.
Type: ***Podagrion splendens*** Spinola. Desig. by Gahan and Fagan, 1923.
Bactrischion A. Costa, 1857. Accad. delle Sci. Fis. e Mat. Napoli Mem. (A) 2: 223.
Type: (***Bactrischion bicoloratum*** Costa)=***Podagrion splendens*** Spinola. Monob.
Notopodium Schulz, 1906. Spolia Hym., p. 144. Emend.
Podagrium Schulz, 1906. Spolia Hym., p. 150. Emend.

The members of this genus parasitize the eggs of mantids.

crassiclava Gahan. Tex., Ariz. Hosts: *Mantis* sp.; *Stagmomantis limbata* (Hahn).
Podagrion crassiclava Gahan, 1922. U. S. Natl. Mus. Proc. 61 (24): 6. ♂ ♀.

mantis Ashmead. N. J. to Fla., La., Tex., Mo., Kans., Ariz. Hosts: *Mantis* eggs, *Stagmomantis carolina* (Johan.), ?*S. limbata* (Hahn), *Tenodera angustipennis* Sauss., *T. aridifolia sinensis* Sauss.
Podagrion mantis Ashmead, 1886. Canad. Ent. 18: 57. ♀.
Biology: Breland, 1941. Ent. Soc. Amer. Ann. 34: 99–133.

Subfamily CHALCEDECTINAE

Genus CHALCEDECTUS Walker

Chalcedectus Walker, 1852. Ann. Mag. Nat. Hist. (2) 10: 47.
Type: *Chalcedectus maculicornis* Walker. Monob.
Chalcodectus Dalla Torre, 1898. Cat. Hym., v. 5, pp. 186, 569. Emend.

texanus Brues Tex.
Chalcedectes (!) *texanus* Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 106. ♂.

Genus EUCHRYSIA Westwood

Euchrysia Westwood, 1874. Thesaurus Ent. Oxon., p. 139.
Type: *Euchrysia cleptidea* Westwood. Desig. by Ashmead, 1904.
Revision: Girault, 1917. Brooklyn Ent. Soc. Bul. 12: 14–15.

hyalinipennis Ashmead. N. C., Mo., Tex., Calif. Hosts: *Chrysobothris deleta* Lec.; ?*Phloeotribus frontalis* (Oliv.).
Euchrysia hyalinipennis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 231. ♀.

maculipennis Ashmead. Calif.
Euchrysia maculipennis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 232. ♂.

similis Girault. Kans.
Euchrysia similis Girault, 1917. Brooklyn Ent. Soc. Bul. 12: 15. ♀.

Family CHALCIDIDAE

Subfamily HALTICHELLINAE

See comment under *Haltichella*.

Genus HALTICHELLA Spinola

Haltichella Spinola, 1811. Paris Mus. Hist. Nat. Ann. 17: 148.
Type: *Chalcis pusilla* Fabricius. Desig. by Westwood, 1840.
Halticella Stephens, 1829. Nomencl. Brit. Ins., p. 36. Emend.
Revision: Gahan, 1927. Jour. Agr. Res. 34: 545.

Kerrich and Menon (1949, Ent. Monthly Mag. 85: 207–211) have questioned the identity of *Chalcis pusilla* F. and its status as genotype of *Haltichella*. Their findings may affect the current usage of the names *Haltichella*, Haltichellinae, *Brachymeria*, and Brachymeriinae.

americana Howard. D. C.
Haltichella americana Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 9, 36. ♀.

longicornis Ashmead. S. C., Fla. Host: *Grapholitha molesta* (Busck).
Halticella longicornis Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 185. ♀.
Biology: Nettles, 1934. Jour. Econ. Ent. 27: 815–816.

onatas (Walker). Fla., Kans. Host gall: *Xanthoteras politum* (Bass.).
Hockeria onatas Walker, 1843. Soc. Ent. France Ann. (2) 1: 146. ♀.

perpulchra (Walsh). N. Y., Ill., Mo. Host: *Apanteles militaris* (Walsh).
Hockeria perpulchra Walsh, 1861. Prairie Farmer (n. s.) 8: 258.

rhyacioniae Gahan. Mass., Va., Nebr. Hosts: *Rhyacionia frustrana* (Comst.); *R. frustrana bushnelli* (Busck).
Haltichella rhyacioniae Gahan, 1927. Jour. Agr. Res. 34: 545. ♂ ♀.
Biology: Underhill, 1943. Va. Agr. Expt. Sta. Bul. 349: 12.

xanticles (Walker). Que. to Fla., Ill., Ohio, Kans., Nebr. Hosts: *Rhyacionia buoliana* (Schiff.); *Bucculatrix canadensisella* Chamb.; *Solenobia walshella* Clem.; *Apanteles melanoscelus* (Ratz.).
Hockeria xanticles Walker, 1843. Soc. Ent. France Ann. (2) 1: 147. ♀.
Biology: Muesebeck and Dohanian, 1927. U. S. Dept. Agr. Bul. 1487: 18.—Swenk, 1927. Nebr. Agr. Expt. Sta. Res. Bul. 40: 45–46.

Genus STOMATOCERAS Kirby

Stomatoceras Kirby, 1883. Linn. Soc. London, Jour., Zool. 17: 54, 62.
Type: ***Halticella liberator*** Walker. Monob.
Irichohaltichella Girault, 1912. Linn. Soc. N. S. Wales Proc. 36: 637.
Type: ***Irichohaltichella pilosella*** Cameron. Monob.
Stomatoceroides Girault, 1913. Canad. Ent. 45: 140.
Type: ***Stomatoceroides bicolor*** Girault. Orig. desig.

rubrum eriense Wallace. N. J., N. C., Tex., Okla., Kans., N. Dak. Hosts: *Myrmeleon immaculatus* Deg.; myrmeleonid.
Stomatoceras rubra var. ***eriensis*** Wallace, 1942. Carnegie Mus. Ann. 29: 31. ♂ ♀.

rubrum rubrum Ashmead. Tex., Ariz.
Stomatocera (!) ***rubra*** Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 332. ♀.

tenuicorne Girault. Ariz.
Stomatoceras tenuicornis Girault, 1918. Ent. News 29: 127. ♀.

unipunctatipennis americense Girault. N. J.
Stomatoceras unipunctatipennis americensis Girault, 1918. Ent. News 29: 127. ♀.

unipunctatipennis unipunctatipennis Girault. W. Va.
Stomatoceras unipunctatipennis Girault, 1918. Ent. News 29: 127. ♀.

Genus SCHWARZELLA Ashmead

Schwarzella Ashmead, 1904. Carnegie Mus. Mem. 1: 256.
Type: ***Schwarzella arizonensis*** Ashmead. Monob.

arizonensis Ashmead. Ariz.
Schwarzella arizonensis Ashmead, 1904. Carnegie Mus. Mem. 1: 256, 388. ♂.
Taxonomy: Gahan and Peck, 1946. Wash. Acad. Sci. Jour. 36: 316.

Subfamily BRACHYMERIINAE

See comment under *Haltichella*, p. 584.

Genus ACANTHOCHALCIS Cameron

Acanthochalcis Cameron, 1884. Biol. Cent.-Amer., Hym., v. 1, p. 100.
Type: ***Acanthochalcis nigricans*** Cameron. Monob.

nigricans Cameron. N. Mex., Ariz. Host: ?*Chrysobothris femorata* (Oliv.).
Acanthochalcis nigricans Cameron, 1884. Biol. Cent.-Amer., Hym., v. 1, p. 100. ♀.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 193.

unispinosa Girault. Tex.
Acanthochalcis unispinosa Girault, 1917. New Chalcid Flies, p. 5.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 194.

Genus PHASGONOPHORA Westwood

Phasgonophora Westwood, 1832. *In* Griffith, Cuvier's Animal Kingdom 15 (Insecta 2), p. 432, pl. 77, fig. 2.
Type: ***Phasgonophora sulcata*** Westwood. Monob.
Phasganophora Dalla Torre, 1898. Cat. Hym., v. 5, p. 371. Emend.

sulcata Westwood. N. Y. to Fla., Ariz., Calif., and Oreg. Hosts: *Agrilus anxius* Gory; *Chrysobothris femorata* (Oliv.); ?*C. sexsignata* (Say); ?*Papilio* sp.; ?*Telea polyphemus* (Cram.).
Phasgonophora sulcata Westwood, 1832. *In* Griffith, Cuvier's Animal Kingdom 15 (Insecta 2), p. 432. ♀.
Smicra gigantea Ashmead, 1881. Canad. Ent. 13: 90. ♀.
Biology: Blackman and Stage, 1924. N. Y. State Col. Forestry, Syracuse Univ., Tech. Pub. 17: 19, 22, 25.—Rhoads, 1924. *In* Blackman and Stage, N. Y.

State Col. Forestry, Syracuse Univ., Tech. Pub. 17: 188.
Taxonomy: Burks, 1940. U. S. Natl. Mus. Proc. 88: 351.

Genus TRIGONURA Sichel

Trigonura Sichel, 1865. Soc. Ent. France Ann. (4) 5: 376.
Type: ***Trigonura crassicauda*** Sichel. Monob.
Centrochalcis Cameron, 1913. Indian Forest Rec. 4: 92. Preocc.
Type: ***Centrochalcis ruficaudis*** Cameron. Monob.
Centrochalcidea Gahan and Fagan, 1923. U. S. Natl. Mus. Bul. 124: 28. N. name.

californica Rohwer. Calif. Host: *Chrysobothris mali* Horn.
Trigonura californica Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 171. ♂ ♀.

elegans (Provancher), n. comb. Que., Ill.
Phasgonophora elegans Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 191. ♀.

hicoriae Rohwer. N. Y., Conn. Hosts: *Chrysobothris femorata* (Oliv.); *C. sexsignata* (Say); *Magdalis armicollis* (Say); *M. barbita* (Say);. ?*Scolytus multistriatus* (Marsh.).
Trigonura hicoriae Rohwer, 1919. Canad. Ent. 51: 160. ♂ ♀.
Biology: Kaston, 1937. Conn. Agr. Expt. Sta. Bul. 396: 358.

tarsata (Dalla Torre). Que., N. H., N. Y., W. Va., Va. Host: *Pissodes strobi* (Peck).
Chalcis tarsalis Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 332. ♂. Preocc.
Chalcis tarsata Dalla Torre, 1898. Cat. Hym., v. 5, p. 393. N. name.

Genus BRACHYMERIA Westwood

See comment under *Haltichella*, p. 584.

Brachymeria Westwood, 1829. *In* Stephens, Nomencl. Brit. Ins., v. 1, p. 36.
Type: ***Chalcis minuta*** Fabricius. Desig. by Westwood, 1840.
Tumidicoxa Girault, 1911. Zool. Jahrb. Abt. f. System. 31: 378.
Type: ***Tumidicoxa nigra*** Girault. Orig. desig.
Ceyxia Girault, 1911. Zool. Jahrb. Abt. f. System. 31: 382.
Type: ***Ceyxia fumipennis*** Girault. Orig. desig.
Brachepitelia Girault, 1913. Canad. Ent. 45: 106.
Type: ***Brachepitelia rubripes*** Girault. Monob.
Pseudepitelia Girault, 1913. Canad. Ent. 45: 104.
Type: ***Pseudepitelia rubrifemur*** Girault. Orig. desig.
Tumidicoxella Girault, 1913. Roy. Soc. So. Austral. Trans. 37: 74.
Type: ***Tumidicoxella nigricoxa*** Girault. Orig. desig.
Tumidicoxoides Girault, 1913. Arch. f. Naturgesch. 79A (6): 86.
Type: ***Tumidicoxoides kurandaensis*** Girault. Monob.
Revisions: Crawford, 1910. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 19: 14 (*Chalcis*).—Burks, 1936. Ill. State Acad. Sci. Trans. 29: 251–254 (Ill.).

belfragei (Crawford), n. comb. Tex.
Chalcis belfragei Crawford, 1910 (1909). Ent. Soc. Wash. Proc. 11: 205. ♀.

coloradensis (Cresson). Ont., N. C. to Fla., Tex. and Sask. Hosts: *Melanoplus bivittatus* (Say); *M. femur-rubrum* (Deg.); *M. mexicanus* (Sauss.); *Sarcophaga kellyi* Ald.
Chalcis femorata Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 143. ♀. Preocc.
Chalcis coloradensis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 60. ♂.
Chalcis Dalmanni (!) Thomson, 1875. Hym. Scand., v. 4, p. 17. ♂ ♀. N. name.
Biology: Burks, 1941. Ill. State Acad. Sci. Trans. 33: 208.—Smith, 1944. Canad. Ent. 76: 29–32.

columbiana (Howard). D. C.
Chalcis columbiana Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 8, 36. ♀.

compsilurae (Crawford). New England, Ill., Wis. Hosts: *Nygmia phaeorrhoea* (Donov.); *Ennomos subsignarius* (Hbn.); *Achaetoneura aletia* (Riley); *A. frenchii* (Will.); *Carcelia amplexa* (Coq.); *C. laxifrons* Vill.; *Compsilura concinnata* (Meig.); *Exorista larvarum* (L.); *Pelatachina pellucida* Coq.; *Phorocera agilis* R.-D.; *P. claripennis* Macq.; *Sturmia nidicola* Tns.; *S. scutellata* (R.-D.); *Pikonema alaskensis* (Roh.).

Chalcis compsilurae Crawford, 1911. U. S. Natl. Mus. Proc. 41: 272. ♂ ♀.

Biology: Dowden, 1935. Jour. Agr. Res. 50: 495–523.—Flanders, 1944. Jour. Econ. Ent. 37: 409–410.

fonscolombei (Dufour). Throughout south. U. S.; Md., Ill., Kans. Hosts: Tephritid seed maggot from ironweed; *Synthesiomyia nudiseta* Wulp; *Calliphora coloradensis* Hough; *Callitroga macellaria* (F.); *Phaenicia mexicana* (Macq.); *P. sericata* (Meig.); *Phormia regina* (Meig.); *Sarcophaga carnaria* (L.); *S. haemorrhoidalis* (Fall.); *S. impar* Ald.; *S. plinthopyga* Wied.

Chalcis Fonscolombei Dufour, 1841. Soc. Ent. France Ann. 10: 12.

Biology: Roberts, 1933. U. S. Dept. Agr. Tech. Bul. 365; 1–22.

Morphology: Parker, 1924. Soc. Ent. France Ann. 93: 264, 297.

hammari (Crawford). S. C., Mo., Tex., N. Mex. Hosts: *Ancylis comptana fragariae* W. and R.; *Grapholitha molesta* (Busck); *Archips argyrospila* (Wlkr.); *Filatima monotaeniella* (Bott.).

Chalcis hammari Crawford, 1915. Insecutor Inscitiae Menstruus 3: 89. ♂ ♀.

Biology: Nettles, 1934. Jour. Econ. Ent. 27: 815–816.

incerta (Cresson). Fla.

Chalcis incerta Cresson, 1865. Ent. Soc. Phila. Proc. 4: 101.

Biology: Needham, 1948. Ecol. Monog. 18: 446.

louisianae (Girault), emend; n. comb. La. Host: *Pseudococcus citri* (Risso).

Chalcis louisiana Girault, 1917. Descr. Stellarum Nov., p. 6. ♀.

ovata abiesae (Girault). Calif. Hosts: *Phryganidia californica* Pack.; *Malacosoma californicum* (Pack.).

Chalcis ovata var. ***abiesae*** Girault, 1917. Descr. Stellarum Nov., p. 19. ♂ ♀.

Taxonomy: Rohwer, 1918. Ent. Soc. Wash. Proc. 20: 18.

ovata ovata (Say). Que. to Fla., Tex., and Nebr.; N. Mex. to Calif. and Oreg. Hosts: *Papilio zelicaon* Lucas; *Colias philodice eurytheme* (Bdvl.); *Agraulis vanillae* (L.); *Asterocampa clyton* (Bdvl. and Lec.); *Nymphalis antiopa* (L.); *N. californica* (Bdvl.); *Hemileuca oliviae* Ckll.; *Alabama argillacea* (Hbn.); *Anomis erosa* Hbn.; *Anticarsia gemmatilis* Hbn.; *Heliothis armigera* (Hbn.); *Phryganidia californica* Pack.; *Hemerocampa leucostigma* (A. and S.); *H. oslari* (Barnes); *H. vetusta* (Bdvl.); *Nygmia phaeorrhoea* (Donov.); ?*Porthetria dispar* L.; ?*Cingilia catenaria* (Drury); *Deuteronomos magnarius* (Guen.); *Lambdina fiscellaria* (Hulst); *Philtraea elegantaria* (Hy. Edw.); *Desmia funeralis* (Hbn.); *Diaphania hyalinata* (L.); *D. nitidalis* (Stoll); *Pyrausta penitalis* (Grote); *Ancylis comptana* (Froel.); *Grapholitha molesta* (Busck); *Acleris minuta* (Rob.); *Archips argyrospila* (Wlkr.); *A. rosaceana* (Harr.); *Homona fervidana* (Wlkr.); *Anacampsis fragariella* Busck; *Gnorimoschema gallae-solidaginis* (Riley); *Thyridopteryx ephemeraeformis* (Haw.); pomegranate bagworm; *Exorista larvarum* (L.).

Chalcis ovata Say, 1824. *In* Keating, Narr. Long's 2nd Exped., App., p. 326.

Biology: Howard, 1897. U. S. Dept. Agr. Div. Ent. Tech. Ser. 5: 25–28.—Snodgrass, 1917. Ind. State Ent. Ann. Rpt. 9: 180, 188–189.

pedalis (Cresson). Tex., Fla. Hosts: *Olycella junctolineella* (Hulst); *Melitara prodenialis* Wlkr.

Chalcis pedalis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 60. ♀.

robustus (Cresson). Fla. Hosts: *Papilio cresphontes* Cram.; *Lymire edwardsi* (Grote); *Megalopyge opercularis* (A. and S.).

Chalcis robusta Cresson, 1865. Ent. Soc. Phila. Proc. 4: 101.

slossonae (Crawford), n. comb. Fla.

Chalcis slossonae Crawford, 1910 (1909). Ent. Soc. Wash. Proc. 11: 205. ♂ ♀.

tachinae (Howard), n. comb. N. H., N. J. Host: *Melanoplus mexicanus mexicanus* (Sauss.).

Chalcis tachinae Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 8, 32, 36. ♀.

tegularis (Cresson). Ill., Tex., Wyo. Host: *Ceracia dentata* (Coq.).
Chalcis tegularis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 60. ♀.

Subfamily DIRHININAE

Revision: Burks, 1936. Natl. Acad. Sci. Proc. 22: 284–286.

Genus DIRHINUS Dalman

Dirhinus Dalman, 1818. Svenska Vetensk. Akad. Handl. 39: 75.
Type: *Dirhinus excavatus* Dalman. Monob.
Dirrhinus Dalman, 1823. Analecta Ent., p. 29. Emend.
Eniaca Kirby, 1883. Linn. Soc. London, Jour., Zool. 17: 54, 57.
Type: (*Chrysis*? *hesperidum* Rossi) = *Chalcis cornigera* Jurine. Monob.
Hontalia Cameron, 1884. Biol. Cent.-Amer., Hym., v. 1, p. 112.
Type: *Hontalia caerulea* Cameron. Orig. desig.
Pareniaca Crawford, 1913. U. S. Natl. Mus. Proc. 45: 312.
Type: *Pareniaca schwarzi* Crawford. Orig. desig.
Revision: Burks, 1947. Ent. Soc. Wash. Proc. 49: 136–140.

paolii Burks, emend. Ind.
Dirhinus paoli Burks, 1947. Ent. Soc. Wash. Proc. 49: 137. ♂.

perideus Burks. Ill.
Dirhinus perideus Burks, 1947. Ent. Soc. Wash. Proc. 49: 138. ♂.

schwarzi (Crawford). Tex., Ariz., Calif. Hosts: *Olycella junctolineella* (Hulst); *Melitara* sp.; dipterous larvae.
Pareniaca schwarzi Crawford, 1913. U. S. Natl. Mus. Proc. 45: 312. ♀.

texanus (Ashmead). N. C., Tenn., Ala., Tex., Kans. Hosts: Dipterous larvae; *Sarcophaga plinthopyga* Wied.
Eniaca texana Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 217. ♀.
Biology: Roberts, 1935. Jour. Agr. Res. 50: 481, 490–491.

Subfamily CHALCIDINAE

Revision: Burks, 1940. U. S. Natl. Mus. Proc. 88: 237–354.

Genus METADONTIA Ashmead

Metadontia Ashmead, 1888. Ent. Amer. 4: 87 (no species).
Type: (*Smicra montana* Ashmead) = *Chalcis amoena* Say. Included by Ashmead, 1904.
Plagiosmicra Cameron, 1904. Invertebrata Pacifica, v. 1, p. 56.
Type: (*Plagiosmicra ashmeadi* Cameron) = *Chalcis amoena* Say. Monob.
Revision: Burks, 1940. U. S. Natl. Mus. Proc. 88: 260–263.

amoena (Say). D. C. to Fla., Tex., and Kans.; Ariz., Calif. Hosts: *Strymon cecrops* (F.); *S. melinus* (Hbn.).
Chalcis amoena Say, 1836. Boston Jour. Nat. Hist. 1: 270.
Smicra montana Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 183. ♂.

Genus CHALCIS Fabricius

Chalcis Fabricius, 1789 (1787). Mantissa Insectorum, v. 1, p. 272.
Type: (*Chalcis sispes* Fabricius)=*Sphex myrifex* Sulzer. Desig. by Latreille, 1810.
Smiera Spinola, 1811. Paris Mus. Hist. Nat. Ann. 17: 147.
Type: (*Chalcis sispes* Fabricius)=*Sphex myrifex* Sulzer. Desig. by Ashmead, 1904.
Smicra Spinola, 1837. Mag. Zool. 7 Cl. IX, explan. pl. 180. Emend.
Revision: Burks, 1940. U. S. Natl. Mus. Proc. 88: 243–260.

barbara (Cresson). N. H., Conn., Mass., N. J.; Fla., Tex.; Ill. to N. Dak., Colo., Wyo. Host: *Odontomyia* sp.
Smicra barbara Cresson, 1872. Amer. Ent. Soc. Trans. 4: 47. ♂.
Smicra rufofemorata Cresson, 1872. Amer. Ent. Soc. Trans. 4: 39, 191. ♂.

canadensis (Cresson). Ont., N. Y., W. Va., Ill., Mich. Hosts: ?*Magdalis olyra* (Hbst.); *Odontomyia vertebrata* Say; *O.* sp.
Smicra canadensis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 39. ♂.

divisa (Walker). Kans., Okla., Ariz., Oreg.
Smiera divisa Walker, 1861. Jour. Ent. 1: 178. ♂ ♀.

flebilis (Cresson). Maine to N. J.; Ont., Ill., Minn.
Smicra flebilis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 39, 40. ♂.

lasia Burks. Calif.
Chalcis lasia Burks, 1940. U. S. Natl. Mus. Proc. 88: 248. ♂ ♀.

megalomis Burks. Ill., Colo.
Chalcis megalomis Burks, 1940. U. S. Natl. Mus. Proc. 88: 250. ♀.

microgaster Say. Ont., Pa., Ohio, Ill., Okla., Tex., Minn., Wis.
Chalcis microgaster Say, 1824. *In* Keating, Narr. Long's 2nd Exped., App. p. 326. ♂.

neptis Burks. Colo., N. Mex., Utah, Oreg., Wash.
Chalcis neptis Burks, 1940. U. S. Natl. Mus. Proc. 88: 251. ♂ ♀.

phoenicapoda Burks. Canada, Ga., Fla., Colo.
Smicra rufipes Kirby, 1883. Linn. Soc. London, Jour., Zool. 17: 70. Preocc.
Chalcis phoenicapoda Burks, 1940. U. S. Natl. Mus. Proc. 88: 257. ♀. N. name.

Genus SPILOCHALCIS Thomson

Spilochalcis Thomson, 1876 (1875). Hym. Scand., v. 4, p. 15.
Type: ***Chalcis xanthostigma*** Dalman. Monob.
Diplodontia Ashmead, 1888. Ent. Amer. 4: 87.
Type: (***Smicra carolina*** Ashmead)=***Chalcis nigricornis*** Fabricius. Desig. by Ashmead, 1904.
Eustypiura Ashmead, 1904. Carnegie Mus. Mem. 1: 251, 253, 412.
Type: ***Eustypiura bicolor*** Ashmead. Orig. desig.
Enneasmicra Ashmead, 1904. Carnegie Mus. Mem. 1: 252, 253, 449.
Type: ***Smicra exinaniens*** Walker. Orig. desig.
Octosmicra Ashmead, 1904. Carnegie Mus. Mem. 1: 252, 253, 450.
Type: ***Octosmicra laticeps*** Ashmead. Orig. desig.
Heptasmicra Ashmead, 1904. Carnegie Mus. Mem. 1: 252, 253, 451.
Type: ***Smicra obliterans*** Walker. Orig. desig.
Hexasmicra Ashmead, 1904. Carnegie Mus. Mem. 1: 252, 254, 454.
Type: ***Smicra transversa*** Walker. Orig. desig.
Pentasmicra Ashmead, 1904. Carnegie Mus. Mem. 1: 252, 254, 455.
Type: ***Pentasmicra brasiliensis*** Ashmead. Orig. desig.
Tetrasmicra Ashmead, 1904. Carnegie Mus. Mem. 1: 252, 254, 456.
Type: ***Smicra concitata*** Walker. Orig. desig.
Trismicra Ashmead, 1904. Carnegia Mus. Mem. 1: 252, 254, 456.
Type: ***Smicra contracta*** Walker. Monob.
Revision: Burks, 1940. U. S. Natl. Mus. Proc. 88: 243, 263–343.

albifrons (Walsh). Common throughout U. S.; Ont., B. C. Hosts: *Chalepus dorsalis* Thunb.; *Exema dispar* Lac.; *Hemerocampa leucostigma* (A. and S.); *Ancylis comptana* (Froel.); *A. comptana fragariae* (W. and R.); *A. divisana* Wlkr.; *Arogalea cristifasciella* (Chamb.); *Cremona cotoneaster* Busck; *Plutella maculipennis* (Curt.); *Argyresthia thuiella* (Pack.); *Coleophora fletcherella* Fern.; *C. laricella* (Hbn.); *C. malivorella* Riley; *C. pruniella* Clem.; *C. salmani* Heinr.; ?*Bedellia somnuleutella* Zell.; *Apanteles marginiventris* (Cress.); *A. militaris* (Walsh); *Gelis minimus* Walsh; borer in ragweed stem.
Chalcis albifrons Walsh, 1861. Ill. State Agr. Soc. Trans. 4: 364, 369.
Spilochalcis torvina ancylae Girault, 1920. U. S. Natl. Mus. Proc. 58: 192. ♂ ♀.
Biology: Beacher, 1947. Ent. Soc. Amer Ann. 40: 533–544.

apaiis Burks. Tex. Host: Microlepidopteron on *Lantana horrida.*
Spilochalcis apaiis Burks, 1940. U. S. Natl. Mus. Proc. 83: 315. ♀.

arcana (Cresson). Mass., Del., N. Dak., Colo.
Smicra arcana Cresson, 1872. Amer. Ent. Soc. Trans. 4: 44. ♂.
Smicra enausta Cresson, 1872. Amer. Ent. Soc. Trans. 4: 46. ♂.

bioculata (Cresson). Fla., Tex., Kans., Colo.
Smicra bioculata Cresson, 1872. Amer. Ent. Soc. Trans. 4: 43. ♂.
Smicra bioculata var. ***faceta*** Cresson, 1872. Amer. Ent. Soc. Trans. 4: 43. ♂.

clora Burks. Tex., Ark.
Spilochalcis clora Burks, 1940. U. S. Natl. Mus. Proc. 88: 306. ♂.

coxalis (Cresson). N. Y. to Ga.; Mo., Iowa.
Smicra coxalis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 45. ♂.
Spilochalcis virens Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 6 ♂.

delicata (Cresson). La., Tex.
Smicra delicata Cresson, 1872. Amer. Ent. Soc. Trans. 4: 54. ♀.

delumbis (Cresson). Widespread throughout U. S. and Canada. Hosts: *Ancylis comptana* (Froel.); *A. comptana fragariae* (W. and R.); *Anacampsis fragariella* Busck; *Chlamisus plicata* (F.); *Lema nigrovittata* (Guér.); *L. trilineata* (Oliv.).
Smicra delumbis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 40. ♂ ♀.
Biology: Chamberlin, 1933. Ent. Soc. Wash. Proc. 35: 106–107.

dema Burks. Ind., Mo., N. Mex. Host: *Frumenta nundinella* (Zell.).
Spilochalcis dema Burks, 1940. U. S. Natl. Mus. Proc. 88: 330. ♂ ♀.

dorsata (Cresson). N. C., Fla., Ill., Mo., Kans., Tex.
Smicra dorsata Cresson, 1872. Amer. Ent. Soc. Trans. 4: 49. ♀.
Spilochalcis missouriensis Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 6. ♀.

elachis Burks. Fla.
Spilochalcis elachis Burks, 1940. U. S. Natl. Mus. Proc. 88: 294. ♀.

enocki Ashmead. La.
Spilochalcis enocki Ashmead, 1904. Carnegie Mus. Mem. 1: 439. ♀.

eubule (Cresson). Ga.
Smiera Eubule Cresson, 1865. Ent. Soc. Phila. Proc. 4: 93.

exornata (Cresson). Tex. Host: ?*Mimorista flavidissimalis* (Grote).
Smicra exornata Cresson, 1872. Amer. Ent. Soc. Trans. 4: 50. ♂.

femorata (Fabricius). Ga., Fla., Tex.
Crabro femoratus Fabricius, 1775. Systema Ent., p. 375.
Smiera ignea Cresson, 1865. Ent. Soc. Phila. Proc. 4: 92.
Smicra mirabilis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 53. ♂.

flammeola (Cresson). Tex.
Smicra flammeola Cresson, 1872. Amer. Ent. Soc. Trans. 4: 48. ♂ ♀.

flavopicta (Cresson). N. Y. to Fla., Tex., Kans. and Ill.; Colo., N. Mex., Ariz., Calif., Oreg. Hosts: *Anthonomus grandis* Boh.; *Celama sorghiella* (Riley); *Phalonia* sp.; *Acrobasis* sp.; *Homoeosoma electellum* (Hulst); *Eurukuttarus confederata* (Grote); *Ancylis comptana* (Froel.); ?*Epiblema scudderiana* (Clem.); ?*E. tripatitiana* (Zell.); *Rhyacionia frustrana* (Comst.); *Argyrotaenia velutinana* (Wlkr.); *Sparganothis sulfuriana* (Clem.); *Anacampsis fragariella* Busck.; *Meteorus laphygmae* Vier.
Smiera flavopicta Cresson, 1865. Ent. Soc. Phila. Proc. 4: 99.
Smicra delira Cresson, 1872. Amer. Ent. Soc. Trans. 4: 41. ♂.
Smicra decem-punctata Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. xxix. ♀.
Smicra mendica Cresson. 1872. Amer. Ent. Soc. Trans. 4: 41. ♂.
Biology: Reinhard, 1938. Tex. Agr. Expt. Sta. Bul. 559: 31–32.—Underhill, 1943. Va. Agr. Expt. Sta. Bul. 349: 12.—Needham, 1948. Ecol. Monog. 18: 446.

hirtifemora (Ashmead). D. C., N. C., Ga., Fla., Tenn., Ohio, Ill., Tex. Hosts: *Mesogramma polita* (Say); *M. polygonastyla* (Metc.); *Platychirus* sp.;

Apanteles marginiventris (Cress.); *A.* sp.
Smicra hirtifemora Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. x. ♂.

igneoides (Kirby). N. H. to Fla.; Ind., Ill., S. Dak., Kans., Okla., Tex., N. Mex. Calif., Mont., Alta. Hosts: *Heliothis armigera* (Hbn.); *Laphygma frugiperda* (A. and S.); *Mineola indigenella* (Zell.); *Gretchena deludana* (Clem.); *Eurukuttarus confederata* (Grote).
Smicra igneoides Kirby, 1883. Linn. Soc. London Jour., Zool. 17: 71.
Smicra vittata Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. x. ♀.
Spilochalcis mesillae Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 403. ♀.

juxta (Cresson). Md., Ill., Kans., Tex.
Smicra juxta Cresson. 1872. Amer. Ent. Soc. Trans. 4: 54. ♀.

lanieri (Guérin). Fla.
Chalcis Lasnierii Guérin, 1845. Iconogr. Règne Anim. Ins., p. 412.
Chalcis lanieri Guérin, 1857. *In* de la Sagra, Hist. Fis. Polit. y Nat. Cuba v. 7, p. 753. Emend.

lecta (Cresson). Tex.
Smicra lecta Cresson, 1872. Amer. Ent. Soc. Trans. 4: 44. ♂ ♀.

leptis Burks. Calif., Nev., Idaho. Hosts: *Ancylis comptana* (Froel.); *Spilonota ocellana* (D. and S.); *Archips argyrospila* (Wlkr.); *Zelleria haimbachi* Busck
Spilochalcis leptis Burks, 1940. U. S. Natl. Mus. Proc. 88: 340. ♂ ♀.

maria (Riley). East. and Cent. U. S.; Ariz. Hosts: *Callosamia promethea* (Drury); *Philosamia cynthia* (Drury); *Rothschildia* sp.; *Samia cecropia* (L.); *Telea polyphemus* (Cram.); *Thytidopteryx ephemeraeformis* (Haw.).
Chalcis maria Riley. 1870. Amer. Ent. 2: 101. ♂ ♀.
Chalcis mariae Riley, 1872. Mo. State Bd. of Agr. Ann. Rpt. 7: 109. 123. Emend.
Biology: Schaffner and Griswold, 1934. U. S. Dept. Agr. Misc. Pub. 188: 26, 152.

melana Burks. Ill.
Spilochalcis melana Burks, 1940. U. S. Natl. Mus. Proc. 88: 316. ♂ ♀.

nigricornis (Fabricius). N. H. to S. C.; Ind., Ill., La., Tex., Nebr., S. Dak., N. Dak. Hosts: *Adoneta spinuloides* (H.-S.); *Limacodes* sp.; *Parasa indetermina* (Bdvl.).
Chalcis nigricornis Fabricius, 1798. Sup. Ent. System. p. 243.
Chalcis bracata Sanborn, 1863 (1862). Mass. Bd. Agr. Rpt. 10: 172. ♀.
Smicra bracata coaequalis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 46. ♂.
Smicra carolina Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 183. ♂.
Diplodontia secunda Girault, 1917. Descr. Hym. Chalcidoid. Variorum cum Observ. V, p. 10. ♀.
Taxonomy: Girault, 1920. U. S. Natl. Mus. Proc. 58: 194. ♀.

nortonii (Cresson). N. Y. to N. C., Ill. ,Tex. Hosts: *Limacodes* sp.; *Phobetron pithecium* (A. and S.); *Prolimacodes badia* (Hbn.).
Smicra Nortonii Cresson, 1872. Amer. Ent. Soc. Trans. 4: 45. ♂.

odontotae Howard. N. J., D. C., N. C. Host: *Chalepus dorsalis* Thunb.
Spilochalcis odontotae Howard, 1885. U. S. Dept. Agr. Bur. Ent. Bul. 5: 7, 32. ♂.
Biology: Chittenden, 1902. U. S. Dept. Agr. Div. Ent. Bul. 38: 82.

pallens (Cresson). S. C., Tex. Hosts: *Apanteles marginiventris* (Cress.); *Meteorus laphygmae* Vier.; *Rogas laphygmae* Vier.
Smiera palens Cresson, 1865. Ent. Soc. Phila. Proc. 4: 96.
Smiera pallens Cresson, 1865. Ent. Soc. Phila. Proc. 4: 196. Emend.
Biology: Vickery, 1929. U. S. Dept. Agr. Tech. Bul. 138: 21, 32–35, 50–52, 58.

pallipes (Smith). Fla., Minn. Host: *Archips semiferana* (Wlkr.).
Chalcis flavipes Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. xi. ♂. Preocc.
Chalcis pallipes Smith, 1886. Ent. Amer. 2: 19. N. name.
Chalcis pallidipes Dalla Torre, 1898. Cat. Hym., v. 5, p. 391. Emend.

phais Burks. Tex. Host: ?Citheroniid.
Spilochalcis phais Burks, 1940. U. S. Natl. Mus. Proc. 88: 307. ♂ ♀.

phoenica Burks. Tex. Host: *Chlosyne lacinia crocale* (Edw.).
Spilochalcis phoenica Burks, 1940. U. S. Natl. Mus. Proc. 88: 278. ♂ ♀.

sanguiniventris (Cresson). Va., N. C., Ga., Fla., Tex. Hosts: *Exema conspera* (Mann.); ?*Prodenia eridania* (Cram.).
Smicra sanguiniventris Cresson, 1872. Amer. Ent. Soc. Trans. 4: 36, 43. ♀.
Smicra sanguineiventris Dalla Torre, 1898. Cat. Hym., v. 5, p. 381. Emend.

side (Walker). Throughout U. S. and Canada. Hosts: *Hypera nigrirostris* (F.); *H. rumicis* (L.); *Rhynchaenus pallicornis* (Say); *Laphygma frugiperda* (A. and S.); *Hulstia undulatella* (Clem.); *Ancylis comptana* (Froel.); *A. divisana* (Wlkr.); *Grapholitha molesta* (Busck); *Argyrotaenia velutinana* (Wlkr.) *Anarsia lineatella* Zell.; *Exoteleia pinigoliella* (Chamb.); *Recurvaria piceaella* Kearf.; *Plutella maculipennis* (Curt.); *Argyresthia thuiella* Pack.; *Choreutis silphiella* Grote; *Coleophora fletcherella* Fern.; *C. laricella* (Hbn.); *C. malivorella* Riley; *C. pruniella* Clem.; *C. salmani* Heinr.; *Bucculatrix thurberiella* Busck; *Apanteles congregatus* (Say); *S. melanoscelus* (Ratz.); *A. militaris* (Walsh); *Meteorus laphygmae* Vier.; *M. versicolor* (Wesm.); *Campoletis argentifrons* (Cress.); *Horogenes insularis* (Cress.); *H. plutellae* (Vier.).
Smiera side Walker, 1843. Soc. Ent. France Ann. (2) 1: 145. ♀.
Smicra torvina Cresson 1872. Amer. Ent. Soc. Trans. 4: 40. ♀.
Biology: Vickery, 1929. U. S. Dept. Agr. Tech. Bul. 138: 21, 32–33, 52–53, 58.—Doner, 1936. Ent. Soc. Amer. Ann. 29: 234.

subobsoleta (Cresson). N. Dak. to Ill., Tex. and Mont.
Smicra subobsoleta Cresson, 1872. Amer. Ent. Soc. Trans. 4: 42. ♂.

tanais Burks. Tex., Calif. Host: *Gnorimoschema* sp.
Spilochalcis tanais Burks, 1940. U. S. Natl. Mus. Proc. 88: 309. ♂ ♀.

transitiva (Walker). Ga., Fla.
Smiera transitiva Walker, 1862. Ent. Soc. London Trans. (3) 1: 371. ♀.
Smiera pulchra Cresson, 1865. Ent. Soc. Phila. Proc. 4: 94.

xantha Burks. Tex., N. Mex., Ariz.
Spilochalcis xantha Burks, 1940. U. S. Natl. Mus. Proc. 88: 320. ♀.

xanthostigma (Dalman). Ont. Host: *Coleophora laricella* (Hbn.).
Chalcis xanthostigma Dalman, 1820. Svenska Vetensk. Akad. Handl. 41: 141.
Taxonomy: Graham, 1944. Ent. Soc. Ontario Ann. Rpt. 74: 49.

Genus CERATOSMICRA Ashmead

Sayiella Ashmead, 1904. Carnegie Mus. Mem. 1: 251, 253. Preocc.
Type: ***Smicra debilis*** Say. Monob.
Ceratosmicra Ashmead, 1904. Carnegie Mus. Mem. 1: 251, 253.
Type: ***Ceratosmicra petiolata*** Ashmead. Monob.
Mischosmicra Ashmead, 1904. Carnegie Mus. Mem. 1: 251, 253.
Type: ***Mischosmicra kahlii*** Ashmead. Monob.
Melanosmicra Ashmead, 1904. Carnegie Mus. Mem. 1: 251, 253, 447.
Type: ***Melanosmicra immaculata*** Ashmead. Orig. desig.
Eusayia Ashmead, 1904. Ent. Soc. Wash. Proc. 6: 126. N. name.
Revision: Burks, 1940. U. S. Natl. Mus. Proc. 88: 343–351.

debilis (Say). R. I. to Minn. and Kans.; Fla., Iowa, and Tex. Hosts: *Apanteles delicatus* How.; *A. hyphantriae* Riley; *A. melanoscelus* (Ratz); *Meteorus hyphantriae* Riley; *Casinaria limenitidis* How.
Chalcis debilis Say, 1836. Boston Jour. Nat. Hist. 1: 271.
Smicra longipetiola Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. p. x. ♂.
Mischosmicra Kahlii Ashmead, 1904. Carnegie Mus. Mem. 1: 250, 381. ♀.

immaculata (Cresson). Tex. Host: *Meteorus* sp.
Smiera immaculata Cresson, 1865. Ent. Soc. Phila. Proc. 4: 97.

meteori Burks. N. Y. and Mass. to N. C., Tenn. and Ill.; La., Tex. Hosts: *Laphygma frugiperda* (A. and S.); *Apanteles delicatus* How.; *A.* sp.; *Meteorus hyphantriae* Riley; *M.* sp.; *Casinaria limenitidis* How.
Ceratosmicra meteori Burks, 1940. U. S. Natl. Mus. Proc. 88: 346. ♂ ♀.

paya Burks. Ill., Kans., Tex., Calif. Host: *Oidaematophorus paleaceus* (Zell.).
Ceratosmicra paya Burks, 1940. U. S. Natl. Mus. Proc. 88: 348. ♂ ♀.

Family LEUCOSPIDAE

Revision: Weld 1922. U. S. Natl. Mus. Proc. 61 (6): 1–43.

Genus LEUCOSPIS Fabricius

Leucospis Fabricius, 1775. Syst. Ent., p. 361.
Type: *Leucospis dorsigera* Fabricius. Monob.
Coelogaster Schrank, 1780. Schrift. Gesell. Naturf. Freunde Berlin 1: 303 (no species).
Type: (*Coelogaster passavianus* Schrank)=*Leucospis dorsigera* Fabricius. Included by Foerster, 1782.
Leucaspis Burmeister, 1835. Arch. f. Naturgesch. 1 (2): 47. Emend.
Exochlaenus Shipp, 1894. Ent. Monthly Mag. 30: 245.
Type: *Leucospis anthidioides* Westwood. Monob.
Micrapion Kriechbaumer, 1894. Berlin. Ent. Ztschr. 39: 315.
Type: *Micrapion bilineatum* Kriechbaumer. Monob.
Parexoclaenus Girault, 1915. Queensland Mus. Mem. 4: 355.
Type: *Parexoclaenus vespoides* Girault. Monob.
Exoclaenoides Girault, 1915. Queensland Mus. Mem. 4: 356.
Type: *Exoclaenoides unicinctus* Girault. Monob.
Revision: Weld, 1922. U. S. Natl. Mus. Proc. 61 (6): 1–43.

affinis affinis Say. Widespread in Canada and U. S. Hosts: *Ecdytolopha insiticiana* Zell.; *Anthidium emarginatum* (Say); *Dianthidium pudicum consimile* (Ashm.); *Megachile brevis* Say; *M. montivaga* Cress.; *Osmia atriventris* Cress.; *O. pumila* Cress.; *O. simillima* Smith.
Leucospis affinis Say, 1824. *In* Keating, Narr. Long's 2nd Exped., App. p. 327. ♂ ♀.
Leucospis subnotata Westwood, 1834. Ent. Mag. 2: 215. ♀.
Leucospis fraterna Say, 1836. Boston Jour. Nat. Hist. 1: 269. ♂ ♀.
Leucospis basalis Westwood, 1839. Ztschr. f. Ent. 1: 251. ♂ ♀.
Leucospis Canadensis Walker, 1860. Jour. Ent. 1: 17. ♂.
Leucospis bicincta Viereck, 1906. Amer. Ent. Soc. Trans. 32: 227. ♂.
Biology: Graenicher, 1906. Wis. Nat. Hist. Soc. Bul. 4: 153–159.
Morphology: Snodgrass, 1910. U. S. Natl. Mus. Proc. 39: 65.

affinis *floridana* (Cresson). Mass., Fla.
Leucospis affinis var. *floridana* Cresson, 1872. Amer. Ent. Soc. Trans. 4: 33. ♂ ♀.

birkmani Brues. Tex.
Leucospis birkmani Brues, 1925. Psyche 32: 23. ♀.

robertsoni Crawford. Fla.
Leucospis robertsoni Crawford, 1909. Ent. Soc. Wash. Proc. 11: 51. ♂ ♀.

slossonae Weld. Ga., Fla.
Leucospis slossonae Weld, 1922. U. S. Natl. Mus. Proc. 61 (6): 11. ♂ ♀.

texana Cresson. N. C., Ga., Tex.
Leucospis texana Cresson, 1872. Amer. Ent. Soc. Trans. 4: 31, 191. ♂.

Unplaced Genera

Hoplocrepis Ashmead, 1890. Ent. Soc. Wash. Proc. 1: 235.
Type: *Hoplocrepis albiclavus* Ashmead. Monob. and orig. desig.

Lophocomodia Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. VI.
Type: *Lophocomodia americana* Ashmead. Monob.

Pteratomus Packard, 1866. Essex Inst. Proc. 4: 137.
Type: *Pteratomus putnamii* Packard. Monob.

Unplaced Species

Entedon antiopae Packard, 1881. Boston Soc. Nat. Hist. Proc. 21: 36. ♂.

Stenomesius? aphidicola Ashmead, 1880. Orange Insects, p. 67. ♂ ♀.

Smicra Bimaculatas (!) Strecker, 1878. War Dept. U. S. Ann. Rpt. for 1878, v. 2, pt. 3, p. 1848.

Caccophagus (!) **brunneus** Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 205.—***Coccophagus bruneus*** Dalla Torre, 1898. Cat. Hym., v. 5, p. 224, emend.

Camptotera (!) **clavata** Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 404. ♂ ♀.

Entedon coquillettii Riley, 1889. U. S. Dept. Agr. Ann. Rpt. for 1888, p. 86.

Stinoplus cyaneus Ashmead, 1894. Amer. Ent. Soc. Trans. 21: 338. ♂.

Semiotellus fasciatus Provancher, 1881. Nat. Canad. 12: 294. ♂ ♀.

Trichogramma flavus Ashmead, 1880. Orange Insects, p. 33. ♀.

Encyrtus Gastron Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 21. ♀.

Eulophus Gobryas Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 26. ♂.

Entedon Imbrasus Walker, 1847. Ann. Mag. Nat. Hist. 20: 23. ♀.

Leucospis integra Haldeman, 1844. Acad. Nat. Sci. Phila. Proc. 2: 53. ♂.

Perilampus laevis Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 199.—***Perilampus levis*** Dalla Torre, 1898. Cat. Hym., v. 5, p. 355, emend.

Semiotellus minimus Provancher, 1881. Nat. Canad. 12: 295. ♀.

Eulophus Minyas Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 26. ♀.

Cricellius megachilis Ashmead, 1897. South. Calif. Acad. Sci. Proc. 1 (3): 6. ♂ ♀.

Pteromalus nigricornis Provancher, 1881. Nat. Canad. 12: 297. ♀.

Semiotellus oblongus Provancher, 1881. Nat. Canad. 12: 295. ♀.

Eurytoma orbiculata Say, 1836. Boston Jour. Nat. Hist. 1: 272.

Pteratomus Putnamii Packard, 1864. Essex Inst. Proc. 4: 138. ♂.

Eulophus ramosus Provancher, 1881. Nat. Canad. 12: 297. ♂ ♀.

Encyrtus Reate Walker, 1847. Ann. Mag. Nat. Hist. (1) 20: 22. ♂.

Trigonoderus varipes Viereck, 1903. Amer. Ent. Soc. Trans. 29: 75. ♀.

Superfamily CYNIPOIDEA[18]

Revision: Dalla Torre and Kieffer, 1910. Cynipidae, Das Tierreich, vol. 24. This is the latest monograph of the species of the world. It closed with the literature of 1905.

Family IBALIIDAE

Subfamily IBALIINAE

Genus IBALIA Latreille

Ibalia Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 306.
Type: (***Ophion cultellator*** Fabricius)=***Ichneumon leucospoides*** Hochenwarth. Monob.

Sagaris Panzer, 1806. Krit. Rev. Insektenf. Deutschlands, v. 2, p. 91.
Type: ***Ophion cultellator*** Fabricius. Monob.

Parasitic on Siricidae.

[18] By L. H. Weld, Falls Church, Va.

anceps Say. Ark., Minn.
Ibalia anceps Say, 1824. *In* Keating, Narr. Long's 2nd Exped., App., p. 325. ♀.

ensiger Norton. Transcont. Host: Siricidae in conifers.
Ibalia ensiger Norton, 1862. Ent. Soc. Phila. Proc. 1: 200. ♀.

maculipennis Haldeman. East. U. S., Ont., Que. Host: *Tremex columba* (L.)
Ibalia maculipennis Haldeman, 1846. Acad. Nat. Sci. Phila. Proc. 3: 127. ♀.
Ibalia fasciipennis Kieffer, 1909. Soc. Hist. Nat. Metz Bul. 26: 57. ♀.

montana Cresson. Colo., Oreg., Wash., Labrador.
Ibalia montana Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. xvii. ♀.

rufipes Cresson. Nev.
Ibalia rufipes Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. xvii. ♀.

scalpellator Westwood. Ga.
Ibalia scalpellator Westwood, 1837. *In* Guérin, Mag. d. Zool. 7: Cl. 9, pl. 179. fig. 2. ♂.
Taxonomy: Probably a synonym of *maculipennis* Haldeman.

Family LIOPTERIDAE

Subfamily MESOCYNIPINAE

Mostly exotic. Habits unknown.

Genus PARAMBLYNOTUS Cameron

Paramblynotus Cameron, 1908. Entomologist 41: 299.
Type: *Paramblynotus punctulatus* Cameron. Desig. by Rohwer and Fagan, 1917.
Allocynips Kieffer, 1914. Philippine Jour. Sci. 9 D: 185. Luzon.
Type: *Allocynips ruficeps* Kieffer. Monob.
Mayrella Hedicke, 1922. Deut. Ent. Ztschr., p. 190. Formosa. N. syn.
Type: *Mayrella formosana* Hedicke. Monob.

zonatus Weld. Tex.
Paramblynotus zonatus Weld, 1944. Ent. Soc. Wash. Proc. 46: 56, fig. 2. ♀.

Genus KIEFFERIELLA Ashmead

Kiefferia Ashmead, 1903. Psyche 10: 10. Preocc.
Type: *Kiefferia rugosa* Ashmead. Monob.
Kiefferiella Ashmead, 1903. Ent. Soc. Wash. Proc. 5: 221. N. name.

rugosa (Ashmead). Calif. (Santa Cruz Mts.).
Kiefferia rugosa Ashmead, 1903. Psyche 10: 10.
Taxonomy: Weld, 1921. U. S. Natl. Mus. Proc. 59: 435, ♀.

Family FIGITIDAE

Subfamily ASPICERATINAE

Parasites in the puparia of Syrphidae.

Genus PARASPICERA Kieffer

Paraspicera Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 152.
Type: *Paraspicera bakeri* Kieffer. Monob.

bakeri Kieffer. Wis., Ill., Md., D. C.
Paraspicera bakeri Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 152. ♂.
Taxonomy: Weld, 1944. Ent. Soc. Wash. Proc. 46: 57, ♀.

clarimontis (Kieffer), n. comb. Calif.
Aspicera clarimontis Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 152. ♀.

utahensis (Ashmead), n. comb. Utah.
Aspicera utahensis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 183. ♀.

Genus PROSASPICERA Kieffer

Prosaspicera Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 152.
Type: *Prosaspicera ensifera* Kieffer. Desig. by Rohwer and Fagan, 1917.

albihirta (Ashmead), n. comb. Fla.
Aspicera albihirta Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 156. ♀.

similis (Ashmead), n. comb. Fla., Ark., Pa.
Aspicera similis Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 156. ♀.
Aspicera albinervis Kieffer, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 4: 337. ♂ ♀. N. syn.

Genus CALLASPIDIA Dahlbom

Callaspidia Dahlbom, 1842. Onychia och Callaspidia, p. 10.
Type: *Callaspidia De fonscolombei* Dahlbom. Desig. by Rohwer and Fagan, 1917.

provancheri Ashmead. Maine, N. H., Mass., N. Y., Conn., Pa., Ind., Ill., Mich., Wis., Idaho, Que.
Callaspidia provancheri Ashmead, 1887. *In* Provancher, Addit. Corr. Faune Ent. Canada Hym., p. 167. ♀.

Subfamily ANACHARITINAE

Parasitic in the cocoons of lace-wing flies: *Chrysopa, Sympherobius, Hemerobius.*

Genus XYALASPIS Hartig

Xyalaspis Hartig, 1843. Germar Ztschr. f. Ent. 4: 416.
Type: *Xyalaspis laevigata* Hartig. Monob.
Conaspicera Hedicke, 1914. Nyt. Mag. Nat. Kristiana 52: 354.
Type: (*Conaspicera norvegica* Hedicke)=*Xyalaspis subulifera* Thomson, 1861.

flavipes Ashmead. Md., Va.
Xyalaspis flavipes Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 183. ♂.

microstyla Kieffer. Ala.
Xyalaspis microstyla Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 151. ♂.

Genus ACOTHYREUS Ashmead

Acothyreus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 157.
Type: *Acothyreus osceola* Ashmead. Monob.

osceola Ashmead. Fla.
Acothyreus osceola Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 157. ♂.

mellipes Provancher. Que.
Acothyreus mellipes Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 438. ♀.

Genus ANACHARIS Dalman

Anacharis Dalman, 1823. Anal. Ent., p. 96.
Type: *Cynips eucharoides* Dalman. Monob.
Megapelmus Hartig, 1839 (1840). Germar Ztschr. f. Ent. 2: 186.
Type: (*Megapelmus spheciformis* Hartig)=*Anacharis typica* Walker. Monob.

flavicornis Kieffer. Wis.
Anacharis flavicornis Kieffer, 1909. Soc. Hist. Nat. Metz Bul. 26: 80. ♂.

lamyi Cockerell. N. Mex.
Anacharis mexicana Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 184. ♀. Preocc.
Anacharis lamyi Cockerell, 1899. Kans. Acad. Sci. Trans. 16: 213. N. name.
Anacharis ashmeadi Dalla Torre and Kieffer, 1902. *In* Wytsman, Gen. Ins., fasc. 9, Cynipidae, p. 141. N. name. (Unnecessarily proposed).

levifrons Kieffer. Pa.
Anacharis levifrons Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 143. ♀.

marginata Provancher. Que. (Cap Rouge).
Anacharis marginata Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 168. ♂.

melanoneura Ashmead. Fla., Ga., La., Tex., S. C., Va.
Anacharis melanoneura Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 158. ♂.

pediculata Provancher. Ont. (Ottawa).
Anacharis pediculata Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 169. ♂.

punctatifrons Kieffer. Calif.
Anacharis punctatifrons Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 143. ♀.
Taxonomy: Kieffer, 1908. Soc. Sci. Bruxelles Ann. 32: 64, ♂.

subcompressa (Provancher). Que., Ill., Iowa.
Eucoila subcompressa Provancher, 1881. Nat. Canad. 12: 237. ♀.

tripartita Kieffer. Calif.
Anarcharis tripartita Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 143. ♀.

Genus HEXACHARIS Kieffer

Hexacharis Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 142.
Type: *Hexacharis flavipes* Kieffer. Monob.

flavipes Kieffer. Colo.
Hexacharis flavipes Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 142. ♂.

Genus AEGILIPS Walker

Aegilips Walker, 1835. Ent. Mag. 3: 160.
Type: *Cynips nitidula* Dalman, 1823. Desig. by Westwood, 1840.

aciculatus Provancher. Canada.
Aegilips aciculatus Provancher, 1881. Nat. Canad. 12: 239. ♂ ♀.

clarimontis Kieffer. Calif. Host: *Chrysopa californica* Coq.
Aegilips clarimontis Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 143. ♀.

nevadensis Kieffer. Nev.
Aegilips nevadensis Kieffer, 1908. Soc. Sci. Bruxelles, Ann. 32: 63. ♂.

obtusilobae Osten Sacken. D. C.
Aegilips (?) *obtusilobae* Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 68. ♀.

reticulata Kieffer. Calif.
Aegilips reticulata Kieffer, 1908. Soc. Sci. Bruxelles, Ann. 32: 63. ♂.

rugata Kieffer. Colo.
Aegilips rugata Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 144. ♀.

trisecta Kieffer. Wis.
Aegilips trisecta Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 143. ♂.

victoriae Ashmead. B. C. (Victoria).
Aegilips victoriae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 184. ♀.

Subfamily FIGITINAE

Parasitic in the puparia of Diptera.

Genus NERALSIA Cameron

Neralsia Cameron, 1883. Biol. Centr.-Amer., Hym., v. 1, p. 74.
Type: ***Neralsia rufipes*** Cameron. Monob.
Solenaspis Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 155. Preocc.
Type: ***Solenaspis hyalinipennis*** Ashmead. Monob.
Xyalosema Dalla Torre and Kieffer, 1910. Das Tierreich, v. 24, p. 94. N. name.

armata (Say). East. and middle U. S. Hosts: *Sarcophaga bullata* Parker; *S. plinthopyga* Wied.
Diplolepis armatus Say, 1836. Boston Jour. Nat. Hist. 1: 266. ♂.
Biology: Roberts, 1935. Jour. Agr. Res. 50 (6): 487–488.

hyalinipennis (Ashmead). Fla. to Va. Reported on human excrement.
Solenaspis hyalinipennis Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 155. ♀.
Xyalosema dubiosa Kieffer, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 4: 338. ♂ ♀.

nigriventris (Kieffer), n. status. Nev.
Xyalophora impatiens var. ***nigriventris*** Kieffer, 1908. Soc. Sci. Bruxelles Ann. 32: 64. ♂.

Genus XYALOPHORA Kieffer

Xyalophora Kieffer, 1901. Soc. Ent. France Bul., p. 344.
Type: ***Figites clavatus*** Giraud. Orig. desig.

leviventris Kieffer. Colo.
Xyalophora leviventris Kieffer, 1908. Soc. Sci. Bruxelles, Ann. 32: 64. ♂.

quinquelineata (Say). Transcont. in Transit. zone. Host: *Sarcophaga* sp.
Diplolepis 5-lineata Say, 1836. Boston Jour. Nat. Hist. 1: 267. ♀.
Xyalophora armata var. ***nigricornis*** Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 157. ♂ ♀. N. syn.

singularis (Ashmead). Ill.
Solenaspis singularis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 183. ♂ ♀.

Genus PARASCHIZA Weld

Paraschiza Weld, 1944. Ent. Soc. Wash. Proc. 46: 58.
Type: ***Paraschiza cupressana*** Weld. Monob.

cupressana Weld. Calif. "Taken from holes of *Citellus* in mushrooms."
Paraschiza cupressana Weld, 1944. Ent. Soc. Wash. Proc. 46: 58. ♀.

Genus LONCHIDIA Thomson

Lonchidia Thomson, 1861. Öfvers. Svenska Vetensk.-Akad. Forh. 18: 413.
Type: ***Figites maculipennis*** Dahlbom. Desig. by Foerster, 1869.

hirta Provancher. Que. (Cap Rouge).
Lonchidia hirta Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 170. ♀.

Genus MELANIPS Walker

Melanips Walker, 1835. Ent. Mag. 3: 161. No species. Giraud, 1860. Zool.-Bot. Gesell. Wien, Verh. 10: 163.
Type: ***Scytodes opacus*** Hartig. Desig. by Foerster, 1869.
Scytodes Hartig, 1839 (1840). Germar Ztschr. f. Ent. 2: 187, 202. Preocc.
Type: ***Scytodes opacus*** Hartig. Desig. by Rohwer and Fagan, 1917.
Amblynotus Hartig, 1843. Germar Ztschr. f. Ent. 4: 449. N. name.

bilineatus (Kieffer), n. comb. Idaho, Wash.
Amblynotus bilineatus Kieffer, 1909. Soc. Hist. Nat. Metz Bul. 26: 82. ♀.

coxalis (Kieffer), n. status. Nev., Calif.
Amblynotus jowensis (!) var. ***coxalis*** Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 161. ♂ ♀.

coxalis var. **dipterorum** (Kieffer), n. comb. Ark.
Amblynotus coxalis var. *dipterorum* Kieffer, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 4: 339. ♂.

iowensis Ashmead. Iowa.
Melanips iowensis Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 158. ♂ ♀.

semirugosus (Crawford), n. comb. N. Y. (Adirondack Mts.).
Amblynotus semirugosus Crawford, 1917. Ent. Soc. Wash. Proc. 19: 172. ♀.

slossonae (Crawford), n. comb. N. H. (Mt. Washington).
Amblynotus slossonae Crawford, 1917. Ent. Soc. Wash. Proc. 19: 171. ♀.

Genus SAROTHRUS Hartig

Sarothrus Hartig, 1839 (1840). Germar Ztschr. f. Ent. 2: 187.
Type: (*Sarothrus canaliculatus* Hartig)=[*Cynips*] *tibialis* Zetterstedt. Desig. by Foerster, 1869.
Amphithectus Hartig, 1839 (1840). Germar Ztschr. f. Ent. 2: 203.
Type: (*Amphithectus dahlbomii* Hartig)=*Sarothrus areolatus* Hartig. Monob.

californicus Kieffer. Calif.
Sarothrus californicus Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 161. ♂ ♀.

canadensis Kieffer. Ont., Colo.
Sarothrus canadensis Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 161. ♀.

nasoni Ashmead. Ill. (Algonquin).
Sarathrus (!) *nasoni* Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 182. ♀.

Genus TRISCHIZA Foerster

Trischiza Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 364, 367.
Type: *Figites agaricolarum* Dahlbom. Monob.
Figitodes Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 150.
Type: *Figitodes atricornis* Ashmead. First included species.

atricornis (Ashmead). N. Mex. (Santa Fé).
Figitodes atricornis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 182. ♀.

leviventris Kieffer. Nev. (Ormsby Co.).
Trischiza leviventris Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 161. ♂.

Genus ZYGOSIS Foerster

Zygosis Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 363, 365.
Type: (*Figites urticeti* Dahlbom)=[*Psilogaster*] *heteropterus* Hartig. Monob.
Diceraea Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 364, 367.
Type: *Figites urticeti* Dahlbom. Monob.
Thyreocera Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 154. N. syn.
Type: (*Thyreocera nigrifemora* Ashmead)=[*Figites*] *laeviscutum* Provancher. Monob.

laeviscutum (Provancher), n. comb. Que. (Cap Rouge).
Figites laeviscutum Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 170. ♂ ♀.
Thyreocera nigrifemora Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 155. ♀.

Genus FIGITES Latreille

Figites Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 307.
Type: *Cynips scutellaris* Rossi. Desig. by Latreille, 1810.
Psilogaster Hartig, 1839 (1840). Germar Ztschr. f. Ent. 2: 187.
Type: *Psilogaster anthomyiarum* Bouché. Desig. by Rohwer and Fagan, 1917.
Pychnotrichia Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 363, 366.
Type: *Pychnotrichia erythropa* Foerster. Orig. desig.
Omalaspoides Hedicke, 1913. Ent. Mitt. 2: 146.

Type: (*Omalaspoides letzneri* Hedicke)=[*Cynips*] *scutellaris* Rossi. Orig. desig.

Seitneria Tavares, 1928. Brotéria, Rev. Luso-Brazil. Ser. Zool. 25: 5. N. syn.
Type: *Seitneria austriaca* Tavares. Monob.

albinervis Kieffer. Wis. (Polk Co.).
Figites albinervis Kieffer, 1909. Soc. Hist. Nat. Metz Bul. 26: 82. ♂.

coloradensis Ashmead. Colo. (West Cliff).
Figites coloradensis Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 12, 38. ♀.

consobrinus Giraud. Europe; D. C., Va. Host: *Sarcophaga* sp.
Figites consobrinus Giraud, 1860. Zool.-Bot. Gesell. Wien, Verh. 10: 153. ♂ ♀.

floridanus Ashmead. Fla. (Jacksonville).
Figites floridanus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 155. ♀.

floridanus var. **dubius** Kieffer. Pa., Ark.
Figites dubius Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 161. ♂.
Figites floridanus var. *dubius* Kieffer, 1910. Lab. Zool. Gen e Agr. Portici Bol. 4: 339. ♂.

floridensis Weld. Fla., Ala., Tex., N. Y., Va.
Omalaspis floridanus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 155. ♂. Preocc.
Figites floridensis Weld, 1944. Ent. Soc. Wash. Proc. 46: 62. ♀. N. name.

impatiens Say. Ind.
Figites impatiens Say, 1836. Boston Jour. Nat. Hist. 1: 258. ♀.

inermis (Provancher). Que. (Cap Rouge).
Onychia inermis Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 171. ♂.

parvulus Kieffer. Colo.
Figites parvulus Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 161. ♂.

popenoei Crawford. D. C.
Figites popenoei Crawford, 1915. U. S. Natl. Mus. Proc. 48: 582. ♂ ♀.

Family CYNIPIDAE

Subfamily EUCOILINAE

Parasites in the puparia of Diptera.

Genus KLEIDOTOMA Westwood

Subgenus KLEIDOTOMA Westwood

Kleidotoma Westwood, 1833. Mag. Nat. Hist. 6: 494.
Type: *Kleidotoma psiloides* Westwood. Monob.
Clidotoma Westwood, 1869. *In* Foerster, Zool.-Bot. Gesell. Wien, Verh. 19: 342, 348. Emend.
Schizosema Kieffer, 1901. Feuille Jeunes Nat. (4) 31: 161.
Type: *Cothonaspis emarginatus* Hartig. Desig. by Ashmead, 1903.
Coptereucoila Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 151.
Type: *Coptereucoila americana* Ashmead, 1887. Monob.
Trirhoptrasema Kieffer, 1901. Soc. Ent. France Bul., p. 344.
Type: *Kleidotoma americana* Ashmead, 1887. Monob.

americana Ashmead. Que. (Cap Rouge).
Kleidotoma americana Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 151, line 6. ♀.
Trirhoptrasema ashmeadi Rohwer and Fagan, 1917. U. S. Natl. Mus. Proc. 53: 377, footnote. N. name. (Unnecessarily proposed).

ashmeadi (Kieffer). Fla. (Jacksonville).
Coptereucoila americana Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 151, top line. ♀. Preocc.

Cleidotoma (*Cleidotoma*) (!) ***ashmeadi*** Kieffer, 1901. Feuille Jeunes Nat. (4) 31: 161. N. name.

fossa Kieffer. Calif. (San Mateo Co.).
Kleidotoma fossa Kieffer, 1908. Soc. Sci. Bruxelles, Ann. 32: 60. ♀.

marginata (Gillette). Ill. (Quincy, Normal).
Coptereucoila marginata Gillette, 1891. Ill. State Lab. Nat. Hist. Bul. 3: 203. ♀.

marginata var. **glabra** Kieffer. Calif. (San Mateo Co.).
Kleidotoma marginata var. ***glabra*** Kieffer, 1908. Soc. Sci. Bruxelles Ann. 32: 61. ♂ ♀.

Subgenus TETRARHOPTRA Foerster

Tetrarhoptra Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 342, 349.
Type: *Kleidotoma heterotoma* Thomson, 1861. Orig. desig.
Tetratoma Cameron, 1890. Monog. Brit. Phytophagous Hym., v. 3, p. 223.
Type: *Kleidotoma heterotoma* Thomson. Desig. by Rohwer and Fagan, 1917.

alaskensis (Ashmead). Alaska (St. Paul Island).
Tetrarhapta (!) ***alaskensis*** Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 141. ♂ ♀.

lugens Kieffer. Colo., Calif.
Kleidotoma lugens Kieffer, 1908. Soc. Sci. Bruxelles, Ann. 32: 62. ♀.

tristis Kieffer. Calif. (San Mateo Co.).
Kleidotoma (*Tetrarhoptra*) ***tristis*** Kieffer, 1908. Soc. Sci. Bruxelles, Ann. 32: 62. ♀.

Subgenus KLEIDOTOMIDEA Rohwer and Fagan

Kleidotomidea Rohwer and Fagan, 1917. U. S. Natl. Mus. Proc. 53: 369.
Type: *Kleidotoma hexatoma* Thomson. Monob. and orig. desig.

californica Kieffer. Calif.
Kleidotoma (*Hexacola*) ***californica*** Kieffer, 1908. Soc. Sci. Bruxelles, Ann. 32: 62. ♂ ♀.

Subgenus HEPTAMERIS Foerster

Heptameris Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 342, 350.
Type: *Eucoela pygmaea* Dahlbom. Monob.

oscinidis (Ashmead). Ohio. Host: "*Oscinis variabilis*" in wheat stems.
Heptameris oscinidis Ashmead, 1893. Ohio Agr. Expt. Sta. Tech. Ser. Bul. 1 (3): 159. ♀.

Not Assignable to Subgenus at Present

avenae (Fitch). N. Y. Captured in grain field.
Allotria Avenae Fitch, 1861 (1860). N. Y. State Agr. Soc. Trans. 20: 842. ♂.

carolinensis Kieffer. "Carolina."
Kleidotoma carolinensis Kieffer, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 4: 334. ♂.

rufitarsis (Ashmead), n. comb. Kans. (Riley Co.).
Coptereucoilia (!) *rufitarsis* Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. 1. ♀.

Genus HEXACOLA Foerster

Hexacola Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 342, 349.
Type: *Eucoela picicrus* Giraud. Monob.

californica (Kieffer). Calif. (San Mateo Co.).
Kleidotoma (*Hexacola*) ***californica*** Kieffer, 1908. Soc. Sci. Bruxelles, Ann. 32: 62. ♂ ♀.

subaperta (Kieffer), n. comb. Pa. (Jeannette).
Ganaspis subaperta Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 131. ♀.

Genus EUTRIAS Foerster

Eutrias Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 344, 357.
Type: *Eucoela tritoma* Thomson. Monob.

tritoma (Thomson). Tex. Introduced from Europe. Host: Sepsidae in cow dung.
Eucoela tritoma Thomson, 1861. Öfvers. Svenska Vetensk.-Akad. Forh. 18: 403.

Genus EUCOILA Westwood

Eucoila Westwood, 1833. Mag. Nat. Hist. 6: 494.
Type: *Eucoila crassinerva* Westwood. Monob.
Eucoela Agassiz, 1846. Nomencl. Zool. Index Univ., p. 146. Emend.
Psilodora Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 348, 354.
Type: *Cothonaspis boyenii* Hartig. Orig. desig.
Lytosema Kieffer, 1901. Feuille Jeunes Nat. (4) 31: 162.
Type: *Eucoila guerini* Dahlbom. Desig. by Ashmead, 1903.

atricornis (Kieffer), n. comb. "Carolina."
Lytosema atricornis Kieffer, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 4: 330. ♂.

cultra (Girault), n. comb. Ill. (Urbana).
Psilodora cultra Girault, 1920. U. S. Natl. Mus. Proc. 58: 182. ♀.

erythropa (Ashmead), n. comb. Va. to Ga.; west to Mo., Tex. Reported on human excrement.
Cothonaspis erythropus Ashmead, 1888. Kans. Agr. Expt. Sta. Bul. 3: App. p. 1. ♂.

hirticornis (Kieffer), n. comb. Pa.
Lytosema hirticornis Kieffer, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 4: 330. ♀.

impatiens (Say). N. Y., Ill., N. Mex., Tex. Introduced into Hawaii. Host: Dung-fly larvae.
Diplolepis impatiens Say, 1836. Boston Jour. Nat. Hist. 1: 267. ♂.
Kleidotoma cupulifera Provancher, 1881. Nat. Canad. 12: 238. ♂ ♀.

rufocincta (Kieffer), n. comb. Western and Southwest. U. S. Hosts: Maggots in cow dung and blow-fly larvae in carrion.
Psilodora rufocincta Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 131. ♂.

rufoscutata Kieffer. Ark. (Fayetteville).
Eucoila rufoscutata Kieffer, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 4: 332. ♂.

septemspinosa Gillette. Ill. (Quincy).
Eucoila 7-spinosa Gillette, 1891. Ill. State Lab. Nat. Hist. Bul. 3: 204. ♀.

vagabunda (Ashmead), n. comb. Gulf coast from Fla. to Miss., La., Tex.
Kleidotoma vagabunda Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 302. ♀.

Genus APOREUCOELA Kieffer

Aporeucoela Kieffer, 1908. Soc. Sci. Bruxelles, Ann. 32: 49.
Type: *Aporeucoela fuscipes* Kieffer. Monob.

floridana (Ashmead), n. comb. Fla. (Archer).
Piezobria floridana Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 185. ♀.

fuscipes Kieffer. Calif. (Claremont).
Aporeucoela fuscipes Kieffer, 1908. Soc. Sci. Bruxelles, Ann. 32: 49. ♀.

Genus TRYBLIOGRAPHA Foerster

Subgenus TETRAPLASTA Ashmead

Tetraplasta Ashmead, 1903. Psyche 10: 68.
Type: *Tetraplasta unica* Ashmead. Orig. desig.

bakeriana (Kieffer), n. comb. Calif. (San Mateo Co.).
Cothonaspis bakeriana Kieffer, 1908. Soc. Sci. Bruxelles, Ann. 32: 56. ♀ ♂.

pictipennis (Kieffer). Calif. (Claremont).
Cothonaspis (Tetraplasta) pictipennis Kieffer, 1909. Soc. Hist. Nat. Metz Bul. 26: 70. ♂ ♀.

unica (Ashmead). ? North America.
Tetraplasta unica Ashmead, 1903. Psyche 10: 68. ♀.

Subgenus PENTAPLASTIDIA Weld, new subgenus

Proposed for species with a 5-segmented club in antenna of female.

Type: ***Cothonaspis (Pentarhoptra) clarimontis*** Kieffer. Present desig.

clarimontis (Kieffer), n. comb. Calif. (Claremont).
Cothonaspis (Pentarhoptra) clarimontis Kieffer, 1909. Soc. Hist. Nat. Metz Bul. 26: 72. ♀.

Subgenus HEXAPLASTA Foerster

Hexaplasta Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 345, 359.
Type: ***Cothonaspis hexatoma*** Hartig. 1841. Orig. desig.
Didyctium Riley, 1879. *In* Comstock, Rpt. on Cotton Ins., p. 197–8.
Type: ***Didyctium zig-zag*** Riley. Monob.

californica (Kieffer). Calif.
Hexaplasta mexicana Ashmead, 1895. Calif. Acad. Sci. Proc. (2) 5: 541. ♀. Preocc.
Cothonaspis (Hexaplasta) californica Kieffer, 1901. Feuille Jeunes Nat. (4) 31: 173. N. name.

fungicola (Crawford). D. C.
Hexaplasta fungicola Crawford, 1915. U. S. Natl. Mus. Proc. 48: 581. ♀.

lucida (Rohwer). N. Y. (Syracuse).
Hexaplasta lucida Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 219. ♂ ♀.

marlatti (Crawford). Va. (Warrenton).
Hexaplasta marlatti Crawford, 1915. U. S. Natl. Mus. Proc. 48: 580. ♂ ♀.

minuta (Crawford). Tenn. (Nashville).
Hexaplasta minuta Crawford, 1916. Insecutor Inscitiae Menstruus 4: 101. ♀.

websteri (Crawford). Kans. (Wellington). Host: *Euxesta nitidiventris* Loew.
Hexaplasta websteri Crawford, 1915. U. S. Natl. Mus. Proc. 48: 582. ♀.

zig-zag (Riley), n. comb. Ala. Host: *Megaselida aletiae* (Comst.).
Didyctium zig-zag Riley, 1879. *In* Comstock, Rpt. on Cotton Ins., p. 198. ♂ ♀.

Subgenus TRYBLIOGRAPHA Foerster

Trybliographa Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 345, 359.
Type: ***Cothonaspis scutellaris*** Hartig. Orig. desig.
Cothonaspis of authors (not of Hartig).
Dimicrosthophis (!) Ashmead, 1887. *In* Provancher, Addit. Corr. Faune Ent. Canada Hym., p. 172.
Type: ***Dimicrostrophis ruficornis*** Ashmead. Monob.
Dusmetiola Tavares, 1924. Brotéria, Rev. Luso-Brazil. Ser. Zool. 21: 18. N. syn.
Type: ***Dusmetiola hispanica*** Tavares. Monob.

fuscostriata (Kieffer), n. comb. Calif. (San Mateo).
Cothonaspis fuscostriata Kieffer, 1908. Soc. Sci. Bruxelles, Ann. 32: 55. ♂ ♀.

neocera (Kieffer), n. comb. Pa. (Jeannette).
Cothonaspis (Anectoclis) neocera Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 131. ♂ ♀.

rapae (Westwood), n. comb. Introduced. Minn., Mich., Ill., N. Y., N. J., Colo., Wash., B. C., Ont.
Eucoila rapae Westwood, 1835. Mag. Nat. Hist. 8: 178. ♂ ♀.
Pseudeucoila gillettei Washburn, 1906. Minn. Agr. Expt. Sta. Bul. 100: 8. ♀.

ruficornis (Ashmead). Que. (Cap Rouge).
Dimicrostrophis ruficornis Ashmead, 1887. *In* Provancher, Addit. Corr. Faune Ent. Canada Hym., p. 173. ♀.

Not Assignable to Subgenus at Present

aperta (Kieffer), n. comb. Calif. (San Mateo Co.).
Eucoila (Rhoptromeris) aperta Kieffer, 1908. Soc. Sci. Bruxelles, Ann. 32: 58. ♂.

bakeriana var. **nigriventris** (Kieffer), n. comb. Calif. (San Mateo).
Cothonaspis bakeriana var. *nigriventris* Kieffer, 1909. Soc. Hist. Nat. Metz Bul. 26: 73. ♂.

coloradensis (Kieffer), n. comb. Colo.
Cothonaspis coloradensis Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 136. ♂.

klagesi (Kieffer), n. comb. Pa. (Jeannette).
Cothonaspis klagesi Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 136. ♂.

melanopa (Ashmead), n. comb. Ohio. Host: *Leucopis* sp.
Hexaplasta melanopa Ashmead, 1894. Cincinnati Soc. Nat. Hist. Jour. 17: 40, 45. ♂.

nigricornis (Provancher), n. comb. Ont. (Ottawa).
Dimicrostrophis nigricornis Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 436. ♀.

Genus PSICHACRA Foerster

Psichacra Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 344, 356.
Type: *Cothonaspis longicornis* Hartig. Monob.

laticeps (Kieffer). Nev. (Ormsby Co.).
Eucoila (Psichacra) laticeps Kieffer, 1908. Soc. Sci. Bruxelles, Ann. 32: 57. ♀.

troglodytes (Kieffer). Wis. (Polk Co.).
Eucoila (Psichacra) troglodytes Kieffer, 1909. Soc. Hist. Nat. Metz Bul. 26: 74. ♀.

Genus GANASPIS Foerster

Ganaspis Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 334, 355.
Type: *Ganaspis mundata* Foerster. Monob.

diastrophi Ashmead. Nebr.
Ganaspis diastrophi Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 184. ♂ ♀.

nigra (Kieffer), n. comb. Pa. (Jeannette).
Miteucoela nigra Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 121. ♀.

reclusa Kieffer. Calif.
Ganaspis reclusa Kieffer, 1908. Soc. Sci. Bruxelles, Ann. 32: 51. ♀.

Genus HYPOLETHRIA Foerster

Hypolethria Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 343, 354
Type: *Eucoela melanoptera* Hartig. Monob.

vitellinipes (Kieffer). Pa. (Jeannette).
Eucoela vitellinipes Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 138. ♂.

Genus RHOPTROMERIS Foerster

Rhoptromeris Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 344, 356.
Type: *Cothonaspis eucera* Hartig. Orig. desig.

nigroclavata (Kieffer). Pa. (Jeannette).
Eucoela (*Rhoptromeris*) *nigroclavata* Kieffer, 1907. Ent. Ztschr. Stuttgart 21:138. ♂ ♀.

Genus AGLAOTOMA Foerster

Aglaotoma Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19:334, 354.
Type: *Cothonaspis codrina* Hartig. Monob.
Crypteucoela Kieffer, 1904. *In* André, Spec. Hym. Eur. Alg., v. 7 bis, p. 618.
Type: *Cothonaspis codrina* Hartig. Desig. by Rohwer and Fagan, 1917.
Aglaotomidea Rohwer and Fagan, 1917. U. S. Natl. Mus. Proc. 53:360.
Type: *Aglaotoma foersteri* Kieffer. Monob. and orig. desig.

texana Crawford. Tex. (Dallas).
Aglaotoma texana Crawford, 1913. U. S. Natl. Mus. Proc. 45:309. ♂ ♀.

Genus PSEUDEUCOILA Ashmead

Subgenus HEXAMEROCERA Kieffer

Hexamerocera Kieffer, 1901. Feuille Jeunes Nat. (4) 31:174, 175, 176.
Type: *Eucoila rufiventris* Giraud. Desig. by Ashmead, 1903.

maculipes (Ashmead), n. comb. Fla.
Hexaplasta maculipes Ashmead, 1887. Amer. Ent. Soc. Trans. 14:152. ♀.

quadripunctata (Kieffer), n. comb. Calif.
Eucoela mexicana Ashmead, 1895. Calif. Acad. Sci. Proc. (2) 5:541. ♀. Preocc.
Eucoela (*Psichacra*) *quadripunctata* Kieffer, 1901. Feuille Jeunes Nat. (4) 31:176. N. name.

zimmermanni (Kieffer). "Carolina."
Eucoela (*Hexamerocera*) *zimmermanni* Kieffer, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 4:333. ♀.

Subgenus PSEUDEUCOILA Ashmead

Pseudeucoila Ashmead, 1903. Ent. Soc. Wash. Proc. 5:222.
Type: *Eucoela* (*Cothonaspis*) *trichopsila* Hartig. Monob.
Eucoila and *Eucoela* of authors, not of Westwood.

alaskensis (Ashmead), n. comb. Alaska (Seldovia).
Eucoela alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4:142. ♀.

bochei Weld. Md., Va., Pa., Ohio. Host: *Drosophila* spp. in decaying fruit.
Pseudeucoila bochei Weld, 1944. Ent. Soc. Wash. Proc. 46:65. ♂ ♀.

hunteri (Crawford), n. comb. Tex. (Dallas). Host: leaf miner on cotton.
Eucoila hunteri Crawford, 1913. U. S. Natl. Mus. Proc. 45:310. ♀.

stigmata (Say), n. comb. Mass., N. Y., N. J., D. C., Va., Ill., Ind., Canada.
Diplolepis stigmata Say, 1836. Boston Jour. Nat. Hist. 1:268.
Kleidotoma maculipennis Provancher, 1881. Nat. Canad. 12:237. ♀.

Subgenus MACROCEREUCOILA Ashmead

Macrocereucoila Ashmead, 1887. Amer. Ent. Soc. Trans. 14:153.
Type: *Macrocereucoila longicornis* Ashmead. Monob.

longicornis (Ashmead). Fla.
Macrocereucoila longicornis Ashmead, 1887. Amer. Ent. Soc. Trans. 14:153. ♂. Preocc.
Eucoela (*Macrocereucoela*) *Ashmeadiana* Dalla Torre and Kieffer, 1902. *In* Wytsman, Gen. Ins., fasc. 9, Cynipidae, p. 26. N. name.
Eucoila (*Macrocereucoila*) *ashmeadi* (!) Dalla Torre and Kieffer, 1910. Das Tierreich, v. 24, p. 181.

Not Assignable to Subgenus at Present

bruneocincta (Kieffer), n. comb. Pa. (Jeannette).
Eucoela bruneocincta Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 138. ♂.

clavatipalpis (Kieffer), n. comb. Ont. (Toronto).
Eucoela clavatipalpis Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 138. ♂.

mellipes (Say), n. comb. Ind., Ill., Ont.
Figites mellipes Say, 1836. Boston Jour. Nat. Hist. 1: 269. ♀.
Kleidotoma minima Provancher, 1883. Nat. Canad. 14: 20. ♀.

nigrimanus (Kieffer), n. comb. Calif. (Claremont).
Eucoela nigrimanus Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 138. ♂.

nudicollis (Kieffer), n. comb. Wis. (Polk Co.).
Eucoila (Eucoila) nudicollis Kieffer, 1909. Soc. Hist. Nat. Metz Bul. 26: 74. ♂.

pedata (Say), n. comb. Ind.
Diplolepis pedata Say, 1836. Boston Jour. Nat. Hist. 1: 267. ♂.

rubripes (Ashmead), n. comb. Fla. (Jacksonville).
Eucoila rubripes Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 153. ♂.

siphonophorae (Ashmead), n. comb. Fla. (Jacksonville).
Eucoila siphonophorae Ashmead, 1887. U. S. Dept. Agr., Div. Ent. Bul. 14: 21. ♂.

xystiformis (Ashmead), n. comb. Fla. (Jacksonville).
Dimicrostrophis xystiformis Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 153. ♂.

Genus COTHONASPIS Hartig

Cothonaspis Hartig, 1839 (1840). Germar Ztschr. f. Ent. 2: 186.
Type: *Cothonaspis pentatomus* Hartig. Desig. by Foerster, 1869.
Psilosema Kieffer, 1901. Feuille Jeunes Nat. (4) 31: 160.
Type: (*Eucoila pentatoma* Giraud)=*Erisphagia* (*Psilosema*) *giraudi* Dalla Torre and Kieffer.

americana (Girault), n. comb. Ill. (Urbana).
Microstilba americana Girault, 1920. U. S. Natl. Mus. Proc. 58: 182. ♀.

pratti (Crawford), n. comb. Tex. (Dallas).
Psilosema pratti Crawford, 1913. U. S. Natl. Mus. Proc. 45: 310. ♂ ♀.

Genus EUCOILIDEA Ashmead

Eucoilidea Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 154.
Type: *Eucoilidea canadensis* Ashmead. Desig. by Ashmead, 1903.
Eucoelidea Dalla Torre, 1893. Cat. Hym., v. 2, p. 15.—Kieffer, 1901. Feuille Jeunes Nat. (4) 31: 159. Emend.

arcuata Kieffer. Wis. (Polk Co.).
Eucoelidia (!) *arcuata* Kieffer, 1909. Soc. Hist. Nat. Metz. Bul. 26: 65. ♂ ♀.

canadensis Ashmead. Que. (Cap Rouge).
Eucoilidea canadensis Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 154. ♀.

crenulata Kieffer. Colo. (Gunnison).
Eucoilidea crenulata Kieffer, 1908. Soc. Sci. Bruxelles, Ann. 32: 47. ♀.

fuscipes Kieffer. Calif. (Claremont).
Eucoilidia (!) *fuscipes* Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 112. ♂.

longicornis Ashmead. Fla. (Jacksonville).
Eucoilidea longicornis Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 154. ♂.

rufipes Gillette. Ill. (Morris).
Eucoilidea rufipes Gillette, 1891. Ill. State Lab. Nat. Hist. Bul. 3: 205. ♀.

Subfamily CHARIPINAE

Parasites of braconids in abdomen of plant lice, i. e., hyperparasites of aphids.

Genus LYTOXYSTA Kieffer

Lytoxysta Kieffer, 1909. Naturw. Ztschr. f. Forst. u. Landw. 7: 479.
Type: ***Lytoxysta brevipalpis*** Kieffer. Desig. by Rohwer and Fagan, 1917.

brevipalpis Kieffer. Mass., Ark., Ohio, Utah, Idaho.
Lytoxysta brevipalpis Kieffer, 1909. Naturw. Ztschr. f. Forst. u. Landw. 7: 480. ♀.

Taxonomy: Weld, 1939. Ent. Soc. Wash. Proc. 41: 53, ♂.

brevipalpis var. **nigra** Kieffer. Ark.
Lytoxysta brevipalpis var. ***nigra*** Kieffer, 1909. Naturw. Ztschr. f. Forst. u. Landw. 7: 480.

Genus CHARIPS Marshall

Allotria Westwood, 1833. Mag. Nat. Hist. 6: 494. Preocc.
Type: ***Allotria victrix*** Westwood. Monob.
Xystus Hartig, 1839 (1840). Germar Ztschr. f. Ent. 2: 186. Preocc.
Type: (***Xystus erythrocephalus*** Hartig)=[***Allotria***] ***victrix*** (Westwood). Desig. by Rohwer and Fagan, 1917.
Charips Marshall, 1870. Ent. Monthly Mag. 6: 181.
Type: ***Charips microsera*** Marshall. Monob.
Auloxysta Thomson, 1877. Opusc. Ent., v. 8, p. 811.
Type: ***Auloxysta nigripes*** Thomson. Desig. by Ashmead, 1903.
Bothrioxysta Kieffer, 1902. Soc. Hist. Nat. Metz Bul. (2) 10: 11.
Type: ***Auloxysta nigripes*** Thomson. Desig. by Rohwer and Fagan, 1917.

ambrosiae (Ashmead). Mass. (Cambridge).
Allotria ambrosiae Ashmead, 1897. Ent. Soc. Wash. Proc. 4: 149, 156. ♀.

areolata Kieffer. Mass. (Forest Hills). Host: *Macrosiphum* sp. on tansy.
Charips areolata Kieffer, 1909. Naturw. Ztschr. f. Forst. u. Landw. 7: 481. ♂ ♀.

bakeri (Kieffer), n. comb. Calif. (San Mateo).
Allotria bakeri Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 162. ♀.

brassicae (Ashmead). Fla., Ariz., Calif., N. Y., Mich., Mo., N. Dak. Host: *Brevicoryne brassicae* (L.).
Allotria brassicae Ashmead, 1887. U. S. Dept. Agr., Div. Ent. Bul. 14: 14. ♂ ♀.

hayhursti Kieffer. Mass. (Forest Hills).
Charips hayhursti Kieffer, 1909. Naturw. Ztschr. f. Forst. u. Landw. 7: 481. ♂ ♀.

lachni (Ashmead). Fla.
Allotria lachni Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 297, 302. ♂ ♀.

leguminosa Weld. Idaho, Utah. Host: *Aphelinus lapisligni* How. in *Anuraphis bakeri* (Cowen).
Charips (Charips) leguminosa Weld, 1920. Ent. News 31: 15. ♂ ♀.

megourae (Ashmead). Fla. (Jacksonville). Reared from tomato aphis.
Allotria megourae Ashmead, 1887. U. S. Dept. Agr., Div. Ent. Bul. 14: 19. ♀.

xanthopsis (Ashmead). Fla., Calif.
Allotria xanthopsis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 185. ♂.

Genus ALLOXYSTA Foerster

Alloxysta Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 338, 340.
Type: ***Xystus macrophadnus*** Hartig. Monob.
Dilyta Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 338, 340.
Type: ***Dilyta subclavata*** Foerster. Monob.

abdominalis Baker. Colo. (Ft. Collins).
Alloxysta abdominalis Baker, 1896. Canad. Ent. 28: 135. ♀.

affinis (Baker). Colo. (Ft. Collins).
Dylita (!) ***affinis*** Baker, 1896. Canad. Ent. 28: 132. ♀.

alaskensis Ashmead. Alaska (Muir Inlet, St. Paul Is.).
Alloxysta alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 142. ♂ ♀.

apicalis Baker. Colo. (Ft. Collins).
Alloxysta apicalis Baker, 1896. Canad. Ent. 28: 135. ♀.

bicolor (Baker). Colo. (Ft. Collins).
Dylita (!) *bicolor* Baker, 1896. Canad. Ent. 28: 132. ♀.

coloradensis (Baker). Colo. (Ft. Collins).
Dylita (!) *coloradensis* Baker, 1896. Canad. Ent. 28: 133. ♂.

gracilis Baker. Colo. (Ft. Collins).
Alloxysta gracilis Baker, 1896. Canad. Ent. 28: 134. ♀.

longiventris Baker. Colo. (Ft. Collins).
Alloxysta longiventris Baker, 1896. Canad. Ent. 28: 134. ♀.

magna Baker. Colo. (Ft. Collins).
Alloxysta magna Baker, 1896. Canad. Ent. 28: 134. ♀.

robusta Baker. Colo. (Ft. Collins).
Alloxysta robusta Baker, 1896. Canad. Ent. 28: 133. ♀.

ruficeps (Baker). Colo. (Ft. Collins).
Dylita (!) *ruficeps* Baker, 1896. Canad. Ent. 28: 132. ♀.

rufipleura Baker. Colo. (Ft. Collins).
Alloxysta rufipleura Baker, 1896. Canad. Ent. 28: 135. ♂.

similis (Baker). Colo. (Ft. Collins).
Dylita (!) *similis* Baker, 1896. Canad. Ent. 28: 133. ♂.

tritici (Fitch). N. Y., Ind., Ohio, N. C., N. J., Va., D. C. Reared from *Toxoptera graminum* (Rond.).
Allotria tritici Fitch, 1861 (1860). N. Y. State Agr. Soc. Trans. 20: 841. ♀.

vagans Kieffer. Mass. (Forest Hills). Reared from *Hyalopterus dactylidis* Hayh.
Alloxysta vagans Kieffer, 1909. Naturw. Ztschr. f. Forst. u. Landw. 7: 480. ♀.

Genus GLYPTOXYSTA Thomson

Glyptoxysta Thomson, 1877. Opusc. Ent., v. 8, p. 811, 814.
Type: *Glyptoxysta heterocera* Thomson. Desig. by Ashmead, 1903.

necans Kieffer. Mass. (Forest Hills).
Glyptoxysta necans Kieffer, 1909. Naturw. Ztschr. f. Forst. u. Landw. 7: 481. ♀.

Genus HEMICRISIS Foerster

Hemicrisis Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 338, 339.
Type: *Hemicrisis ruficornis* Kieffer. Monob.

brevicornis Kieffer. Nev. (Ormsby Co.).
Hemicrisis brevicornis Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 162. ♂.

nevadensis Kieffer. Nev. (Ormsby Co.).
Hemicrisis nevadensis Kieffer, 1907. Ent. Ztschr. Stuttgart 21: 162. ♀.

Genus PHAENOGLYPHIS Foerster

Phaenoglyphis Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 338.
Type: *Phaenoglyphis xanthochroa* Foerster. Monob.

americana Baker. Colo. (Ft. Collins).
Phaenoglyphis americana Baker, 1896. Canad. Ent. 28: 131. ♂.

Subfamily CYNIPINAE

Plant-inhabiting species, either as gall makers or inquilines in galls. The species of *Neuroterus*, and of all the genera following that genus in the present treatment, produce galls on oak.

The symbol "0" is used when the original description included a description of the gall.

The type locality has been placed immediately after the specific heading and the host from which the species was described is usually mentioned first.

To avoid confusion caused by recent changes in the botanical names of certain oaks the following usage is here adopted: *Quercus rubra* for the northern red oak; *Q. falcata* for the Spanish oak; *Q. cinerea* for the blue-jack oak; *Q. catesbaei* for the turkey oak; *Q. prinus* for the rock chestnut oak; *Q. michauxii* for the basket oak.

To conserve space the following short titles will be used for three papers:

"Genus Cynips" for Kinsey, 1930. The Gall Wasp Genus Cynips, Ind. Univ. Studies 16, Nos. 84, 85, 86: 1–577 (June, Sept., Dec. 1929). (Waterman Inst. Sci. Res. Pub. 42; Contrib. Dept. Zool. Ind. Univ. No. 220, Ent. Ser. No. 7.)

"Higher Categories" for Kinsey, 1936. The Origin of Higher Categories in Cynips, Ind. Univ. Pubs., Sci. Ser. No. 4: 1–334. (Contrib. Dept. Zool. Ind. Univ. No. 242, Ent. Ser. No. 10.)

"Genera Gallenbew. Cynip." (the title of the more familiar separate) for Mayr, 1881. 20 Jahresber. Comm.-Oberrealsch. I. Bez. Wien, pp. 1–38.

Some of the early American describers of gall makers (e. g., Fitch 1859) prefixed *quercus* (with a hyphen) before the specific name (e. g., *Cynips quercus-globulus*) to indicate the plant on which the gall was formed. This *quercus-globulus* must be regarded as a compound specific name and retained.

Osten Sacken (1861, 1862, 1863), Bassett (1863, 1864, 1881) and Ashmead (1881) in their descriptions either omitted the hyphen or abbreviated the *quercus* to *q.* By strict interpretation of the International Rules such names are trinomial and not available, although it is obvious these authors did not regard them as trinomial and sometimes listed the species without the *quercus* or *q.* in the same year and volume. (Dalla Torre and Kieffer in Das Tierreich, 1910, had no authority for supplying a hyphen in these cases thus making binomials of them.)

Osten Sacken in 1865 and Ashmead in 1885 listed the then known American species as binomials and in each instance cited the previous description but credited the species to the original author. But under the Rules the species dates from the first publication in such a list and is to be credited to the author of the list although the original description was by another author at an earlier date. This is a manifest injustice for these authors had no idea their names were not valid. The Cresson Synopsis of 1887 and later authors dropped the *quercus* "in conformity with usage." Binomials in the following lists, lacking citations, are not valid: Packard, 1881, U. S. Ent. Comn. Bul. 7: 56–57; Bassett, 1882, Amer. Nat. 16: 246, 329; Mayr, 1881, Genera Gallenbew. Cynip., p. 28, 29, 30, 36, 37. (*Mammula* Mayr is valid for it is the only species and the genotype of his new genus *Loxaulus*.)

To conform to the Rules will change the long-familiar authority for a species in some 35 cases. As treated here, under each of these species names are listed (1) the reference to the original description followed by "Tri." to indicate the name was trinomial in form and not available, (2) early binomials (if any) not available because they are *nomina nuda*, (3) the first valid binomial, (4) synonyms (if any).

Genus SAPHONECRUS Dalla Torre and Kieffer

Saphonecrus Dalla Torre and Kieffer, 1910. Das Tierreich, v. 24, p. 605.
Type: ***Synergus connatus*** Hartig. Orig. desig.
Guests in galls on oak.

brevis Weld. N. Mex., Ariz. Reared from galls of *Andricus ruginosus* Bassett.
Saphonecrus brevis Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 109. ♀ ♂.

favanus Weld. D. C., Mo. Reared from galls of *Dryocosmus favus* Beutenmueller.
Saphonecrus favanus Weld, 1944. U. S. Natl. Mus. Proc. 95: 1. ♀ ♂.

gemmariae (Ashmead). Fla. Reared from galls of *Callirhytis gemmaria* (Ashmead).
Sapholytus gemmariae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 297, 302. ♂.

Genus SYNERGUS Hartig

Synergus Hartig, 1839 (1840). Germar Ztschr. f. Ent. 2: 186.
Type: ***Synergus vulgaris*** Hartig. Desig. by Foerster, 1869.
Sapholytus Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 332, 337.
Type: ***Synergus apicalis*** Hartig. Monob.

Guests in galls on oak.

agrifoliae Ashmead. Calif. Reared from galls of *Neuroterus saltatorius* (H. Edwards).
Synergus agrifoliae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 189. ♀ ♂.

atra Gillette. Colo. Reared from galls of *Disholcaspis rubens* (Gillette).
Synergus atra Gillette, 1896. Amer. Ent. Soc. Trans. 23: 86. ♀ ♂.

atripennis Ashmead. Fla. Reared from galls of *Disholcaspis spongiosa* (Karsch).
Synergus atripennis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 189. ♀.

atripes Gillette. Colo. Reared from galls of *Atrusca brevipennata* (Gillette).
Synergus atripes Gillette, 1896. Amer. Ent. Soc. Trans. 23: 90, 96. ♀ ♂.

batatoides Ashmead. Fla. Reared from galls of *Callirhytis batatoides* (Ashmead).
Synergus batatoides Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 297, 301. ♀ ♂.

bellus McCracken and Egbert. Calif.
Synergus bellus McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 54. ♀ ♂.

bicolor Ashmead. Fla. Reared from gall of *Andricus foliatus* Ashmead.
Synergus bicolor Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 297, 302. ♀ ♂.

brevicornis Ashmead. Calif.
Synergus brevicornis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 189. ♀ ♂.

campanula Osten Sacken. D. C., N. J., N. Y., Ill., Wis. Bred from gall of *Disholcaspis quercus-globulus* (Fitch).
Synergus campanula Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 376. ♀.

castanopsidis (Beutenmueller). Calif. Reared from gall of *Dryocosmus castanopsidis* (Beutenmueller).
Periclistus castanopsidis Beutenmueller, 1918. Ent. News 29: 251. ♀.

citriformis (Ashmead). Fla. Reared from gall of *Amphibolips citriformis* Ashmead.
Ceroptres citriformis Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 300. ♀ ♂.

confertus McCracken and Egbert. Calif. Reared from gall of *Andricus confertus* McCracken and Egbert.
Synergus confertus McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 55. ♀ ♂.

coniferae Ashmead. Fla. Reared from gall of *Callirhytis ventricosa* (Osten Sacken).
Synergus coniferae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 297, 301. ♀ ♂.

davisi (Beutenmueller). N. J. Guest in gall of *Callirhytis gemmaria* (Ashmead).
Andricus davisi Beutenmueller, 1907. Amer. Mus. Nat. Hist. Bul. 23: 463. ♀ ♂.

digressus McCracken and Egbert. Calif.
Synergus digressus McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 52. ♀ ♂.

dimorphus Osten Sacken. D. C.
Synergus dimorphus Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 376. ♀ ♂.

distinctus McCracken and Egbert. Calif. Reared from galls of *Disholcaspis canescens* (Bassett).
Synergus distinctus McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 58. ♀ ♂.

dorsalis (Provancher), n. comb. Calif.
Ceroptres dorsalis Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 298. ♀ ♂.

duricoria Gillette. Del. Reared from gall of *Disholcaspis mamma* (Cresson).
Synergus duricoria Gillette, 1896. Amer. Ent. Soc. Trans. 23: 90, 93. ♀.

erinacei Gillette. Iowa, N. Y.
Synergus erinacei Gillette, 1896. Amer. Ent. Soc. Trans. 23: 90, 94. ♀ ♂.

ficigerae Ashmead. Fla. Reared from galls of *Disholcaspis virens* (Ashmead).
Synergus ficigerae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 297, 301. ♀ ♂.

flavens McCracken and Egbert. Calif. Bred from galls of *Heteroecus flavens* (McCracken and Egbert).
Synergus flavens McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 55. ♀.

flavus Kieffer. Calif. Reared from gall of *Callirhytis pomiformis* (Ashmead).
Synergus flavus Kieffer, 1904. Soc. Hist. Nat. Metz Bul. (ser. 2) 11: 133. ♀ ♂.

garryana Gillette. Wash., Oreg. Reared from galls of *Disholcaspis eldoradensis* (Beutenmueller).
Synergus garryana Gillette, 1893. Canad. Ent. 25: 110. ♀ ♂.

incisus Gillette. Colo. Reared from galls of *Callirhytis frequens* (Gillette).
Synergus incisus Gillette, 1896. Amer. Ent. Soc. Trans. 23: 90, 92. ♀ ♂.

laeviventris (Osten Sacken). D. C. Reared from galls of *Amphibolips spongifica* (Osten Sacken).
Synophrus (?) ***laeviventris*** Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 57. ♀.

lignicola (Osten Sacken). D. C., N. Y., Mich., Ind. Reared from galls of *Callirhytis cornigera* (Osten Sacken) and *Callirhytis punctata* (Osten Sacken).
Cynips (***Synerges*** ?) (!) ***lignicola*** Osten Sacken, 1862. Ent. Soc. Phila. Proc. 1: 252. ♀ ♂.
Synerges (!) ***rhoditiformis*** Walsh, 1864. Ent. Soc. Phila. Proc. 2: 499. ♀ ♂.

maculatus Fullaway. Calif.
Synergus maculatus Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 371. ♀ ♂.

magnus Gillette. Mich. Reared from gall of *Amphibolips cookii* Gillette.
Synergus magnus Gillette, 1891. Ill. State Lab. Nat. Hist. Bul. 3: 202. ♀.

medullae Ashmead. Fla. Reared from gall of *Callirhytis medullae* (Ashmead).
Synergus medullae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 297, 302. ♀ ♂.

mendax Walsh. Ill. Reared from gall of *Callirhytis punctata* (Osten Sacken).
Synergus mendax Walsh, 1864. Ent. Soc. Phila. Proc. 2: 498. ♀.

multiplicatus Fullaway. Calif. Reared from gall of *Andricus chrysolepidicola* (Ashmead).
Synergus multiplicatus Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 370. ♀ ♂.

niger Fullaway. Calif.
Synergus niger Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 369. ♀ ♂.

nigro-ornatus McCracken and Egbert. Calif. Reared from galls of *Heteroecus pacificus* (Ashmead).

Synergus nigro-ornatus McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 57. ♀ ♂.

obscurus McCracken and Egbert. Calif.
Synergus obscurus McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 57. ♀.

obtusilobae (Ashmead). Fla.
Ceroptres obtusilobae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 300. ♀.

ochreus Fullaway. Calif. Reared from gall of *Callirhytis pomiformis* (Ashmead).
Synergus ochreus Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 368. ♀.

oneratus (Harris). Mass., N. Y., N. J., D. C., Mich., Ill., Iowa. Reared from galls of *Disholcaspis quercus-globulus* (Fitch) and *Adleria strobilana* (Osten Sacken).
Cynips oneratus Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 398.

oneratus var. **coloradensis** Gillette. Colo. Reared from galls of *Disholcaspis rubens* (Gillette) and *Atrusca brevipennata* (Gillette).
Synergus oneratus var. *coloradensis* Gillette, 1896. Amer. Ent. Soc. Trans. 23: 90. ♀ ♂.

pacificus McCracken and Egbert. Calif. Reared from galls of *Heteroecus pacificus* (Ashmead).
Synergus pacificus McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 56. ♂ ♀.

pomiformis (Ashmead). Calif. Reared from galls of *Callirhytis pomiformis* (Ashmead).
Ceroptres pomiformis Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 300. ♂.

profusus McCracken and Egbert. Calif. Reared from galls of *Disholcaspis canescens* (Bassett).
Synergus profusus McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 59. ♀ ♂.

punctatus Gillette. Colo. Reared from galls of *Disholcaspis rubens* (Gillette) and *Xanthoteras eburneum* (Bassett).
Synergus punctata Gillette, 1896. Amer. Ent. Soc. Trans. 23: 90, 94. ♀ ♂.

quercus-lana (Fitch). N. Y., Iowa. Reared from gall of *Andricus flocci* (Osten Sacken).
Cynips Quercus-lana Fitch, 1859 (1858). N. Y. State Agr. Soc. Trans. 18: 814. ♀.

reniformis McCracken and Egbert. Reared from gall of *Andricus reniformis* McCracken and Egbert.
Synergus reniformis McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 53. ♀ ♂.

rutulus McCracken and Egbert. Calif. Reared from gall of *Disholcaspis plumbella* Kinsey.
Synergus rutulus McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 60. ♀.

similis Gillette. Colo. Reared from galls of *Atrusca brevipennata* (Gillette).
Synergus similis Gillette, 1896. Amer. Ent. Soc. Trans. 23: 90, 92. ♀.

splendidus Fullaway. Calif. Reared from galls of *Callirhytis pomiformis* (Ashmead).
Synergus splendidus Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 369. ♀.
Synergus dubiosus Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 372. ♀ ♂.

succinipedis (Ashmead). Fla. Reared from galls of *Disholcaspis succinipes* (Ashmead).
Ceroptres succinipedis Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 300. ♀.

varicolor Fullaway. Calif. Reared from galls of *Callirhytis pomiformis* (Ashmead).
Synergus varicolor Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 371. ♀ ♂.

variegatus McCracken and Egbert. Calif. Reared from galls of *Heteroecus pacificus* (Ashmead).
Synergus variegatus McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 51. ♀ ♂.

villosus Gillette. Mich. Reared from galls of *Acraspis villosa* (Gillette).
Synergus villosus Gillette, 1891. Ill. State Lab. Nat. Hist. Bul. 3: 202. ♀.

virentis (Ashmead). Fla. Reared from galls of *Belonocnema fossoria* Weld.
Ceroptres virentis Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 300. ♀.

walshii Gillette. Ill.
Synophrus albipes Walsh, 1864. Ent. Soc. Phila. Proc. 2: 479, 496. ♀ ♂. Preocc.
Synergus walshii Gillette, 1896. Amer. Ent. Soc. Trans. 23: 97. N. name.

Genus SYNOPHRUS Hartig

Synophrus Hartig, 1843. Germar Ztschr. f. Ent. 4: 411.
Type: *Synophrus politus* Hartig. Monob.

mexicanus (Gillette), n. comb. N. Mex.
Synergus mexicana Gillette, 1896. Amer. Ent. Soc. Trans. 23: 90, 96. ♀.

Genus SYNOPHROMORPHA Ashmead

Synophromorpha Ashmead, 1903. Psyche 10: 145.
Type: *Synophromorpha salicis* Ashmead. Orig. desig.

Guests in galls on *Rubus* (and perhaps on *Salix*).

salicis Ashmead. Locality unknown.
Synophromorpha salicis Ashmead, 1903. Psyche 10: 145.

sylvestris (Osten Sacken), n. comb. D. C., N. J., Conn., N. Y., Mich., Ont. Reared from galls of *Diastrophus nebulosus* (Osten Sacken).
Synophrus (?) *sylvestris* Osten Sacken, 1861. Stettin. Ent. Ztg. 22: 415. ♀.

Genus PERICLISTUS Foerster

Periclistus Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 332, 337.
Type: *Aylax caninae* Hartig. Monob.

Guests in galls on roses.

arefactus McCracken and Egbert. Calif. Reared from galls of *Diplolepis arefacta* (Gillette).
Periclistus arefactus McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 62. ♀ ♂.

californicus Ashmead. Calif. Reared from galls of *Diplolepis polita* (Ashmead).
Periclistus californicus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 188. ♀ ♂.

obliquus Provancher. Calif.
Periclistus obliquus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym. p. 397. ♀.

piceus Fullaway. Calif. Reared from galls of *Diplolepis polita* (Ashmead).
Periclistus piceus Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 374. ♀ ♂.

pirata (Osten Sacken). D. C. Reared from galls of *Diplolepis ignota* (Osten Sacken).
Aulax pirata Osten Sacken, 1863. Ent. Soc. Phila. Proc. 2: 42. ♀ ♂.
Rhodites globulus Beutenmueller, 1892. Amer. Mus. Nat. Hist. Bul. 4: 247. ♀ ♂.

semipiceus (Harris). Mass. Reared from galls on roots of rose.
Cynips semipiceus Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 400. ♀ ♂.

smilacis Ashmead. Fla. "Reared from gall of *Diastrophus smilacis* Ashmead."
Periclistus smilacis Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 188. ♀ ♂.

Genus MYRTOPSEN Rübsaamen

Myrtopsen Rübsaamen, 1908. Marcellia 6: 136.
Type: *Myrtopsen mayri* Rübsaamen. Monob.

Reared from woody galls on leguminous trees and shrubs.

mimosae Weld. Ariz. Reared from galls on *Mimosa biuncifera.*
Myrtopsen mimosae Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 116. ♀ ♂.

Genus CEROPTRES Hartig

Ceroptres Hartig, 1839 (1840). Germar Ztschr. f. Ent. 2: 186, 197.
Type: *Ceroptres clavicornis* Hartig. Desig. by Foerster, 1869.

Guests in galls on oak.

catesbaei Ashmead. Fla. Guest in gall of *Bassettia catesbaei* (Ashmead).
Ceroptres catesbaei Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 301. ♀ ♂.

confertus (McCracken and Egbert). Calif. Guest in gall of *Andricus confertus* McCracken and Egbert.
Periclistus confertus McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 62. ♀.

frondosae Ashmead. Mo.
Ceroptres frondosae Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 186. ♀.

inermis (Walsh). Ill. Guest in gall of *Cincticornia pilulae* Walsh.
Amblynotus inermis Walsh, 1864. Ent. Soc. Phila. Proc. 2: 498. ♀ ♂.

lanigerae Ashmead. Fla. Guest in gall of *Andricus laniger* Ashmead.
Ceroptres lanigerae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 301. ♀.

minutissimi Ashmead. Fla. Guest in gall of *Neuroterus minutissimus* Ashmead.
Ceroptres minutissimi Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 301. ♀ ♂.

niger Fullaway. Calif. Type not a guest but an undetermined gall-maker.
Ceroptres niger Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 373. ♀.

obtusilobensis Weld, n. name. Tex. Guest in gall on post oak.
Diplolepis q. obtusilobae Karsch, 1880. Ztschr. f. Gesam. Naturw. 53: 292. ♀. Tri.
Cynips obtusilobae Dalla Torre, 1893. Cat. Hym., v. 2, p. 74. Preocc. by Ashmead, 1885.

petiolicola (Osten Sacken). D. C., Ill. Guest in gall of *Andricus petiolicola* (Osten Sacken).
Amblynotus (?) *petiolicola* Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 67. ♀.
Amblynotus ensiger Walsh, 1864. Ent. Soc. Phila. Proc. 2: 487, 496. ♀.

politus Ashmead. Va. Ovipositing in leaf of red oak.
Ceroptres politus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 187. ♀ ♂.

quercus-arbos (Fitch). N. Y. Guest in gall of *Callirhytis clavula* (Osten Sacken).
Cynips Quercus-arbos Fitch, 1859 (1858). N. Y. State Agr. Soc. Trans. 18: 809. ♂.

quercus-ficus (Fitch). N. Y. Guest in gall of *Xanthoteras forticorne* (Osten Sacken).
Cynips Quercus-ficus Fitch, 1859 (1858). N. Y. State Agr. Soc. Trans. 18: 812. ♀ ♂.

quercus-pisum (Fitch). N. Y. Guest in gall of *Acraspis pezomachoides* (Osten Sacken).
Cynips Quercus-pisum Fitch, 1859 (1858). N. Y. State Agr. Soc. Trans. 18: 818. ♀ ♂.

quercus-tuber (Fitch). N. Y. Guest in gall of *Callirhytis clavula* (Osten Sacken).
Cynips Quercus-tuber Fitch, 1859 (1858). N. Y. State Agr. Soc. Trans. 18: 806. ♀ ♂.

rufiventris Ashmead. Mo. Guest in gall of *Andricus ostensackenii* (Osten Sacken).
Ceroptres rufiventris Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 186. ♀.

Genus EUCEROPTRES Ashmead

Euceroptres Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 187.
Type: *Euceroptres primus* Ashmead. Monob.

Guests in galls on oak.

maritimus Weld. Calif. Guest in gall of *Callirhytis suttoni* (Ashmead).
Euceroptres maritimus Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 113, 116. ♀ ♂.

montanus Weld. Calif. Guest in gall of *Disholcaspis truckeensis* (Ashmead).
Euceroptres montanus Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 113, 116. ♀ ♂.

primus Ashmead. Fla. Guest in gall of *Andricus petiolicola* (Osten Sacken) and other oak galls.
Euceroptres primus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 187. ♀ ♂.
Aylax (?) ***futilis*** Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 51, 64. ♂. N. syn.

Genus GONASPIS Ashmead

Gonaspis Ashmead, 1897. Psyche 8: 68.
Type: ***Diastrophus scutellaris*** Gillette. Orig. desig.

Produce galls on *Potentilla.*

potentillae (Bassett). N. B. to Ill., Mo.; south to Va. Gall on *Potentilla canadensis.*
Diastrophus potentillae Bassett, 1864. Ent. Soc. Phila. Proc. 3: 689. ♀ ♂ 0.

potentillae var. **scutellaris** (Gillette). Ill.
Diastrophus scutellaris Gillette, 1891. Ill. State Lab. Nat. Hist. Bul. 3: 191. ♀.

Genus ANTISTROPHUS Walsh

Antistrophus Walsh, 1869. Amer. Ent. 2: 74.
Type: (***Antistrophus l. pisum*** Walsh)=***Antistrophus pisum*** Ashmead. Monob.
Asclepiadiphila Ashmead, 1897. Canad. Ent. 29: 263.
Type: (***Asclepiadiphila stephanotidis*** Ashmead)=***Antistrophus pisum*** Ashmead. Monob.

Produces galls on various composites: *Lygodesmia, Microseris, Silphium, Chrysothamnus.*

bicolor Gillette. Ill.
Antistrophus bicolor Gillette, 1891. Ill. State Lab. Nat. Hist. Bul. 3: 197. ♀.

chrysothamni (Beutenmueller), n. comb. Ariz. Gall on *Chrysothamnus* sp.
Aulax chrysothamni Beutenmueller, 1908. N. Y. Ent. Soc. Jour. 16: 45. ♀ ♂ 0.

laciniatus Gillette. Ill. Gall in flower heads of *Silphium laciniatum.*
Antistrophus laciniatus Gillette, 1891. Ill. State Lab. Nat. Hist. Bul. 3: 194. ♀ ♂ 0.

microseris (McCracken and Egbert), n. comb. Calif. Gall on *Microseris* sp.
Aylax microseris McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 45. ♀ 0.

minor Gillette. Ill. Bred from stems of *Silphium laciniatum.*
Antistrophus minor Gillette, 1891. Ill. State Lab. Nat. Hist. Bul. 3: 196. ♀ ♂ 0.
Aulax Gillettei Kieffer, 1902. Soc. Hist. Nat. Metz Bul. (2) 10: 95. N. name.

pisum Ashmead. Nebr., Colo., S. Dak., N. Dak., Wyo., Mo. Gall on *Lygodesmia juncea.*
Antistrophus l. pisum Walsh, 1869. Amer. Ent. 2: 73. ♀ ♂ 0. Tri.
Antistrophus pisum Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 294.
Asclephiadiphila stephanotidis Ashmead, 1897. Canad. Ent. 29: 263. ♀ ♂ 0.

rufus Gillette. Ill. Bred from stem of *Silphium laciniatum.*
Antistrophus rufus Gillette, 1891. Ill. State Lab. Nat. Hist. Bul. 3: 195. ♀ ♂ 0.

silphii Gillette. Ill., Nebr., Va. Stem gall on *Silphium perfoliatum* and *S. integrifolium.*

Antistrophus silphii Gillette, 1891. Ill. State Lab. Nat. Hist. Bul. 3: 192. ♀ ♂ 0.
Antistrophus leavenworthi Bassett, 1900. Amer. Ent. Soc. Trans. 26: 310. ♀ ♂ 0.

Genus DIASTROPHUS Hartig

Diastrophus Hartig, 1839 (1840). Germar Ztschr. f. Ent. 2: 186.
Type: *Diastrophus rubi* Hartig. Monob.

Produces galls on *Rubus, Fragaria, Potentilla.*

bassettii Beutenmueller. N. J. Gall on running blackberry.
Diastrophus bassettii Beutenmueller, 1892. Amer. Mus. Nat. Hist. Bul. 4: 248. ♂ 0.

cuscutaeformis Osten Sacken. R. I. west to Muskoka and Iowa, south to S. C. Gall on blackberry.
Diastrophus cuscutaeformis Osten Sacken, 1863. Ent. Soc. Phila. Proc. 2: 39. ♀ ♂ 0.

fragariae Beutenmueller. R. I., N. Y., Va., Ill., Ont. Gall on petiole of strawberry.
Diastrophus fragariae Beutenmueller, 1915. Canad. Ent. 47: 353. ♂ 0.
Taxonomy: Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 118, ♀.

fusiformans Ashmead. Colo. Gall on "*Potentilla.*"
Diastrophus fusiformans Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 13, 38. ♀ 0.

kincaidii Gillette. B. C. to Calif., Idaho. Gall on *Rubus nutkanus.*
Diastrophus kincaidii Gillette, 1893. Canad. Ent. 25: 110. ♀ ♂ 0.

kincaidii var. **austrior** Kinsey. Calif.
Diastrophus kincaidii var. *austrior* Kinsey, 1922. Ind. Univ. Studies 53: 54. ♀ ♂ 0.

minimus Bassett. Mass., Conn., N. J. Gall on *Potentilla canadensis.*
Diastrophus minimus Bassett, 1900. Amer. Ent. Soc. Trans. 26: 325. ♀ ♂ 0.

nebulosus (Osten Sacken). Ont. to Fla., west to Kans. Gall on blackberry stem.
Cynips (*Diastrophus* ?) *nebulosus* Osten Sacken, 1861. Stettin. Ent. Ztg. 22: 415. ♀ 0.

niger Bassett. D. C., N. Y., Mass., Mich., Ill., Mo., Ark. Gall on *Potentilla canadensis.*
Diastrophus niger Bassett, 1900. Amer. Ent. Soc. Trans. 26: 324. ♀ 0.

piceus Provancher. Ont. (Ottawa).
Diastrophus piceus Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 161. ♀ ♂.

radicum Bassett. Ont., N. Y., Conn., N. J., N. C. Gall on roots of *Rubus.*
Diastrophus radicum Bassett, 1870. Canad. Ent. 2: 98. ♀ ♂ 0.

smilacis Ashmead. Ill. Said to be from gall on *Smilax* (host questioned).
Diastrophus smilacis Ashmead, 1896. Amer. Ent. Soc. Trans. 19: 135. ♀ 0.

tumefactus Kinsey. Que., Ont. Gall on *Potentilla.*
Diastrophus tumefactus Kinsey, 1920. Amer. Mus. Nat. Hist. Bul. 42: 299. ♀ 0.

turgidus Bassett. Que., Ont., N. Y., Conn., Ind., Ill. Stem gall on red raspberry.
Diastrophus turdigus (!) Bassett, 1870. Canad. Ent. 2: 99. ♀ 0.

Genus LIPOSTHENES Foerster

Liposthenes Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 331, 336.
Type: (*Aulax Glechomae* Hartig)=[*Cynips*] *glechomae* (Linnaeus). Monob.

Produces gall on *Nepeta hederacea.*

glechomae (Linnaeus). Introduced European species. Maine to Ill.; south to Va.
Cynips Glechomae Linnaeus, 1758. Syst. Nat., Ed. 10, p. 553 (Reaum. Ins. 3: 460). ♀ 0.
Diastrophus similis Bassett, 1881. Canad. Ent. 13: 95. ♀ 0.
Aulax Latreillei Kieffer, 1898. Wien Ent. Ztg. 17: 257. ♀ ♂ 0. N. syn.

Genus AYLAX Hartig

Aylax Hartig, 1839 (1840). Germar Ztschr. f. Ent. 2: 195.
Type: *Cynips rhoeados* Bouché. Desig. by Ashmead, 1903.
Pseudaulax Ashmead, 1903. Psyche 10: 213.
Type: *Cynips hieracii* Linnaeus. Monob.

Produces galls on various composites.

hypochaeridis (Kieffer). Introduced into Wash. and Oreg. Gall on *Hypochaeris radicata.*
Aulax hypochaeridis Kieffer, 1887. Zool.-Bot. Gesell. Wien, Verh. 37: 205. ♀ 0.

5-costatus (Provancher). Ont. (Toronto).
Diastrophus 5-costatus Provancher, 1883. Nat. Canad. 14: 19. ♀ ♂.

Genus AULACIDEA Ashmead

Aulacidea Ashmead, 1897. Psyche 8: 68.
Type: *Aulax mulgediicola* Ashmead. Orig. desig.
Produces galls on various composites: *Lactuca, Prenanthes.*

abdita Kinsey. Que. From cells in pith of *Lactuca.*
Aulacidea abdita Kinsey, 1920. Amer. Mus. Nat. Hist. Bul. 42: 296. ♀ ♂ 0.

ambrosiaecola (Ashmead). Mo. (Kirkwood). Gall on *Ambrosia.*
Aulax ambrosiaecola Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 134. ♀ ♂ 0.

annulata Kinsey. Mass. (Sharon). Gall on *Lactuca.*
Aulacidea annulata Kinsey, 1920. Amer. Mus. Nat. Hist. Bul. 42: 298. ♀ ♂ 0.

harringtoni (Ashmead). Ont. to D. C. and Mo.
Aulax harringtoni Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 146. ♀.
Aulax bicolor Gillette, 1891. Ill. State Lab. Nat. Hist. Bul. 3 (1): 201. ♀.
Aulax mulgediicola Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 133. ♀ ♂ 0
Aulax cavicola Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 134. ♀.

nabali (Brodie). Que. to Ill.; south to Va., N. C. Gall on *Prenanthes.*
Aulax nabali Brodie, 1892. Canad. Ent. 24: 12. ♀ ♂ 0.

podagrae (Bassett). N. Y., Pa., Ill., Mo., Va. Gall on *Lactuca spicata.*
Aulax podagrae Bassett, 1890. Amer. Ent. Soc. Trans. 17: 91. ♀ ♂ 0.

tumida (Bassett). Ont. to Ill.; south to Va. Gall on *Lactuca canadensis.*
Aulax tumidus Bassett, 1890. Amer. Ent. Soc. Trans. 17: 92. ♀ ♂ 0.
Aulax sonchicola Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 134. ♀ ♂ 0.
Aulacidea solidaginis Girault, 1903. Ent. News 14: 323. ♀ ♂ 0.

Genus GILLETTEA Ashmead

Gillettea Ashmead, 1897. Psyche 8: 69.
Type: *Gillettea taraxaci* Ashmead. Monob.

taraxaci Ashmead. Minn., Iowa, Ill., N. Y., Ont. Galls on *Taraxacum officinale.*
Gillettea taraxaci Ashmead, 1897. Psyche 8: 69. ♀ ♂ 0.

Genus DIPLOLEPIS Geoffroy

Diplolepis Geoffroy, 1762. Hist. Ins., v. 2, p. 308.
Type: *Cynips rosae* Linnaeus. Desig. by Karsch, 1880.
Rhodites Hartig, 1839 (1840). Germar Ztschr. f. Ent. 2: 186.
Type: *Cynips rosae* Linnaeus. Desig. by Foerster, 1869.
Hololexis Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 330, 333.
Type: *Hololexis rufipes* Foerster. Monob.

Tribalia Walsh, 1864. Ent. Soc. Phila. Proc. 2: 470.
Type: ***Tribalia batatorum*** Walsh. Monob.
Lytorhodites Kieffer, 1902. Soc. Hist. Nat. Metz Bul. (2) 10: 96.
Type: ***Rhodites arefactus*** Gillette. Desig. by Rohwer and Fagan, 1917.

Produces galls on rose.

arefacta (Gillette). Ariz., Utah, Nev., Wash., Colo.
Rhodites arefactus Gillette, 1894. Canad. Ent. 26: 157. ♀ ♂ 0.

ashmeadi (Beutenmueller). Oreg.
Rhodites ashmeadi Beutenmueller, 1918. Canad. Ent. 50: 306. ♀ 0.

bassetti (Beutenmueller). Oreg.
Rhodites bassetti Beutenmueller, 1918. Canad. Ent. 50: 307. ♀ ♂ 0.

bassetti var. **lucida** Kinsey. Idaho.
Diplolepis bassetti var. ***lucida*** Kinsey, 1922. Ind. Univ. Studies 53: 57. ♀ ♂ 0.

bicolor (Harris). Maine to Ill.; south to Va.
Cynips bicolor Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 399. ♀ ♂ 0.

californica (Beutenmueller). Calif.
Rhodites californicus Beutenmueller, 1914. Brooklyn Ent. Soc. Bul. 9: 88. ♀ ♂ 0.

dichlocerus (Harris). Ont. to Ill.; south to Va.
Cynips dichlocerus Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 399. ♀ ♂ 0.

fulgens (Gillette). S. Dak.
Rhodites fulgens Gillette, 1894. Canad. Ent. 26: 159. ♀.

fusiformans (Ashmead). Colo., Nebr., Ariz., Ill., Ont.
Rhodites fusiformans Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 14. ♀ ♂ 0.

fusiformans var. **mendocinensis** Kinsey. Calif.
Diplolepis fusiformans var. ***mendocinensis*** Kinsey, 1922. Ind. Univ. Studies 53: 62. ♀ ♂ 0.

fusiformans var. **minuta** Kinsey. Calif.
Diplolepis fusiformans var. ***minuta*** Kinsey, 1922. Ind. Univ. Studies 53: 61. ♀ ♂ 0.

gracilis (Ashmead). Utah, Wis., Ill., Ont., N. Y., Mass., Conn.
Rhodites gracilis Ashmead, 1897. U. S. Natl. Mus. Proc. 19: 135. ♀ ♂ 0.

ignota (Osten Sacken). Ont. to Ill.; south to Va.
Rhodites ignota Osten Sacken, 1863. Ent. Soc. Phila. Proc. 2: 45, 49, 63. ♀ ♂ 0.
Rhodites carolina Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 133, 148. ♀ 0.

mayri (Schlechtendal), n. comb. Europe. On introduced rose in N. J.
Rhodites mayri Schlechtendal, 1877 (1876). Jahresber. Ver. Zwickau, p. 59. ♀ 0.

multispinosa (Gillette). Ohio, Man., Sask., Alta., Minn., Wis., Ill.
Rhodites spinosa Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 134. Gall only.
Rhodites spinosissima Gillette, 1889. Iowa Agr. Expt. Sta. Bul. 7: 284. Preocc.
Rhodites multispinosa Gillette, 1890. Ent. Amer. 6: 25. ♀ ♂ 0. N. name.

nebulosa (Bassett). Conn., N. Y., N. J., Ont., Ill.
Rhodites nebulosus Bassett, 1890. Amer. Ent. Soc. Trans. 17: 63. ♀ 0.

neglecta (Gillette). Colo.
Rhodites neglectus Gillette, 1894. Canad. Ent. 26: 158. ♀ ♂ 0.

nodulosa (Beutenmueller). Mass., Ill.
Rhodites nodulosus Beutenmueller, 1909. Ent. News 20: 247. ♀ 0.

occidentalis (Beutenmueller). Calif.
Rhodites occidentalis Beutenmueller, 1922. Brooklyn Ent. Soc. Bul. 17: 45. ♀ ♂ 0.

oregonensis (Beutenmueller). Oreg.
Rhodites oregonensis Beutenmueller, 1918. Canad. Ent. 50: 305. ♀ 0.

ostensackeni (Beutenmueller). Oreg.
Rhodites ostensackeni Beutenmueller, 1918. Canad. Ent. 50: 307. ♀ 0.

polita (Ashmead). Calif.
Rhodites polita Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 14. ♀ ♂ 0.

pustulatoides (Beutenmueller). Ind.
Rhodites pustulatoides Beutenmueller, 1914. Brooklyn Ent. Soc. Bul. 9: 89. ♀ ♂.

radicum (Osten Sacken). D. C., Va., N. J., N. Y., Mass., Ont. Gall on roots of *Rosa carolina.*
Rhodites radicum Osten Sacken, 1863. Ent. Soc. Phila. Proc. 2: 42, 45, 46. ♀ ♂ 0.
Tribalia batatorum Walsh, 1864. Ent. Soc. Phila. Proc. 2: 470. ♀.

radicum var. **angustior** Hunter. Utah.
Diplolepis radicum var. ***angustior*** Hunter, 1923. Psyche 30: 173. ♀ ♂.

radicum var. **divergens** Kinsey. Wash.
Diplolepis radicum var. ***divergens*** Kinsey, 1922. Ind. Univ. Studies 53: 70. ♀ ♂.

radicum var. **johnsoni** Kinsey. Mass.
Diplolepis radicum var. ***johnsoni*** Kinsey, 1922. Ind. Univ. Studies 53: 67. ♀ ♂.

radicum var. **plana** Kinsey. Oreg.
Diplolepis radicum var. ***plana*** Kinsey, 1922. Ind. Univ. Studies 53: 70. ♀.

rosae (Linnaeus). Introduced. Que. to Kans.; south to Va. On sweetbriar rose.
Cynips rosae Linnaeus, 1758. Syst. Nat., Ed. 10, p. 553. ♀ 0.

rosaefolii (Cockerell). Ont., N. Y., Mich., Ill., Ohio.
Rhodites rosaefolii Cockerell, 1889. Ent. Monthly Mag. 25: 324, 363. ♀ 0.
Rhodites lenticularis Bassett, 1890. Amer. Ent. Soc. Trans. 17: 59. ♀ ♂ 0.

rubicola (Kieffer), n. comb. "Probably from North America."
Rhodites rubicola Kieffer, 1906. Marcellia 5: 101. ♀ 0.

similis (Ashmead). Wyo.
Rhodites similis Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 136. ♀ ♂ 0.

tuberculator (Cockerell). Colo.
Rhodites tuberculator Cockerell, 1888. West. Amer. Sci. 4: 60. ♀ 0.

tuberculator var. **coloradensis** Kinsey and Ayres. Colo.
Diplolepis tuberculatrix var. ***coloradensis*** form ***coloradensis*** Kinsey and Ayres, 1922. Ind. Univ. Studies 53: 147. ♀ ♂ 0.

tuberculator var. **coloradensis** form **subcoloradensis** Kinsey and Ayres. Colo.
Diplolepis tuberculatrix var. ***coloradensis*** form ***subcoloradensis*** Kinsey, and Ayres, 1922. Ind. Univ. Studies 53: 150. ♀.

tuberculator var. **descansonis** Kinsey and Ayres. Calif.
Diplolepis tuberculatrix var. ***descansonis*** Kinsey and Ayres, 1922. Ind. Univ. Studies 53: 159. ♀ ♂.

tuberculator var. **melanderi** Kinsey and Ayres. Wash.
Diplolepis tuberculatrix var. ***melanderi*** Kinsey and Ayres, 1922. Ind. Univ. Studies 53: 156. ♀ ♂ 0.

tuberculator var. **rubriderma** Kinsey and Ayres. Calif.
Diplolepis tuberculatrix var. ***rubriderma*** Kinsey and Ayres, 1922. Ind. Univ. Studies 53: 157. ♀ ♂ 0.

tuberculator var. **sierranensis** Kinsey and Ayres. Calif.
Diplolepis tuberculatrix var. ***sierranensis*** Kinsey and Ayres, 1922. Ind. Univ. Studies 53: 158. ♀ ♂.

tuberculator var. **versicolor** Kinsey and Ayres. Oreg.
Diplolepis tuberculatrix var. ***versicolor*** Kinsey and Ayres, 1922. Ind. Univ. Studies 53: 156. ♀.

tuberculator var. **wasatchensis** Kinsey and Ayres. Utah.
Diplolepis tuberculatrix var. ***wasatchensis*** Kinsey and Ayres, 1922. Ind. Univ. Studies 53: 153. ♀ ♂ 0.

tumida (Bassett). Utah.
Rhodites tumidus Bassett, 1890. Amer. Ent. Soc. Trans. 17: 60. ♀ ♂ 0.

tumida form **xerophila** Kinsey and Ayres. Utah.
Diplolepis tuberculatrix var. ***tumida***, form ***xerophila*** Kinsey and Ayres, 1922. Ind. Univ. Studies 53: 151. ♀ ♂ 0.

utahensis (Bassett). Utah, Colo., N. Dak., Ill., Wash., Man., Sask.
Rhodites utahensis Bassett, 1890. Amer. Ent. Soc. Trans. 17: 62. ♀ ♂ 0.

variabilis (Bassett). Utah, Ariz., N. Mex., N. Dak., Oreg., Wash.
Rhodites variabilis Bassett, 1890. Amer. Ent. Soc. Trans. 17: 61. ♀ ♂ 0.
Rhodites globuloides Beutenmueller, 1907. Amer. Mus. Nat. Hist. Bul. 23: 638. ♀. N. syn.

variabilis var. **lutescens** Kinsey. Colo.
Diplolepis variabilis var. ***lutescens*** Kinsey, 1922. Ind. Univ. Studies 53: 77. ♀ ♂.

variabilis var. **rufopicea** Kinsey. Colo.
Diplolepis variabilis var. ***rufopicea*** Kinsey, 1922. Ind. Univ. Studies 53: 76. ♀ ♂.

variabilis var. **sculpta** Kinsey. Utah.
Diplolepis variabilis var. ***sculpta*** Kinsey, 1922. Ind. Univ. Studies 53: 75. ♀ ♂.

verna (Osten Sacken). D. C.
Rhodites verna Osten Sacken, 1863. Ent. Soc. Phila. Proc. 2: 41, 45, 47. ♀ ♂ 0.

weldi (Beutenmueller). Calif.
Rhodites weldi Beutenmueller, 1913. Insecutor Inscitiae Menstruus 1: 93. ♂ 0.

Genus NEUROTERUS Hartig

Neuroterus Hartig, 1839 (1840). Germar Ztschr. f. Ent. 2: 185, 192.
Type: ***Neuroterus politus*** Hartig. Desig. by Ashmead, 1903.
Spathegaster Hartig, 1839 (1840). Germar Ztschr. f. Ent. 2: 186.
Type: ***Spathegaster petioliventris*** Hartig. Monob.
Ameristus Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 330, 333.
Type: ***Neuroterus politus*** Hartig. Desig. by Rohwer and Fagan, 1917.
Dolichostrophus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 129 (footnote).
Type: ***Cynips irregularis*** Osten Sacken. Monob.
Neospathegaster Kinsey, 1923. Ind. Univ. Studies 58: 28, 35, 121.
Type: ***Cynips vesicula*** Bassett. Monob.
Diplobius Kinsey, 1923. Ind. Univ. Studies 58: 27, 28–31, 35.
Type: ***Cynips floccosa*** Bassett. Orig. desig.
Pseudoneuroterus Kinsey, 1923. Ind. Univ. Studies 58: 28, 130.
Type: ***Cynips macropterus*** Hartig. Orig. desig.
Revisions: Beutenmueller, 1910. Amer. Mus. Nat. Hist. Bul. 28: 117–136.—Kinsey, 1923. Ind. Univ. Studies 58: 1–150. (Recognizes 6 subgenera, 3 in American fauna—*Diplobius*, *Dolichostrophus*, and *Neospathegaster*.)

Produces galls on white oaks only.

Species arranged alphabetically. Kinsey assignment to subgenus in parenthesis.

affinis (Bassett). (***Neospathegaster***) Conn. Gall on *Quercus prinoides*.
Cynips affinis Bassett, 1881. Canad. Ent. 13: 103. ♀ ♂ 0.

argentatus Weld. Ariz. Gall on *Quercus gambelii*.
Neuroterus argentatus Weld, 1944. U. S. Natl. Mus. Proc. 95: 2. ♀ 0.

bassettii Dalla Torre. (***Diplobius***) Conn. Gall on *Quercus alba*.
Neuroterus pallipes Bassett, 1890. Amer. Ent. Soc. Trans. 17: 89. ♀ ♂ 0. Preocc.
Neuroterus bassettii Dalla Torre, 1892. Wien. Ent. Ztg. 11: 131. N. name.

clarkeae Beutenmueller. (***Dolichostrophus***) Mass. Gall on *Quercus alba*.
Neuroterus clarkeae Beutenmueller, 1910. Amer. Mus. Nat. Hist. Bul. 28: 132. ♀ ♂ 0.

clavensis Weld. Ariz., N. Mex., Colo. Gall on *Quercus gambelii*.
Neuroterus clavensis Weld, 1944. U. S. Natl. Mus. Proc. 95: 3. ♀ 0.

cockerelli Beutenmueller. Colo.
Neuroterus cockerelli Beutenmueller, 1910. Amer. Mus. Nat. Hist. Bul. 28: 125. ♀ 0.

congregatus Gillette. (***Dolichostrophus***) Colo.
Neuroterus congregatus Gillette, 1893. Ent. News 4: 166. ♂ 0.

consimilis Bassett. (***Dolichostrophus***) Conn. Gall on *Quercus alba*.
Neuroterus consimilis Bassett, 1900. Amer. Ent. Soc. Trans. 26: 335. ♀ 0.

contortus (Weld), agamic gen. (***Dolichostrophus***) Tex. Gall on *Quercus breviloba*.
Xystoteras contorta Weld, 1921. U. S. Natl. Mus. Proc. 59: 191, 209. ♀ 0.

contortus (Weld), sex. gen. (***Dolichostrophus***) Tex.
Neuroterus contortus, bisexual form ***principalis*** Kinsey, 1923. Ind. Univ. Studies 58: 92. ♀ ♂ 0.

cupulae Kinsey. (***Dolichostrophus***) Calif. Gall on *Quercus lobata*.
Neuroterus cupulae Kinsey, 1922. Ind. Univ. Studies 53: 99. ♀ 0.

decipiens Kinsey. (***Dolichostrophus***) Calif. Gall on *Quercus douglasii*.
Neuroterus decipiens Kinsey, 1922. Amer. Mus. Nat. Hist. Bul. 46: 292. ♀ ♂ 0.

distortus Bassett. (***Diplobius***) Conn., N. J., N. Y., Ill. Gall on *Quercus bicolor*.
Neuroterus distortus Bassett, 1900. Amer. Ent. Soc. Trans. 26: 336. ♀ ♂ 0.

dubius Bassett. (***Dolichostrophus***) Conn. Gall on *Quercus stellata*.
Neuroterus dubia Bassett, 1900. Amer. Ent. Soc. Trans. 26: 335. ♀ ♂.

dubius var. **digressus** Kinsey. (***Dolichostrophus***) Calif.
Neuroterus dubius var. ***digressus*** Kinsey, 1923. Ind. Univ. Studies 58: 32, 96. ♀.

engelmanni Kinsey. (***Diplobius***) Calif. Gall on *Quercus engelmanni*.
Neuroterus engelmanni Kinsey, 1922. Amer. Mus. Nat. Hist. Bul. 46: 293. ♀ 0.

escharensis Weld. Ill. Gall on *Quercus bicolor*.
Neuroterus escharensis Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 5. ♀ 0.

evanescens Kinsey. (***Diplobius***) Tex. Gall on *Quercus breviloba*.
Neuroterus evanescens Kinsey, 1922. Ind. Univ. Studies 53: 100. ♀ ♂ 0.

evolutus Weld. Calif. Gall on *Quercus lobata*.
Neuroterus evolutus Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 6. ♀ 0.

exiguissimus Bassett. (***Diplobius***) Conn., N. J., N. Y., Mass., Va. Gall on *Quercus alba*.
Neuroterus exiguissimus Bassett, 1900. Amer. Ent. Soc. Trans. 26: 332. ♀ 0.

exiguus Bassett. (***Diplobius***) Conn., N. Y., N. J., Va. Gall on *Quercus stellata*.
Neuroterus exiguus Bassett, 1900. Amer. Ent. Soc. Trans. 26: 333. ♀ ♂ 0.

floccosus (Bassett). (***Diplobius***) Ont. to Ill.; south to Va. Gall on *Quercus bicolor*.
Cynips floccosa Bassett, 1881. Canad. Ent. 13: 111. ♀ 0.
Neuroterus verrucarum var. ***pernotus*** Kinsey, 1923. Ind. Univ. Studies 58: 30, 74. ♀ 0. N. syn.

floricola Kinsey. (***Diplobius***) Calif. Gall on *Quercus douglasii*.
Neuroterus floricola Kinsey, 1922. Ind. Univ. Studies 53: 101. ♀ ♂ 0.

fragilis Bassett. (***Dolichostrophus***) Calif. Gall on *Quercus douglasii*.
Neuroterus fragilis Bassett, 1900. Amer. Ent. Soc. Trans. 26: 335. ♀ ♂ 0.
Neuroterus pacificus Beutenmueller, 1918. Brooklyn Ent. Soc. Bul. 13: 119. ♀ ♂ 0.

fugiens Weld. Ill. Gall on *Quercus macrocarpa.*
Neuroterus fugiens Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 12. ♀ ♂ 0.

gillettei Bassett. (*Diplobius*) Conn., Va. Gall on *Quercus stellata.*
Neuroterus Gillettei Bassett, 1900. Amer. Ent. Soc. Trans. 26: 334. ♀ ♂ 0.

howertoni Bassett. (*Diplobius*) N. Mex., Ariz. Gall on *Quercus oblongifolia, Q. arizonica.*
Neuroterus howertoni Bassett, 1890. Amer. Ent. Soc. Trans. 17: 90. ♀ 0.

irregularis (Osten Sacken). (*Dolichostrophus*) N. Y. to Mo., Tex. Gall on *Quercus stellata.*
Cynips quercus irregularis Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 65. ♂ 0. Tri.
Cynips irregularis Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 340, 344, 349, 353, 379.

irregularis var. **albipleurae** Kinsey. (*Dolichostrophus*) Tex. Gall on *Quercus breviloba.*
Neuroterus irregularis var. *albipleurae* Kinsey, 1923. Ind. Univ. Studies 58: 14, 34, 99. ♀ 0.

irregularis var. **variegatus** Kinsey. (*Dolichostrophus*) Okla. Gall on *Quercus stellata.*
Neuroterus irregularis var. *variegatus* Kinsey, 1923. Ind. Univ. Studies 58: 14, 35, 102. ♀ ♂.

majalis (Osten Sacken). (*Dolichostrophus*) Ont. to Fla.; west to Ill., Mo. Gall On *Quercus alba.*
Cynips q. majalis Bassett, 1864. Ent. Soc. Phila. Proc. 3: 682. ♀ ♂ 0. Tri.
Cynips majalis Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 353.

minutissimus Ashmead. (*Diplobius*) Fla. Gall on *Quercus virginiana.*
Cynips q. minutissima Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. vii. ♀ 0. Tri.
Neuroterus minutissimus Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 296.

minutus (Bassett). (*Dolichostrophus*) Conn., Mass., Pa., Va., Ont. Gall on *Quercus alba.*
Cynips minuta Bassett, 1881. Canad. Ent. 13: 96. ♀ ♂ 0.

niger Gillette. (*Diplobius*) Mich., Mass., Iowa, Wis. Gall. on *Quercus macrocarpa.*
Neuroterus nigrum Gillette, 1888. Mich. State Bd. Agr. Rpt. 27: 475. ♀ 0.

niger var. **alimas** Kinsey. (*Diplobius*) Tex. Gall on *Quercus virginiana.*
Neuroterus niger var. *alimas* Kinsey, 1923. Ind. Univ. Studies 58: 30, 42. ♀ ♂ 0.

niger var. **arizonicae** Kinsey. (*Diplobius*) Ariz. Gall on *Quercus arizonica.*
Neuroterus niger var. *arizonicae* Kinsey, 1923. Ind. Univ. Studies 58: 30, 43. ♀ 0.

niger var. **griseae** Kinsey. (*Diplobius*) Tex. Gall on *Quercus grisea.*
Neuroterus niger var. *griseae* Kinsey, 1923. Ind. Univ. Studies 58: 31, 44. ♀ 0.

niger var. **nigripes** Kinsey. (*Diplobius*) Tex. Gall on *Quercus stellata, Q. breviloba.*
Neuroterus niger var. *nigripes* Kinsey, 1923. Ind. Univ. Studies 58: 14, 31, 45. ♀ 0.

niger var. **pattersoni** Kinsey, sex. gen. (*Diplobius*) Tex. Gall on *Quercus stellata.*
Neuroterus niger var. *pattersoni* Kinsey, 1923. Ind. Univ. Studies 58: 14, 31, 47. ♀ ♂ 0.

niger var. **pattersoni** Kinsey, agamic gen. (*Diplobius*) Tex. Gall on *Quercus breviloba.*
Neuroterus niger var. *pattersoni,* agamic form *hiemalis* Kinsey, 1923. Ind. Univ. Studies 58: 47. ♀.

noxiosus (Bassett), sex. gen. (*Dolichostrophus*) Conn. Gall on *Quercus bicolor.*
Cynips noxiosus Bassett, 1881. Canad. Ent. 13: 108. ♀ ♂ 0.
Neuroterus noxiosus form *vernalis* Kinsey, 1920. Amer. Mus. Nat. Hist. Bul. 42: 337. ♀ ♂ 0.

noxiosus (Bassett), agamic gen. (***Dolichostrophus***) Mass. to Ill.; south to W. Va. Gall on *Quercus bicolor.*
Cynips noxiosus Bassett, 1881. Canad. Ent. 13: 108. ♀ 0.

pallidus Bassett. (***Dolichostrophus***) Conn., N. Y., N. J. Gall on *Quercus bicolor.*
Neuroterus pallidus Bassett, 1890. Amer. Ent. Soc. Trans. 17: 88. ♀ ♂ 0.

papillosus Beutenmueller. (***Diplobius***) N. Y., N. J., Ind., Ill. Gall on *Quercus bicolor.*
Neuroterus papillosus Beutenmueller, 1910. Amer. Mus. Nat. Hist. Bul. 28: 121. ♀ ♂ 0.

perminimus Bassett. (***Diplobius***) Ohio, Ill., Ont., N. Y., Md., Va. Gall on *Quercus alba.*
Neuroterus perminimus Bassett, 1900. Amer. Ent. Soc. Trans. 26: 332. ♀ ♂ 0.

quercicola Dalla Torre. (***Dolichostrophus***) Utah.
Neuroterus politus Bassett, 1890. Amer. Ent. Soc. Trans. 17: 89. ♂ 0. Preocc.
Neuroterus quercicola Dalla Torre, 1892. Wien. Ent. Ztg. 11: 131. N. name.

quercicola var. **pubescens** Kinsey. (***Dolichostrophus***) Ariz.
Neuroterus quercicola var. ***pubescens*** Kinsey, 1923. Ind. Univ. Studies 58: 114. ♀ 0.

quercus-batatus (Fitch), sex. gen. (***Dolichostrophus***) Conn., Ont. to Ill.; south to Fla. Gall on *Quercus alba.*
Cynips Quercus-batatus Fitch, 1859 (1858). N. Y. State Agr. Soc. Trans. 18: 810. ♀ ♂.
Cynips q. batatus Fitch, 1864. *In* Bassett, Ent. Soc. Phila. Proc. 3: 684. ♀ ♂ 0.
Neuroterus batatus form ***bisexualis*** Kinsey, 1920. Amer. Mus. Nat. Hist. Bul. 42: 334. ♀ ♂ 0.

quercus-batatus var. **prini** Kinsey, sex. gen. (***Dolichostrophus***) R. I.
Neuroterus batatus var. ***prini,*** bisexual form ***prini*** Kinsey, 1923. Ind. Univ. Studies 58: 33, 88. ♀.

quercus-batatus var. **prini** Kinsey, agamic gen. (***Dolichostrophus***) R. I.
Neuroterus batatus var. ***prini,*** agamic form ***deprini*** Kinsey, 1923. Ind. Univ. Studies 58: 89. ♀.

rileyi Ashmead. (***Dolichostrophus***) Ohio, Ind., Mo., Okla., Va. Gall on *Quercus muehlenbergii.*
Cynips q. rileyi Bassett, 1881. Amer. Nat. 15: 149. ♀ 0. Tri.
Neuroterus Rileyi Mayr, 1881. Genera Gallenbew. Cynip., p. 37. Nom. nud.
Neuroterus Rileyi Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 296.

rileyi var. **atripleurae** Kinsey. (***Dolichostrophus***) Okla. Gall on *Quercus prinus.*
Neuroterus rileyi var. ***atripleurae*** Kinsey, 1923. Ind. Univ. Studies 58: 32, 118. ♀ 0.

rileyi var. **mutatus** Kinsey. (***Dolichostrophus***) Tex. Gall on *Quercus muehlenbergii.*
Neuroterus rileyi var. ***mutatus*** Kinsey, 1923. Ind. Univ. Studies 58: 20, 32, 118. ♀ 0.

rileyi var. **thompsoni** Kinsey. (***Dolichostrophus***) Mass. Gall on *Quercus prinoides.*
Neuroterus thompsoni Kinsey, 1920. Amer. Mus. Nat. Hist. Bul. 42: 301. ♀ ♂ 0.
Neuroterus rileyi var. ***thompsoni*** Kinsey, 1923. Ind. Univ. Studies 58: 32, 120.

sadlerensis Weld. Oreg. Gall on *Quercus sadleriana.*
Neuroterus sadlerensis Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 9. ♀ ♂ 0.

saltarius Weld. Ind., Mich., Iowa, Minn., Mo. Gall on *Quercus macrocarpa.*
Neuroterus saltarius Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 11. ♀ 0.

saltatorius (H. Edwards). (***Diplobius***) Calif. Gall on *Quercus lobata.*
Cynips Saltatorius H. Edwards, 1874. Pacific Rural Press 7: 97. ♀ 0.

saltatorius var. **australis** Kinsey. (*Diplobius*) Tex. Gall on *Quercus stellata.*
Neuroterus saltatorius var. *australis* Kinsey, 1923. Ind. Univ. Studies 58: 31, 51. ♀ 0.

saltatorius var. **decrescens** Kinsey. (*Diplobius*) Ariz. Gall on *Quercus arizonica.*
Neuroterus saltatorius var. *decrescens* Kinsey, 1923. Ind. Univ. Studies 58: 31, 52. ♀ 0.

saltatorius var. **texanus** Kinsey. (*Diplobius*) Tex. Gall on *Quercus virginiana.*
Neuroterus saltatorius var. *texanus* Kinsey, 1923. Ind. Univ. Studies 58: 31, 56. ♀ 0.

tectus Bassett, agamic gen. (*Diplobius*) Conn., Mass., R. I., N. Y. Gall on *Quercus prinoides.*
Neuroterus tectus Bassett, 1900. Amer. Ent. Soc. Trans. 26: 331. ♀ ♂ 0.
Neuroterus tectus form *abundans* Kinsey, 1920. Amer. Mus. Nat. Hist. Bul. 42: 339. ♀.

umbilicatus Bassett. (*Diplobius*) Conn., N. J., Va., N. Y., Ont. Gall on *Quercus bicolor.*
Neuroterus umbilicatus Bassett, 1900. Amer. Ent. Soc. Trans. 26: 330. ♀ 0.

varians Kinsey. (*Dolichostrophus*) Calif. Gall on *Quercus lobata.*
Neuroterus varians Kinsey, 1922. Amer. Mus. Nat. Hist. Bul. 46: 294. ♀ 0.

vernus Gillette. (*Diplobius*) Iowa. Gall on *Quercus macrocarpa.*
Neuroterus verna Gillette, 1889. Iowa Agr. Expt. Sta. Bul. 7: 281. ♀ 0.

verrucarum (Osten Sacken). (*Diplobius*) N. Y. to Fla.; west to Okla. Gall on *Quercus stellata.*
Cynips quercus verrucarum Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 62. ♀ 0. Tri.
Cynips verrucarum Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 354.

verrucarum var. **inficiens** Kinsey. (*Diplobius*) Tex. Gall on *Quercus breviloba.*
Neuroterus verrucarum var. *inficiens* Kinsey, 1923. Ind. Univ. Studies 58: 14, 30, 71. ♀ 0.

verrucarum var. **macrocarpae** Kinsey. (*Diplobius*) Tex. Gall on *Quercus macrocarpa.*
Neuroterus verrucarum var. *macrocarpae* Kinsey, 1923. Ind. Univ. Studies 58: 30, 72. ♀ 0.

verrucarum var. **opacus** Kinsey. (*Diplobius*) Tex. Gall on *Quercus stellata, Q. breviloba.*
Neuroterus verrucarum var. *opacus* Kinsey, 1923. Ind. Univ. Studies 58: 14, 15, 30, 73. ♀ 0.

verrucarum var. **pulvinus** Kinsey. (*Diplobius*) Tex. Gall on *Quercus stellata.*
Neuroterus verrucarum var. *pulvinus* Kinsey, 1923. Ind. Univ. Studies 58: 11, 15, 30, 75. ♀ 0.

verrucarum var. **restrictus** Kinsey. (*Diplobius*) Fla. Gall on *Quercus chapmani.*
Neuroterus verrucarum var. *restrictus* Kinsey, 1923. Ind. Univ. Studies 58: 14, 30, 77. ♀ 0.

vesicula (Bassett). (*Neospathegaster*) Ont. to Ill.; south to Va. Gall on *Quercus alba.*
Cynips vesicula Bassett, 1881. Canad. Ent. 13: 97. ♀ ♂ 0.

vesicula var. **cerinus** Kinsey. (*Neospathegaster*) Tex. Gall on *Quercus stellata.*
Neuroterus vesicula var. *cerinus* Kinsey, 1923. Ind. Univ. Studies 58: 15, 35, 125. ♀ ♂ 0.

vesicula var. **ocularis** Kinsey. (*Neospathegaster*) Tex. Gall on *Quercus stellata.*
Neuroterus vesicula var. *ocularis* Kinsey, 1923. Ind. Univ. Studies 58: 15, 35, 126. ♀ ♂ 0.

virgens Gillette. (*Dolichostrophus*) Colo.
Neuroterus virgens Gillette, 1895. Ent. News 4: 166. ♀ ♂ 0.

washingtonensis Beutenmueller. (*Dolichostrophus*) Wash. Gall on *Quercus garryana.*
Neuroterus washingtonensis Beutenmueller, 1913. Canad. Ent. 45: 280. ♀ ♂ 0.

Genus TRICHOTERAS Ashmead

Trichoteras Ashmead, 1897. Psyche 8: 67.
Type: *Trichoteras coquilletti* Ashmead. Monob.

californicum (Beutenmueller), n. comb. Calif. Gall on *Quercus dumosa.*
Philonix californica Beutenmueller, 1911. Ent. News 22: 69. ♀ 0.

coquilletti Ashmead. Calif. Gall on *Quercus chrysolepis.*
Trichoteras coquilletti Ashmead, 1897. Psyche 6: 68. ♀ 0.

frondeum Weld. Calif. Gall on *Quercus chrysolepis.*
Trichoteras frondeum Weld, 1944. U. S. Natl. Mus. Proc. 95: 4. ♀ 0.

tubifaciens (Weld), n. comb. Calif. Gall on *Quercus garryana.*
Xanthoteras tubifaciens Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 53. ♀ 0.

vaccinifoliae (Ashmead), n. comb. Calif. Gall on *Quercus vaccinifolia.*
Callirhytis vacciniifoliae (!) Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 130. ♀ 0.

Genus PHYLLOTERAS Ashmead

Phylloteras Ashmead, 1897. Psyche 8: 67.
Type: *Biorhiza rubinus* Gillette. Monob.

cupella (Weld), n. comb. N. Mex., Ariz. Gall on *Quercus arizonica.*
Trigonaspis cupella Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 50. ♀ 0.

rubinum (Gillette). Mich., Ill., Mo., N. Y., Md., Va., N. C. Gall on *Quercus alba.*
Biorhiza rubinus Gillette, 1888. Mich. State Bd. Agr. Rpt. 27: 472. ♀ 0.

sigma Weld. Va., Md., D. C., N. Y. Gall on *Quercus alba.*
Phylloteras sigma Weld, 1944. U. S. Natl. Mus. Proc. 95: 5. ♀ 0.

Genus XYSTOTERAS Ashmead

Xystoteras Ashmead, 1897. Canad. Ent. 29: 260.
Type: *Xystoteras volutellae* Ashmead. Monob.

nigrum (Fitch). N. Y., Mo.
Biarhiza (!) *nigra* Fitch, 1859 (1858). N. Y. State Agr. Soc. Trans. 18: 782. ♀.
Acraspis politus Bassett, 1890. Amer. Ent. Soc. Trans. 17: 85. ♀.

poculum Weld. Mo., Ill., N. Y., Vt., N. H., Va. Gall on *Quercus alba.*
Xystoteras poculum Weld, 1922. U. S. Natl. Mus. Proc. 61 (18): 7. ♀ 0.

volutellae Ashmead. Kans. Gall on *Quercus macrocarpa.*
Xystoteras volutellae Ashmead, 1897. Canad. Ent. 29: 260. ♀ 0.

Genus XANTHOTERAS Ashmead

Agamic Generation

Xanthoteras Ashmead, 1897. Canad. Ent. 29: 261.
Type: (*Biorhiza forticornis* Walsh)=*Xanthoteras forticorne* (Osten Sacken). Monob. and orig. desig.

eburneum (Bassett), n. comb. Utah, Ariz., N. Mex., Colo. Gall on *Quercus gambelii, Q. undulata.*
Dryophanta eburneus Bassett, 1890. Amer. Ent. Soc. Trans. 17: 10. ♀ 0.
Dryophanta similis Bassett, 1890. Amer. Ent. Soc. Trans. 17: 71. ♀ 0. Preocc. N. syn.
Dryophanta simillima Dalla Torre, 1893. Cat. Hym., v. 2, p. 54. N. name. N. syn.
Dryophanta glabra Gillette, 1894. Canad. Ent. 26: 237. ♀ 0.

emoryi (Ashmead), n. comb. N. Mex. Gall on oak (not *Quercus emoryi*).
Dryophanta emoryi Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 115. ♀ 0.

forticorne (Osten Sacken). N. H. to Minn.; south to Va. Gall on *Quercus alba.*
Cynips q. forticornis Walsh, 1864. Ent. Soc. Phila. Proc. 2: 498. ♀ 0. Tri.
Cynips (Teras) forticornis Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 340, 350, 353.
Taxonomy: Fitch, 1859 (1858). N. Y. State Agr. Soc. Trans. 18: 812. Gall described.

mediocre Weld. Ariz. Gall on *Quercus subturbinella.*
Xanthoteras mediocre Weld, 1930. Ent. Soc. Wash. Proc. 32: 30. ♀ 0.

politum (Bassett), n. comb. Atlantic and Gulf coast plains, Okla., Mo. Gall on *Quercus stellata, Q. chapmani.*
Cynips polita Bassett, 1881. Canad. Ent. 13: 99. ♀ 0.

pulchripenne (Ashmead), n. comb. Ariz., N. Mex. Gall on several white oaks.
Dryophanta pulchripennis Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 115. ♀ 0.
Dryophanta porterae Cockerell, 1900. Canad. Ent. 32: 91. ♀ 0.

teres Weld. Calif., Oreg. Gall on *Quercus garryana.*
Xanthoteras teres Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 52. ♀ 0.

teres var. **hildebrandae** (Kinsey). Calif. Gall on *Quercus dumosa.*
Cynips (Antron) teres var. ***hildebrandae*** Kinsey, 1930. Genus Cynips, p. 217. ♀ 0.

Sexual Generation

Trigonaspis of American authors.

fumosum (Weld), n. comb. Ariz., N. Mex. Gall on *Quercus gambelii.*
Trigonaspis fumosa Weld, 1921. U. S. Natl. Mus. Proc. 59: 204. ♀ ♂ 0.

obconicum (Weld), n. comb. Calif. Gall on *Quercus douglasii.*
Trigonaspis obconica Weld, 1921. U. S. Natl. Mus. Proc. 59: 202. ♀ ♂ 0.

ornatum (Kinsey), n. comb. Tex. Gall on *Quercus breviloba.*
Trigonaspis ornata Kinsey, 1922. Ind. Univ. Studies 53: 139. ♀ ♂ 0.

pulchellum (Beutenmueller), n. comb. Calif.
Dryophanta pulchella Beutenmueller, 1911. Ent. News 22: 357. ♀.

pumiliventris (Bassett), n. comb. Utah, Colo.
Dryophanta pumiliventris Bassett, 1890. Amer. Ent. Soc. Trans. 17: 69. ♂ ♀.
Belonocnema colorado Gillette, 1893. Ent. News 4: 210. ♀.
Trigonaspis radicis Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 113. ♀ ♂ 0.

radicola (Ashmead), n. comb. Mo., Ill., Ind., Ont., N. Y., N. J., Pa., D. C., Va. Gall on *Quercus alba.*
Dryophanta radicola Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 116. ♀ 0.

Genus ACRASPIS Mayr

Acraspis Mayr, 1881. Genera Gallenbew. Cynip., pp. 2, 29.
Type: ***Cynips pezomachoides*** Osten Sacken. Desig. by Rohwer and Fagan, 1917.

alaria Weld. Colo. Gall on *Quercus gambelii.*
Acraspis alaria Weld, 1922. U. S. Natl. Mus. Proc. 61 (18): 14. ♀ 0.

arida (Kinsey). Tex. Gall on *Quercus grisea.*
Cynips (Acraspis) arida Kinsey, 1930. Genus Cynips, p. 313. ♀ 0.

bandero (Kinsey). Colo. Gall on *Quercus gambelii.*
Cynips (Acraspis) bandero Kinsey, 1936. Higher Categories, p. 284. ♀ 0.

conica (Kinsey). Ariz. Gall on *Quercus grisea.*
Cynips (Acraspis) conica Kinsey, 1930. Genus Cynips, p. 338. ♀ 0.

echini Ashmead. Fla. Gall on *Quercus bicolor.*
Acraspis echini Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 140. ♀ 0.
Cynips (Acraspis) pezomachoides var. ***echinoides*** Kinsey, 1930. Genus Cynips, p. 412. N. name.

erinacei (Beutenmueller). Ont. to Ill., south to Va. Gall on *Quercus alba.*
Philonix erinacei Beutenmueller, 1909. Amer. Mus. Nat. Hist. Bul. 26: 247. Agamic ♀ 0.
Andricus fulvicollis form ***bicolens*** Kinsey, 1920. Amer. Mus. Nat. Hist. Bul. 42: 354. ♀ ♂ 0.
Taxonomy: Triggerson, 1914. Ent. Soc. Amer. Ann. 7: 6. ♀ ♂ 0 of bisexual gen.

gemula (Bassett). Conn., N. Y., N. J. Gall on *Quercus prinoides*.
Cynips gemula Bassett, 1881. Canad. Ent. 13: 104. ♀ ♂ 0.

gemula var. **cruenta** (Kinsey). Ill. Gall on *Quercus michauxii*.
Cynips (Acraspis) gemmula var. ***cruenta*** Kinsey, 1930. Genus Cynips, p. 360. Agamic ♀ 0. Emend.

gemula var. **fuscata** (Kinsey). Kans. Gall on *Quercus muehlenbergii*.
Cynips (Acraspis) gemmula var. ***fuscata*** Kinsey, 1930. Genus Cynips, p. 362. Agamic ♀ 0.

gemula var. **suspecta** (Kinsey). Ind. Gall on *Quercus michauxii*.
Cynips (Acraspis) gemmula var. ***suspecta*** Kinsey, 1930. Genus Cynips, p. 364. Agamic ♀ 0.

guadaloupensis (Fullaway). Calif. Gall on *Quercus chrysolepis*.
Callirhytis guadaloupensis Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 363. ♀ 0.

hibrida (Kinsey). Tenn. Gall on *Quercus alba*.
Cynips (Acraspis) (pezomachoides) hibrida Kinsey, 1936. Higher Categories, p. 273. ♀ 0.

hirta (Osten Sacken). Conn., N. Y., Va.
Cynips q. hirta Bassett, 1864. Ent. Soc. Phila. Proc. 3: 688. ♀ 0. Tri.
Cynips (Teras) hirta Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 340, 347, 353.

hirta var. **obtrectans** (Kinsey). Tex. Gall on *Quercus macrocarpa*.
Cynips (Acraspis) hirta var. ***obtrectans*** Kinsey, 1930. Genus Cynips, p. 420. Agamic ♀ 0.

hirta var. **opima** (Kinsey). Ill. Gall on *Quercus macrocarpa*.
Cynips (Acraspis) hirta var. ***opima*** Kinsey, 1930. Genus Cynips, p. 421. Agamic ♀ 0.

hirta var. **packorum** (Kinsey). Utah. Gall on *Quercus utahensis*.
Cynips (Acraspis) hirta var. ***packorum*** Kinsey, 1930. Genus Cynips, p. 418. Agamic ♀ 0.

hirta var. **scelesta** (Kinsey). Mich. Gall on *Quercus macrocarpa*.
Cynips (Acraspis) hirta var. ***scelesta*** Kinsey, 1930. Genus Cynips, p. 422. Agamic ♀ 0.

hirtior (Kinsey). Utah. Gall on *Quercus utahensis*.
Cynips (Acraspis) (hirta) hirtior Kinsey, 1936. Higher Categories, p. 286. Agamic ♀ 0.

inflata (Kinsey). Ind. Gall on *Quercus alba*.
Cynips (Acraspis) (pezomachoides) inflata Kinsey, 1936. Higher Categories, p. 274. Agamic ♀ 0.

insolens Weld. Calif. Gall on *Quercus chrysolepis*.
Acraspis insolens Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 59. ♀ 0.

longicornis (Ashmead), n. comb. sex. gen. Conn. Gall on *Quercus stellata*.
Dryophanta longicornis Ashmead, 1900. Amer. Ent. Soc. Trans. 26: 327. ♂ ♀.

macrocarpae Bassett. Conn. Gall on *Quercus macrocarpa*.
Acraspis macrocarpae Bassett, 1890. Amer. Ent. Soc. Trans. 17: 84. Agamic ♀ 0.
Acraspis undulata Gillette, 1893. Ent. News 4: 28. Agamic ♀ 0.
Cynips (Acraspis) hirta var. ***macrescens*** Kinsey, 1930. Genus Cynips, p. 423. N. name.

patelloides Weld. Calif. Gall on *Quercus chrysolepis*.
Acraspis patelloides Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 60. ♀ 0.

pezomachoides (Osten Sacken). Ont. to Minn.; south to Va., N. C. Gall on *Quercus alba*.
Cynips pezomachoides Osten Sacken, 1862. Ent. Soc. Phila. Proc. 1: 250. Agamic ♀ 0.

pezomachoides var. **advena** (Kinsey). Tenn. Gall on *Quercus alba*.

Cynips (*Acraspis*) *pezomachoides* var. *advena* Kinsey, 1930. Genus Cynips, p. 409. Agamic ♀ 0.

pezomachoides var. **cincturata** (Kinsey). Colo.
Cynips (*Acraspis*) *pezomachoides* var. *cincturata* Kinsey, 1930. Genus Cynips, p. 377. Agamic ♀ 0.

pezomachoides var. **derivatus** (Kinsey). Ala. Gall on *Quercus alba.*
Cynips (*Acraspis*) *pezomachoides* var. *derivatus* Kinsey, 1930. Genus Cynips, p. 391. Agamic ♀ 0.

pezomachoides var. **ozark** (Kinsey). Mo. Gall on *Quercus alba.*
Cynips (*Acraspis*) *pezomachoides* var. *ozark* Kinsey, 1930. Genus Cynips, p. 378. Agamic ♀ 0.

pezomachoides var. **wheeleri** (Kinsey). Mich. Gall on *Quercus alba.*
Cynips (*Acraspis*) *pezomachoides* var. *wheeleri* Kinsey, 1930. Genus Cynips, p. 380. Agamic ♀ 0.

prinoides (Beutenmueller). N. J., N. Y., Mass. Gall on *Quercus prinoides.*
Cynips (?) *prinoides* Beutenmueller, 1892. Amer. Mus. Nat. Hist. Bul. 4: 257. ♀ 0.

ulterior (Kinsey). Colo. Gall on *Quercus gambelii.*
Cynips (*Acraspis*) (*hirta*) *ulterior* Kinsey, 1936. Higher Categories, p. 294. Agamic ♀ 0.

villosa Gillette. Iowa, Kans., Mich., N. Y. Gall on *Quercus macrocarpa.*
Acraspis villosus Gillette, 1888. Mich. State Bd. Agr. Rpt. 27: 474. Agamic ♀ 0.

villosa var. **apache** (Kinsey). Ariz. Gall on *Quercus grisea, Q. arizonica.*
Cynips (*Acraspis*) *villosa* var. *apache* Kinsey, 1930. Genus Cynips, p. 352. Agamic ♀ 0.

villosa var. **calvescens** (Kinsey). Utah. Gall on *Quercus utahensis.*
Cynips (*Acraspis*) *villosa* var. *calvescens* Kinsey, 1930. Genus Cynips, p. 354. Agamic ♀ 0.

villosa var. **consocians** (Kinsey). Kans. Gall on *Quercus macrocarpa.*
Cynips (*Acraspis*) *villosa* var. *consocians* Kinsey, 1930. Genus Cynips, p. 357. Agamic ♀ 0.

villosa var. **expositor** (Kinsey). Tex. Gall on *Quercus grisea.*
Cynips (*Acraspis*) *villosa* var. *expositor* Kinsey, 1930. Genus Cynips, p. 351. Agamic ♀ 0.

Genus PHILONIX Fitch

Philonix Fitch, 1859 (1858). N. Y. State Agr. Soc. Trans. 18: 783.
Type: *Philonix fulvicollis* Fitch. Desig. by Ashmead, 1903.

fulvicollis Fitch. N. Y. Captured on snow in late November.
Philonix fulvicollis Fitch, 1859 (1858). N. Y. State Agr. Soc. Trans. 18: 783.

fulvicollis var. **canadensis** (Kinsey). Mich. Gall on *Quercus alba.*
Cynips (*Philonix*) *fulvicollis* var. *canadensis* Kinsey, 1930. Genus Cynips, p. 273. ♀ 0.

fulvicollis var. **major** (Kinsey). Ill. Gall on *Quercus alba.*
Cynips (*Philonix*) *fulvicollis* var. *major* Kinsey, 1930. Genus Cynips, p. 257. ♀ 0.

fulvicollis var. **rubricosa** (Kinsey). Tenn. Gall on *Quercus alba.*
Cynips (*Philonix*) *fulvicollis* var. *rubricosa* Kinsey, 1930. Genus Cynips, p. 254. ♀ 0.

fulvicollis var. **vorisi** (Kinsey). Kans. Gall on *Quercus macrocarpa.*
Cynips (*Philonix*) *fulvicollis* var. *vorisi* Kinsey, 1930. Genus Cynips, p. 255. ♀ 0.

gigas Weld. Ark., Mo., Tex. Gall on *Quercus lyrata.*
Philonix gigas Weld, 1922. U. S. Natl. Mus. Proc. 61 (18): 12. ♀ 0.

insulensis (Kinsey). S. Dak. Gall on *Quercus macrocarpa.*
Cynips (*Philonix*) (*fulvicollis*) *insulensis* Kinsey, 1936. Higher Categories, p. 210. ♀ 0.

lanaeglobuli (Ashmead). Fla. Gall on *"Quercus bicolor"* but probably *Q. michauxii.*
Acraspis lanaeglobuli Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 139. ♀ 0.

latigenae (Kinsey). Utah. Gall on *Quercus utahensis.*
Cynips (*Philonix*) (*fulvicollis*) *latigenae* Kinsey, 1936. Higher Categories, p. 212. ♀ 0.

nigra (Gillette). Mich., Iowa, Conn. Gall on *Quercus alba.*
Acraspis niger Gillette, 1889. Iowa Agr. Expt. Sta. Bul. 7: 282. ♀ 0.
Acraspis Gillettei Bassett, 1900. Amer. Ent. Soc. Trans. 26: 323. ♀ 0.

nigricollis Fitch. N. Y.
Philonix nigricollis Fitch, 1859 (1858). N. Y. State Agr. Soc. Trans. 18: 783. ♀.

pallipes (Bassett). Conn., N. Y., Md., D. C., Va., Ill. Gall on *Quercus alba.*
Dryophanta pallipes Bassett, 1900. Amer. Ent. Soc. Trans. 26: 327. ♀ 0. Syn. of *gemula?*
Taxonomy: Kinsey, 1930. Genus Cynips, p. 269.

Genus LIODORA Foerster

Liodora Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 331, 334.
Type: *Liodora sulcata* Foerster. Monob.

apiaria Weld. Va., D. C. Gall on *Quercus alba.*
Liodora apiarium Weld, 1944. U. S. Natl. Mus. Proc. 95: 6. ♀ 0.

clarkei (Bassett), n. comb. Mass., Mo. Gall on *Quercus alba, Q. stellata.*
Dryophanta clarkei Bassett, 1890. Amer. Ent. Soc. Trans. 17: 69. ♀ ♂ 0.
Dryophanta vesiculoides Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 114. ♀ ♂ 0. N. syn.

Genus DROS Kinsey

Dros Kinsey, 1937. Rev. Ent. 7: 49.
Type: *Dros petasum* Kinsey. Orig. desig.

amphora (Weld), n. comb. N. Mex., Ariz. Gall on *Quercus arizonica, Q. oblongifolia.*
Diplolepis amphora Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 17. ♀ 0.

atrimentum (Kinsey), n. comb. Calif. Gall on *Quercus douglasii.*
Andricus atrimentus Kinsey, 1922. Amer. Mus. Nat. Hist. Bul. 46: 279. ♀ ♂ 0.

pedicellatum (Kinsey), n. comb. Calif. Gall on *Quercus douglasii.*
Andricus pedicellatus Kinsey, 1922. Amer. Mus. Nat. Hist. Bul. 46: 284. ♀ ♂ 0.

sessile (Weld), n. comb. Ariz. Gall on *Quercus arizonica, Q. oblongifolia.*
Diplolepis sessilis Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 31. ♀ 0.

viscidum (Weld), n. comb. Ariz. Gall on *Quercus oblongifolia.*
Liodora viscida Weld, 1944. U. S. Natl. Mus. Proc. 95: 5. ♀ 0.

Genus ADLERIA Rohwer and Fagan

Adleria Rohwer and Fagan, 1917. U. S. Natl. Mus. Proc. 53: 359.
Type: *Cynips kollari* Hartig. Monob. and orig. desig.
Cynips of Hartig and authors, not Linnaeus, not Kinsey.

arizonica (Cockerell), n. comb. Ariz. Gall on *Quercus arizonica.*
Holcaspis arizonica Cockerell, 1902. Canad. Ent. 34: 183. ♀ 0.

dimorpha (Beutenmueller), n. comb. Ill., Mich., Iowa, N. Y., N. J., Md., Va., D. C. Gall on *Quercus alba, Q. macrocarpa.*
Cynips dimorphus Beutenmueller, 1913. Amer. Ent. Soc. Trans. 39: 245. ♀ 0.

flavicollis (Ashmead), n. comb. Ill.
Cynips flavicollis Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 123. ♀.

nigricens (Gillette), n. comb. Mich., Ill., Mo., N. Y., N. J., Ohio, Va. Gall on *Quercus bicolor.*
Cynips nigricens Gillette, 1888. Mich. State Bd. Agr. Rpt. 27: 473. ♀ 0.
Andricus Ashmeadii Bassett, 1890. Amer. Ent. Soc. Trans. 26: 320. ♀. N. syn.

strobilana (Osten Sacken), n. comb. Ont., Ill., Iowa; Mass. to Va. Gall on *Quercus bicolor, Q. macrocarpa.*
Cynips q. strobilana Osten Sacken, 1862. Ent. Soc. Phila. Proc. 1: 254. 0 only. Nom. nud.
Cynips quercus strobilana Osten Sacken, *In* Bassett, 1864. Ent. Soc. Phila. Proc. 3: 690. ♀. Tri.
Cynips strobilana Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 345, 349, 350.

vacciniformis (Beutenmueller), n. comb. Tex. Gall on *Quercus stellata.*
Cynips vacciniformis Beutenmueller, 1913. Amer. Ent. Soc. Trans. 39: 247. ♀ 0.

weldi (Beutenmueller), n. comb. Mass. to Ill., Mo., Ark.; Toronto to Va. Gall on *Quercus alba.*
Cynips weldi Beutenmueller, 1918. Brooklyn Ent. Soc. Bul. 13: 118. ♀ 0.

Genus AMPHIBOLIPS Reinhard

Amphibolips Reinhard, 1865. Berlin Ent. Ztschr. 9: 10.
Type: *Cynips spongifica* Osten Sacken. Orig. desig.
Trissandricus Kieffer, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 4: 115.
Type: *Trissandricus maculipennis* Kieffer. Monob.
Revision: Beutenmueller, 1909. Amer. Mus. Nat. Hist. Bul. 26: 47–66.

acuminata Ashmead. Atlantic and Gulf coast plains to Mo. Gall on *Quercus cinerea, Q. falcata.*
Amphibolips acuminata Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 126. ♀ 0.

arcuata (Kieffer). Ga.
Callirhytis arcuata Kieffer, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 4: 341. ♀.

cinerea Ashmead. Fla. Gall on *Quercus cinerea.*
Cynips q. cinerea Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. xix. ♀ 0. Tri.
Amphibolips cinerea Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 294.

citriformis Ashmead. Fla. Gall on *Quercus phellos.*
Cynips q. citriformis Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. xxviii. ♀ 0. Tri.
Amphibolips citriformis Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 294.

coelebs (Osten Sacken). D. C., Va., N. Y., Mass. Gall on *Quercus coccinea.*
Cynips quercus coelebs Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 60. ♂ 0. Tri.
Cynips coelebs Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 340, 345, 348, 355.

confluenta (Harris). Toronto to Ill., Iowa, Kans.; Mass. to Va. Gall on various red oaks.
Cynips confluentus Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 397. ♀ 0.
Cynips aciculata Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 56. ♀ 0.

cookii Gillette. Mich., Ill., Wis., Mo., Va., Toronto. Gall on *Quercus rubra.*
Amphibolips cookii Gillette, 1888. Mich. State Bd. Agr. Rpt. 27: 475. ♀ 0.

fuliginosa Ashmead. Fla. Gall on *Quercus laurifolia.*
Cynips q. fuliginosa Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. vii. ♀ 0. Tri.
Amphibolips fuliginosa Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 294.

gainesi Bassett. Tex., Ark. Gall on *Quercus marilandica.*
Amphibolips Gainesi Bassett, 1900. Amer. Ent. Soc. Trans. 26: 322. ♀ 0.

globulus Beutenmueller. N. J. Gall on *Quercus marilandica.*
Amphibolips globulus Beutenmueller, 1909. Amer. Mus. Nat. Hist. Bul. 26: 60. ♀ 0.

gumia Kinsey. Ariz. Gall on *Quercus emoryi, Q. hypoleuca.*
Amphibolips (niger) gumia Kinsey, 1937. Rev. Ent. 7: 437. ♀ 0.

ilicifoliae (Osten Sacken). Conn., Mass., N. Y., N. J., Pa., Va. Gall on *Quercus ilicifolia.*
Cynips q. ilicifoliae Bassett, 1864. Ent. Soc. Phila. Proc. 3: 681. ♀ ♂ 0. Tri.
Cynips ilicifoliae Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 340, 355.

inanis (Osten Sacken). Ont. to Ill., Wis., Mo.; south to Va. Gall on *Quercus rubra.*
Cynips q. inanis Osten Sacken, 1862. Ent. Soc. Phila. Proc. 1: 242, 247. ♀ 0. Tri.
Cynips inanis Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 344, 347, 354.

melanocera Ashmead. Fla. Gall on *Quercus nigra.*
Amphibolips melanocera Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 299, 303. ♂ 0.

nubilipennis (Harris). Mass., N. Y., Mich., Ill., Iowa, N. J., Va. Gall on various red oaks.
Cynips nubilipennis Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 399. ♀ 0.
Cynips q. sculptus Bassett, 1863. Ent. Soc. Phila. Proc. 2: 324. ♀ ♂ 0.

prunus Cresson. Mass. to Iowa, Mo.; south to Va. Gall on various red oaks.
Cynips q. juglans Osten Sacken, 1862. Ent. Soc. Phila. Proc. 1: 255. 0 only. Nom. nud.
Cynips q. prunus Walsh and Riley, 1869. Amer. Ent. 1: 104. ♀ 0. Tri.
Amphibolips prunus Mayr, 1881. Genera Gallenbew. Cynip., p. 27. *Nom. nud.*
Amphibolips prunus Cresson, 1887. Synopsis Amer. Hym., p. 175.

racemaria Ashmead. Fla. Gall on *Quercus laurifolia.*
Cynips q. racemaria Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. xxvi. ♀ 0. Tri.
Amphibolips racemaria Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 294.

spinosa Ashmead. Fla. Gall on *Quercus laurifolia.*
Amphibolips spinosa Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 141. ♀ 0.

spongifica (Osten Sacken). Ont. to Ill.; south to Va. Gall on *Quercus coccinea, Q. velutina, Q. marilandica.*
Cynips q. spongifica Osten Sacken, 1862. Ent. Soc. Phila. Proc. 1: 244, 247. ♀ 0. Tri.
Cynips spongifica Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 340, 344, 347, 354.
Cynips q. coccineae Osten Sacken, 1862. Ent. Soc. Phila. Proc. 1: 243. ♀ 0.
Amphibolips Carolinensis Bassett, 1890. Amer. Ent. Soc. Trans. 17: 85. ♀ 0. N. syn.
Amphibolips longicornis Bassett, 1900. Amer. Ent. Soc. Trans. 26: 321. ♂ 0. N. syn.
Trissandricus maculipennis Kieffer, 1910. Lab. Zool. Gen. e. Agr. Portici Bol. 4: 115. ♀.

tinctoriae Ashmead. N. Y., Ill., Mo., Va., D. C. Gall on *Quercus coccinea, Q. velutina.*
Amphibolips tinctoriae Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 125. ♀ 0.

trizonata Ashmead. Ariz., N. Mex. Gall on *Quercus emoryi, Q. hypoleuca.*
Amphibolips trizonata Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 125. ♀ ♂ 0.

Genus ANDRICUS Hartig

Andricus Hartig, 1840 (1839). Germar Ztschr. f. Ent. 2: 185, 190.
Type: (*Andricus Noduli* Hartig)=*Andricus trilineatus* Hartig. Desig. by Foerster, 1869.
Aphilothrix Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 331, 336.
Type: *Cynips corticis* Linnaeus. Monob.

Manderstjernia Radoszkowski, 1886. Soc. Nat. Moscou Bul. 39: 304.
Type: (*Manderstjernia paradoxa* Radoszkowski)=*Cynips albopunctata* Schlechtendal. Monob.
Euschmitzia Dettmer, 1925. Naturhist. Maand. Maastricht 14: 122.
Type: (*Euschmitzia rara* Dettmer)=*Andricus nudus* Adler, sex. gen. Monob.
Oncaspis Dettmer, 1925. Naturhist. Maand. Maastricht 14: 123.
Type: (*Oncaspis filigranata* Dettmer)=*Andricus solitarius* Fonscolombe, sex. gen. Monob.
Eusymphagus Dettmer, 1930. Brotéria, Rev. Luso-Brazil. Ser. Zool. 26: 54–7. N. syn.
Type: *Eusymphagus bellus* Dettmer. Monob.
Druon Kinsey, 1937. Rev. Ent. 7: 56. N. syn.
Type: *Druon protagion* Kinsey. Orig. desig.
Femuros Kinsey, 1937. Rev. Ent. 7: 65. N. syn.
Type: *Femuros repandae* Kinsey. Orig. desig.
Feron Kinsey, 1937. Rev. Ent. 7: 69. N. syn.
Type: *Feron verutum* Kinsey. Orig. desig.
Conobius Kinsey, 1938. Ind. Acad. Sci. Proc. 47: 262. N. syn.
Type: *Conobius strues* Kinsey. Orig. desig.

aciculatus Beutenmueller. Tex., Mo., Ark. Gall on *Quercus stellata*.
Andricus aciculatus Beutenmueller, 1909. Ent. News 20: 247. ♀ 0.

albobalani Weld. Calif. Gall on *Quercus dumosa*.
Andricus albobalani Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 68. ♀ 0.

biconicus Weld. Tex., Ark., Mo., Okla., Va., D. C. Gall on *Quercus stellata*.
Andricus biconicus Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 68. ♀ 0.

bracteatus Weld. Ariz. Gall on *Quercus arizonica*, *Q. oblongifolia*, *Q. toumeyi*, *Q. reticulata*.
Andricus bracteatus Weld, 1944. U. S. Natl. Mus. Proc. 95: 7. ♀ 0.

brunneus Fullaway. Calif. Gall on *Quercus douglasii*.
Andricus brunneus Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 353. ♀ 0.

caepula (Weld), n. comb. N. Mex., Ariz. Gall on *Quercus subturbinella*, *Q. arizonica*, *Q. oblongifolia*.
Diplolepis caepula Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 19. ♀ 0.

californicus Ashmead. Calif., Oreg., Wash. Gall on *Quercus lobata*, *Q. douglasii*, *Q. dumosa*, *Q. engelmanni*, *Q. garryana*.
Cynips q. californicus Bassett, 1881. Canad. Ent. 13: 51. ♀ 0. Tri.
Andricus (*Callirhytis*) *californicus* Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 294.
Andricus spongiola Gillette, 1894. Canad. Ent. 26: 235. ♀ 0.
Andricus californicus var. *fructiformis* Kinsey, 1922. Ind. Univ. Studies 53: 12. ♀ 0. N. syn.
Andricus californicus var. *intermedius* Kinsey, 1922. Ind. Univ. Studies 53: 14. ♀ 0. N. syn.

capillatus (Weld), n. comb. Ill., Mo., Ark., Md., D. C., Va. Gall on *Quercus alba*.
Diplolepis capillata Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 20. ♀ 0.

cellularius Gillette. Colo. Gall on *Quercus undulata*.
Andricus cellularius Gillette, 1892. Ent. News 3: 247. ♀ 0.

chinquapin (Fitch). N. Y., Conn., D. C., Va., Md., Ill., Mo. Gall on *Quercus prinoides*, *Q. alba*, *Q. bicolor*.
Figites chinquapin Fitch, 1859 (1858). N. Y. State Agr. Soc. Trans. 18: 820. ♀ 0.
Cynips quercus fusiformis Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 61. ♀ 0.
Cynips capsula Bassett, 1881. Canad. Ent. 13: 101. ♀ ♂ 0.

chrysobalani Weld. Calif. Gall on *Quercus chrysolepis*.
Andricus chrysobalani Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 71. ♀ 0.

chrysolepidicola (Ashmead), n. comb. Calif. Gall on *Quercus dumosa*, *Q. douglasii* (not *Q. chrysolepis*).
Cynips chrysolepidicola Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 124. ♀ 0.

Cynips kelloggii Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 345. ♀ 0. N. syn.
Cynips rufescens McCraken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 21. ♀ 0. N. syn.
Plagiotrichus (!) ***chrysolepidicola*** var. ***diminuens*** Kinsey, 1922. Ind. Univ. Studies 53: 114. N. syn.
Plagiotrichus (!) ***chrysolepidicola*** var. ***alutaceus*** Kinsey, 1922. Ind. Univ. Studies 53: 116. N. syn.
Plagiotrichus (!) ***chrysolepidicola*** var. ***atricinctus*** Kinsey, 1922. Ind. Univ. Studies 53: 117. N. syn.
Plagiotrichus (!) ***chrysolepidicola*** var. ***compositus*** Kinsey, 1922. Ind. Univ. Studies 53: 118. N. syn.

chrysolepidicola var. **garryanae** (Kinsey). Oreg. Gall on *Quercus garryana.*
Plagiotrichus (!) ***chrysolepidicola*** var. ***garryanae*** Kinsey, 1922. Ind. Univ. Studies 53: 121. ♀ 0.

chrysolepidicola var. **pugnoides** (Kinsey). Calif. Gall on *Quercus lobata.*
Plagiotrichus (!) ***chrysolepidicola*** var. ***pugnoides*** Kinsey, 1922. Ind. Univ. Studies 53: 120. ♀ 0.

chrysolepidicola var. **pugnus** (Kinsey). Calif. Gall on *Quercus lobata.*
Plagiotrichus (!) ***chrysolepidicola*** var. ***pugnus*** Kinsey, 1922. Ind. Univ. Studies 53: 120. ♀ 0.

cinnamomeus Ashmead. Fla. Gall on *Quercus chapmani.*
Andricus cinnamomeus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 137. ♀ 0.
Andricus calycicola Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 141. ♀ 0.

confertus McCracken and Egbert. Calif. Gall on *Quercus lobata.*
Andricus confertus McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 32. ♀ 0.

coortus Weld. Calif. Gall on *Quercus douglasii, Q. dumosa.*
Andricus coortus Weld, 1944. U. S. Natl. Mus. Proc. 95: 8. ♀ 0.

coronus Beutenmueller. N. Y., D. C., Va., Ga., Ala. Gall on *Quercus palustris, Q. phellos.*
Andricus coronus Beutenmueller, 1907. Amer. Mus. Nat. Hist. Bul. 23: 464. ♀ 0.

costatus Weld. Ariz., N. Mex., Colo. Gall on *Quercus fendleri, Q. subturbinella, Q. gambelii.*
Andricus costatus Weld, 1944. U. S. Natl. Mus. Proc. 95: 9. ♀ 0.

crassicornis (Ashmead), n. comb. Fla.
Callirhytis crassicornis Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 130. ♀ 0.

crystallinus Bassett. Calif. Gall on *Quercus douglasii, Q. dumosa, Q. garryana.*
Andricus crystallinus Bassett, 1900. Amer. Ent. Soc. Trans. 26: 319. ♀ 0.

deciduatus Weld. Ill. Gall on *Quercus bicolor.*
Andricus deciduatus Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 72. ♀ 0.

discalis (Weld), n. comb. N. Mex., Ariz. Gall on *Quercus subturbinella.*
Diplolepis discalis Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 24. ♀ 0.

discularis (Weld). Calif. Gall on *Quercus garryana.*
Diplolepis discularis Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 25. ♀ 0.

ellipsoidalis (Weld), n. comb. Va. Gall on *Quercus palustris, Q. falcata.*
Amphibolips ellipsoidalis Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 105. ♀ 0.

femoratus Ashmead. Fla. Gall on *Quercus laurifolia, Q. phellos.*
Andricus femoratus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 141. ♀ 0.

fimbrialis Weld. Calif. Gall on *Quercus dumosa, Q. douglasii, Q. lobata.*
Andricus fimbrialis Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 74. ♀ ♂ 0.

flavohirtus Beutenmueller. N. J., Ill. Gall on *Quercus bicolor.*
Andricus flavohirtus Beutenmueller, 1913. Insecutor Inscitiae Menstruus 1: 124. ♀ 0.

flocci (Osten Sacken). Ill., Mo., Ark., Mich., Mass.; south to Va., N. C. Gall on *Quercus alba.*
Cynips quercus flocci Walsh, 1864. Ent. Soc. Phila. Proc. 2: 482. ♀ 0. Tri.
Cynips (Andricus?) flocci Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 348, 352.
Taxonomy: Fitch 1859 (1858). N. Y. State Agr. Soc. Trans. 18: 814. Gall described.

foliaformis Gillette. Mich. Gall on *Quercus alba.*
Andricus foliaformis Gillette, 1888. Mich. State Bd. Agr. Rpt. 27: 471. ♀ 0.

foliatus Ashmead. Fla., Ga., Ala., Miss., Tex. Gall on *Quercus virginiana.*
Cynips q. foliata Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. xii. ♀ 0. Tri.
Andricus (Andricus) foliatus Ashmead. Amer. Ent. Soc. Trans. 12: 295.

foliosus Weld. Ill., N. Y. Gall on *Quercus bicolor, Q. macrocarpa.*
Andricus foliosus Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 76. ♀ ♂ 0.

formosalis Weld. Ariz. Gall on *Quercus emoryi.*
Andricus formosalis Weld, 1944. U. S. Natl. Mus. Proc. 95: 10. ♀ 0.

formosus (Osten Sacken). Fla. to Conn.; west to Ill., Mo. Gall on *Quercus rubra, Q. coccinea, Q. cinerea, Q. phellos, Q. marilandica.*
Cynips q. formosa Bassett, 1864. Ent. Soc. Phila. Proc. 3: 679. ♀ 0. Tri.
Cynips formosa Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 341, 345, 349.
Cynips q. capsuala Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. ix. ♀ 0.

fullawayi Beutenmueller. Calif. Gall on *Quercus lobata.*
Andricus fullawayi Beutenmueller, 1913. Amer. Ent. Soc. Trans. 39: 244. ♀ 0.

furnessulus Weld. Ariz. Gall on *Quercus oblongifolia.*
Andricus furnessulus Weld, 1944. U. S. Natl. Mus. Proc. 95: 12. ♀ 0.

howertoni Bassett. N. Mex., Ariz. Gall on *Quercus subturbinella.*
Andricus Howertoni Bassett, 1890. Amer. Ent. Soc. Trans. 17: 82. ♀ 0.

ignotus (Bassett). Conn., Mass., Ill., Minn. Gall on *Quercus bicolor, Q. macrocarpa.*
Cynips ignota Bassett, 1881. Canad. Ent. 13: 106. ♀ 0.

incertus Bassett. Conn., Ill. Ovipositing in *Quercus bicolor.*
Andricus incertus Bassett, 1900. Amer. Ent. Soc. Trans. 26: 317. ♀.
Andricus fimbriatus Weld, 1922. U. S. Natl. Mus. Proc. 61 (19): 29. ♀ 0.

incognitus Weld, n. name. Conn. Gall on *Quercus stellata.*
Andricus ignotus Bassett, 1900. Amer. Ent. Soc. Trans. 26: 317. Preocc. by Bassett, 1881.

indistinctus Bassett. Ohio. Gall on *Quercus alba.*
Andricus indistinctus Bassett, 1890. Amer. Ent. Soc. Trans. 17: 81. ♀ 0.

kingi Bassett. Calif. Gall on *Quercus lobata, Q. douglasii.*
Andricus Kingi Bassett, 1900. Amer. Ent. Soc. Trans. 26: 316. ♀ 0.
Andricus pistillaris Trotter, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 5: 117. ♀ 0. N. syn.

laniger Ashmead. Fla., Ga., Ala., Miss., La., Tex. Gall on *Quercus virginiana.*
Cynips q. lanigera Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. xiii. ♀ 0. Tri.
Andricus (Andricus) lanigera Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 295.

lasius (Ashmead). Calif. Gall on *Quercus chrysolepis.*
Callirhytis lasius Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 132.

lasius var. **areolaris** Kinsey. Calif. Gall on *Quercus chrysolepis.*
Andricus lasius var. ***areolaris*** Kinsey, 1922. Ind. Univ. Studies 53: 19. ♀ 0.

lasius var. **sublasius** Kinsey. Calif. Gall on *Quercus chrysolepis.*
Andricus lasius var. ***sublasius*** Kinsey, 1922. Ind. Univ. Studies 53: 19. ♀ 0.

mamillaformis (Weld), n. comb. Ill., N. C., Md., Va. Gall on *Quercus alba.*
Callirhytis mamillaformis Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 96. ♀ 0.

maxwelli Bassett. Tex.
Andricus Maxwelli Bassett, 1890. Amer. Ent. Soc. Trans. 17: 83. ♀ ♂ 0.

murtfeldtae Ashmead. Mo., Tex., S. C., D. C., W. Va., N. J. Gall on *Quercus stellata.*
Andricus murtfeldtae Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 117. ♂ 0.
Taxonomy: Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 78, ♀.

occultatus (Weld), n. comb. Calif. Gall on *Quercus lobata.*
Diplolepis occultatus Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 28. ♀ 0.

operta (Weld). Calif. Gall on *Quercus lobata.*
Callirhytis nigra Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 362. ♀ (not 0). Preocc.
Diplolepis operta Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 29. ♀ 0.
Andricus nigridius Weld, 1944. U. S. Natl. Mus. Proc. 95: 11. N. name.

ostensackenii (Osten Sacken). Conn., to Va., Ill. Gall on *Quercus coccinea, Q. palustris.*
Cynips q. Osten Sackenii Bassett, 1863. Ent. Soc. Phila. Proc. 2: 327. ♀ ♂ 0. Tri.
Cynips Osten Sackenii Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 345, 348, 355.

parmula Bassett. Calif. Gall on *Quercus lobata, Q. douglasii, Q. engelmanni, Q. dumosa, Q. garryana.*
Andricus parmula Bassett, 1900. Amer. Ent. Soc. Trans. 26: 312. ♀ 0.
Dryophanta discus Bassett, 1900. Amer. Ent. Soc. Trans. 26: 326. ♀ 0.

pattersonae Fullaway. Calif., Wash. Gall on *Quercus douglasii, Q. garryana.*
Andricus pattersonae Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 352. ♀ 0.

pattoni (Bassett). Conn., to Fla.; west to Tex., Okla. Gall on *Quercus stellata.*
Cynips pattoni Bassett, 1881. Canad. Ent. 13: 98. ♀ 0.

petiolicola (Osten Sacken). Mass. to Mo.; south to Va., Tenn. Gall on various white oaks.
Cynips q. petiolicola Bassett, 1863. Ent. Soc. Phila. Proc. 2: 325. ♀ ♂ 0. Tri.
Cynips (Andricus) petiolicola Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 339, 346, 349.
Andricus quinqueseptum Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 299. ♂ 0.
Andricus cicatricula Bassett, 1890. Amer. Ent. Soc. Trans. 17: 80. ♀ ♂ 0.
Andricus concolorans Kinsey, 1920. Amer. Mus. Nat. Hist. Bul. 42: 302. ♀ ♂ 0.

pilula Bassett. Utah.
Andricus (Callirhytis) pilula Bassett, 1890. Amer. Ent. Soc. Trans. 17: 77. ♀ 0.

pisiformis Beutenmueller. N. J., Md., Va., Fla., Ill. Gall on *Quercus bicolor, Q. alba.*
Andricus pisiformis Beutenmueller, 1911. Ent. News 22: 70. ♀ 0.

pulchellus Bassett. Conn. Ovipositing on *Quercus prinoides.*
Andricus pulchellus Bassett, 1900. Amer. Ent. Soc. Trans. 26: 314. ♀.

reniformis McCracken and Egbert. Calif. Gall on *Quercus vaccinifolia.*
Andricus reniformis McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 31. ♀ 0.

reticulatus Bassett. N. Mex., Ariz. Gall on *Quercus arizonica, Q. oblongifolia, Q. toumeyi.*
Andricus (Callirhytis) reticulata Bassett, 1890. Amer. Ent. Soc. Trans. 17: 74. ♀ 0.

rhizoxenus (Ashmead). Ariz.
Callirhytis rhizoxenus Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 132. ♀ 0.

robustus Weld. Tex., Ark., Mo., Fla., D. C., Va. Gall on *Quercus stellata.*
Andricus robustus Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 81. ♀ 0.

rugatus Weld. Ark., Mo. Gall on *Quercus lyrata.*
Andricus rugatus Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 82. ♀ 0.

ruginosus Bassett. N. Mex., Ariz. Gall on *Quercus fendleri, Q. gambelii.*
Andricus (Callirhytis) ruginosus Bassett, 1890. Amer. Ent. Soc. Trans. 17: 75. ♀ 0.

scutella Weld. Ariz. Gall on *Quercus subturbinella.*
Andricus scutella Weld, 1930. Ent. Soc. Wash. Proc. 32: 29. ♀ 0.

singularis (Osten Sacken). Maine to Ill.; Quebec south to Va., N. C. Gall on *Quercus rubra.*
Cynips q. singularis Bassett, 1863. Ent. Soc. Phila. Proc. 2: 326. ♀ ♂ 0. Tri.
Cynips singularis Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 345, 348, 355.

spectabilis Kinsey. Calif. Gall on *Quercus chrysolepis.*
Andricus spectabilis Kinsey, 1922. Amer. Mus. Nat. Hist. Bul. 46: 289. ♀ 0.

spectabilis var. **incisus** Kinsey. Calif.
Andricus spectabilis var. ***incisus*** Kinsey, 1922. Ind. Univ. Studies 53: 45. ♀.

spectabilis var. **ukiahensis** Kinsey. Calif.
Andricus spectabilis var. ***ukiahensis*** Kinsey, 1922. Ind. Univ. Studies 53: 46. ♀.

spicatus (Bassett), n. comb. Ariz. Gall on *Quercus arizonica, Q. oblongifolia, Q. toumeyi.*
Loxaulus spicatus Bassett, 1900. Amer. Ent. Soc. Trans. 26: 329. ♀ 0.

splendens Weld. Ariz. Gall on *Quercus grisea, Q. subturbinella.*
Andricus splendens Weld, 1919. Canad. Ent. 51: 254. ♀ 0.

stellaris Weld. Calif. Gall on *Quercus garryana.*
Andricus stellaris Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 84. ♀ 0.

stramineus Weld. Ariz. Gall on *Quercus oblongifolia.*
Andricus stramineus Weld, 1944. U. S. Natl. Mus. Proc. 95: 13. ♀ 0.

stropus Ashmead. Fla., Va., Mo., Ark., Tex. Gall on *Quercus stellata.*
Andricus stropus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 136. ♀ 0.

sulfureus (Weld). Ariz. Gall on *Quercus arizonica, Q. oblongifolia.*
Diplolepis sulfureus Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 33. ♀ 0.

tecturnarum Kinsey. N. Mex., Ariz. Gall on *Quercus arizonica, Q. oblongifolia, Q. gambelii, Q. subturbinella.*
Andricus tecturnarum Kinsey, 1920. Amer. Mus. Nat. Hist. Bul. 42: 312. ♀ 0.

tenuicornis (Bassett), n. comb. Ariz. Gall on *Quercus arizonica.*
Cynips tenuicornis Bassett, 1881. Canad. Ent. 13: 92. ♀ 0.

toumeyi Weld. Ariz., N. Mex. Gall on *Quercus toumeyi, Q. subturbinella.*
Andricus toumeyi Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 85. ♀ 0.

tubalis Weld. Ariz. Gall on *Quercus arizonica, Q. oblongifolia.*
Andricus tubalis Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 86. ♀ 0.

tubularius Weld. N. Mex., Ariz. Gall on *Quercus subturbinella.*
Andricus tubularius Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 87. ♀ 0.

utriculus Ashmead. Conn. to Fla., west to Ill. Gall on *Quercus alba, Q. stellata, Q. chapmani.*
Cynips q. utricula Bassett, 1881. Canad. Ent. 13: 78. ♀ ♂ 0. Tri.
Andricus (Andricus) utriculus Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 295.
Andricus pruinosus Bassett, 1900. Amer. Ent. Soc. Trans. 26: 311. ♀ 0.

verensis Weld, n. name. Calif. Gall on *Quercus garryana.*
Andricus vernus Weld, 1944. U. S. Natl. Mus. Proc. 95: 13. ♀ 0. Preocc. by Bassett, 1900.

vernus (Bassett). Conn. Ovipositing in *Quercus ilicifolia.*
Amphibolips verna Bassett, 1900. Amer. Ent. Soc. Trans. 26: 321. ♀.

wheeleri Beutenmueller. N. Mex., Ariz. Gall. on *Quercus arizonica, Q. oblongifolia, Q. toumeyi, Q. subturbinella.*
Andricus wheeleri Beutenmueller, 1907. Amer. Mus. Nat. Hist. Bul. 23: 464. ♀ 0.

wiltzae Fullaway. Calif. Gall on *Quercus lobata, Q. dumosa.*
Andricus wiltzae Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 353. ♀ 0.

Genus BESBICUS Kinsey

Besbicus Kinsey, 1930. Genus Cynips, p. 222.
Type: *Cynips* (*Besbicus*) *multipunctata* var. *conspicua* Kinsey. Orig. desig.

conspicuus (Kinsey). Calif. Gall on *Quercus lobata.*
Cynips (*Besbicus*) *multipunctata* var. *conspicua* Kinsey, 1930. Genus Cynips, p. 229. ♀ 0.
Cynips (*Besbicus*) (*multipunctata*) *conspicua* Kinsey, 1936. Higher Categories, p. 324.

heldae (Fullaway). Calif. Gall on *Quercus lobata.*
Cynips heldae Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 345. ♀ 0.

indictus (Kinsey). Calif. Gall on *Quercus douglasii.*
Cynips (*Besbicus*) *multipunctata* var. *indicta* Kinsey, 1930. Genus Cynips, p. 228. ♀ 0.
Cynips (*Besbicus*) (*multipunctata*) *indicta* Kinsey, 1936. Higher Categories, p. 324.

leachii (Kinsey). Calif. Gall on *Quercus garryana.*
Cynips (*Besbicus*) *mirabilis* var. *leachii* Kinsey, 1930. Genus Cynips, p. 238. ♀ 0.
Cynips (*Besbicus*) (*mirabilis*) *leachii* Kinsey, 1936. Higher Categories, p. 325.

maculosus (Weld). Calif. Gall on *Quercus dumosa.*
Cynips maculosa Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 63. ♀ 0.

mirabilis (Kinsey). Oreg., Wash., B. C. Gall on *Quercus garryana.*
Cynips mirabilis Kinsey, 1922. Ind. Univ. Studies 53: 50. ♀ 0.

multipunctatus (Beutenmueller). Calif. Gall on *Quercus douglasii.*
Dryophanta multipunctata Beutenmueller, 1911. Ent. News 22: 67. ♀ 0.

tritior (Kinsey). Calif. Gall on *Quercus dumosa.*
Cynips (*Besbicus*) *maculosa* var. *tritior* Kinsey, 1930. Genus Cynips, p. 235. ♀ 0.
Cynips (*Besbicus*) (*maculosa*) *tritior* Kinsey, 1936. Higher Categories, p. 325.

Genus ATRUSCA Kinsey

Atrusca Kinsey, 1930. Genus Cynips, p. 276.
Type: *Cynips* (*Atrusca*) *dugèsi* var. *simulatrix* Kinsey. Orig. desig.

aggregata (Weld). Ariz. Gall on *Quercus arizonica, Q. oblongifolia, Q. toumeyi.*
Diplolepis aggregata Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 15. ♀ 0.

bella (Bassett). Ariz., N. Mex. Gall on *Quercus arizonica, Q. oblongifolia, Q. subturbinella, Q. toumeyi.*
Cynips bella Bassett, 1881. Canad. Ent. 13: 93. ♀ 0.
Holcaspis maculipennis Gillette, 1894. Canad. Ent. 26: 236. ♀ 0.

brevipennata (Gillette). Colo. Gall on *Quercus gambelii, Q. fendleri, Q. subturbinella.*
Holcaspis brevipennata Gillette, 1893. Ent. News 4: 31. ♀ 0.
Andricus pellucidus Kinsey, 1920. Amer. Mus. Nat. Hist. Bul. 42: 309. ♀ 0.

capronae (Weld). Ariz. Gall on *Quercus subturbinella.*
Diplolepis capronae Weld, 1930. Ent. Soc. Wash. Proc. 32: 29. ♀ 0.

catena (Kinsey). Tex. Gall on *Quercus grisea.*
Cynips (*Atrusca*) (*dugèsi*) *catena* Kinsey, 1936. Higher Categories, p. 91 102. ♀ 0.

cava (Weld). Tex. Gall on *Quercus breviloba.*
Diplolepis cava Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 22. ♀ 0.

centricola (Osten Sacken). D. C., N. J. to N. C., Mo., Ark., Tex. Gall on *Quercus stellata.*
Cynips quercus centricola Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 58. ♀ 0. Tri.
Cynips centricola Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 339, 345, 347.
Cynips quercus-rubrae Karsch, 1880. Ztschr. f. Gesam. Naturw. 53: 293. ♀ 0.

clivorum (Kinsey). Ohio. Gall on *Quercus stellata.*
Cynips (Atrusca) centricola var. *clivorum* Kinsey, 1930. Genus Cynips, p. 300. ♀ 0.
Cynips (Atrusca) (centricola) clivorum Kinsey, 1936. Higher Categories, p. 181.

congesta (Kinsey). Tex. Gall on *Quercus grisea.*
Cynips (Atrusca) bella var. *congesta* Kinsey, 1930. Genus Cynips, p. 292. ♀ 0.

cubitalis (Kinsey). Colo. Gall on *Quercus gambelii.*
Cynips (Atrusca) (dugèsi) cubitalis Kinsey, 1936. Higher Categories, p. 107. ♀ 0.

pupoides (Kinsey). Tex. Gall on *Quercus grisea.*
Cynips (Atrusca) dugèsi var. *pupoides* Kinsey, 1930. Genus Cynips, 0. 284. ♀ 0.

simulatrix (Kinsey). N. Mex., Ariz. Gall on *Quercus grisea, Q. arizonica, Q. oblongifolia, Q. gambelii.*
Cynips (Atrusca) dugèsi var. *simulatrix* Kinsey, 1930. Genus Cynips, p. 280. ♀ 0.

strians (Kinsey). Ill. Gall on *Quercus stellata.*
Cynips (Atrusca) centricola var. *strians* Kinsey, 1930. Genus Cynips, p. 304. ♀ 0.
Cynips (Atrusca) (centricola) strians Kinsey, 1936. Higher Categories, p. 181.

subnigra (Kinsey). N. Mex. Gall on *Quercus grisea.*
Cynips (Atrusca) (dugèsi) subnigra Kinsey, 1936. Higher Categories, p. 140. ♀ 0.

vanescens (Kinsey). Ariz. Gall on *Quercus grisea.*
Cynips (Atrusca) bella var. *vanescens* Kinsey, 1930. Genus Cynips, p. 292. ♀ 0.
Cynips (Atrusca) (bella) vanescens Kinsey, 1936. Higher Categories, p. 326.

Genus DISHOLCASPIS Dalla Torre and Kieffer

Holcaspis Mayr, 1881. Genera Gallenbew. Cynip., p. 35. Preocc.
Type: (*Cynips globulus* Fitch)=[*Callaspidia*] *quercus-globulus* (Fitch). Desig. by Ashmead, 1903.
Disholcaspis Dalla Torre and Kieffer, 1910. Das Tierreich, v. 24, p. 371. N. name.
Revision: Beutenmueller, 1909. Amer. Mus. Nat. Hist. Bul. 26: 29–45.

Known only from agamic females emerging in late fall from detachable stem galls on white oaks. Two species from *Quercus chrysolepis* are provisionally included. Sexual generation unknown or at least unrecognized. North America only.

acetabula Weld. Colo. Gall on *Quercus gambelii.*
Disholcaspis acetabula Weld, 1921. U. S. Natl. Mus. Proc. 59: 194. ♀ 0.

bassetti (Gillette). Mich., Ohio, Ill. Gall on *Quercus bicolor, Q. macrocarpa.*
Holcaspis bassetti Gillette, 1888. Mich. State Bd. Agr. Rpt. 27: 472. ♀ 0.

brevinota Weld. Tex. Gall on *Quercus breviloba.*
Disholcaspis brevinota Weld, 1921. U. S. Natl. Mus. Proc. 59: 197. ♀ 0.

canescens (Bassett). Calif. Gall on *Quercus douglasii, Q. lobata, Q. dumosa.*
Holcaspis canescens Bassett, 1890. Amer. Ent. Soc. Trans. 17: 66. ♀ 0.

chrysolepidis (Beutenmueller). Calif. Gall on *Quercus chrysolepis.*
Holcaspis chrysolepidis Beutenmueller, 1911. Ent. News 22: 68. ♀ 0.

cinerosa (Bassett). Tex. Gall on *Quercus virginiana.*
Cynips cinerosa Bassett, 1881. Canad. Ent. 13: 10. ♀ 0.

colorado (Gillette). Colo.
Holcaspis colorado Gillette, 1893. Ent. News 4: 210. ♀ 0.

conalis Weld. Calif. Gall on *Quercus garryana.*
Disholcaspis conalis Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 37. ♀ 0.

corallina (Bassett). Calif. Gall on *Quercus douglasii.*
Holcaspis corallina Bassett, 1890. Amer. Ent. Soc. Trans. 17: 66. ♀ 0.

eldoradensis (Beutenmueller). Calif. to Wash. Gall on *Quercus lobata, Q. dumosa, Q. garryana.*
Holcaspis eldoradensis Beutenmueller, 1909. Amer. Mus. Nat. Hist. Bul. 26: 38. ♀ 0.

fungiformis Kinsey. Tex. Gall on *Quercus virginiana.*
Disholcaspis fungiformis Kinsey, 1920. Amer. Mus. Nat. Hist. Bul. 42: 312. ♀ 0.

globosa Weld. Ill., Okla., N. Y., Va. Gall on *Quercus alba.*
Disholcaspis globosa Weld, 1921. U. S. Natl. Mus. Proc. 59: 196. ♀ 0.

heynei Kieffer. Tex.
Disholcaspis heynei Kieffer, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 4: 113. ♀.

lacuna Weld. Ariz. Gall on *Quercus gambelii.*
Disholcaspis lacuna Weld, 1921. U. S. Natl. Mus. Proc. 59: 195. ♀ 0.

mamma (Cresson). Conn. to Ill., Minn., Ark., Tex. Gall on *Quercus macrocarpa, Q. bicolor.*
Cynips q. mamma Walsh, 1869. Amer. Ent. 1: 102 (footnote). ♀ 0. Tri.
Diplolepis q. macrocarpae Karsch, 1880. Ztschr. f. Gesam. Naturw. 53: 291. ♀ 0. Tri.
Holcaspis duricoria Mayr, 1881. Genera Gallenbew. Cynip., p. 35. Nom. nud.
Holcaspis ? mamma Cresson, 1887. Synopsis Amer. Hym., p. 179.
Holcaspis duricoria Bassett, 1890. Amer. Ent. Soc. Trans. 17: 64. ♀ 0.

omnivora (Ashmead). Fla. Gall on *Quercus chapmani.*
Cynips q. omnivora Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. vi. ♀ 0. Tri.
Andricus (Andricus) omnivorus Ashmead, 1885. Amer. Ent. Soc. Trans 12: 295.

pattersoni Kinsey. Tex. Gall on *Quercus breviloba.*
Disholcaspis pattersoni Kinsey, 1922. Ind. Univ. Studies 53: 78. ♀ 0.

pedunculoides Weld. N. Mex., Ariz. Gall on *Quercus arizonica, Q. oblongifolia, Q. subturbinella.*
Disholcaspis pedunculoides Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 39. ♀ 0.

perniciosa (Bassett). Utah, Ariz., N. Mex., Colo. Gall on *Quercus gambelii, Q. fendleri.*
Holcaspis perniciosa Bassett, 1890. Amer. Ent. Soc. Trans. 17: 68. ♀ 0.
Holcaspis monticola Gillette, 1893. Ent. News 4: 30. ♀ 0.

persimilis (Ashmead). Miss. (Hattiesburg). Host record erroneous.
Holcaspis persimilis Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 126. ♀ 0.

plumbella Kinsey. Calif. Gall on *Quercus dumosa.*
Disholcaspis plumbella Kinsey, 1920. Amer. Mus. Nat. Hist. Bul. 42: 314. ♀ 0.

pruniformis Kinsey. Tex. Gall on *Quercus breviloba, Q. laceyi.*
Disholcaspis pruniformis Kinsey, 1920. Amer. Mus. Nat. Hist. Bul. 42: 315. ♀ 0.

quercus-globulus (Fitch). Eastern U. S. Gall on *Quercus alba, Q. prinoides, Q. prinus.*

Callaspidia Quercus-globulus Fitch, 1859 (1858). N. Y. State Agr. Soc. Trans. 18: 810. ♀ 0.
Cynips rugosa Bassett, 1881. Canad. Ent. 13: 100. ♀ 0.

rubens (Gillette). Colo., N. Mex., Ariz. Gall on *Quercus fendleri, Q. arizonica, Q. oblongifolia, Q. subturbinella.*
Holcaspis rubens Gillette, 1893. Ent. News 4: 29. ♀ 0.

sileri (Bassett). Utah.
Holcaspis sileri Bassett, 1890. Amer. Ent. Soc. Trans. 17: 67. ♀ 0.

simulata Kinsey. Calif. Gall on *Quercus dumosa.*
Disholcaspis simulata Kinsey, 1922. Ind. Univ. Studies 53: 79. ♀ 0.

simulata var. **vancouverensis** Kinsey. Oreg. Gall on *Quercus garryana.*
Disholcaspis simulata var. ***vancouverensis*** Kinsey, 1922. Ind. Univ. Studies 53: 81. ♀ 0.

spongiosa (Karsch). Tex., Okla., Mo., Ark., Ala., Fla., Ga. Gall on *Quercus stellata, Q. chapmani.*
Diplolepis spongiosa Karsch, 1880. Ztschr. f. Gesam. Naturw. 53: 295. ♀ 0.
Cynips q. ficula Bassett, 1881. Canad. Ent. 13: 75. ♀ 0.

succinipes (Ashmead). Fla., Ala. Gall on *Quercus virginiana.*
Cynips q. succinipes Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. xi. ♀ 0. Tri.
Andricus (Andricus) succinipes Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 295.

sulcata (Ashmead). Ariz. Gall on *Quercus arizonica, Q. oblongifolia, Q. subturbinella, Q. toumeyi.*
Cynips sulcatus Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 123. ♀ 0.

terrestris Weld. Mo., Ark., Tex., Fla., Ala., N. C., Va. Gall on *Quercus stellata, Q. margaretta.*
Disholcaspis terrestris Weld, 1921. U. S. Natl. Mus. Proc. 59: 198. ♀ 0.

truckeensis (Ashmead). Calif. Gall on *Quercus chrysolepis.*
Holcaspis truckeensis Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 127. ♀ 0.

virens (Ashmead). Fla., Ga., S. C., Miss., La., Tex. Gall on *Quercus virginiana.*
Cynips q. virens Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. x. ♀ 0. Tri.
Andricus (Andricus) virens Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 295.
Cynips q. ficigera Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. vi. ♀ 0.

washingtonensis (Gillette). Wash., Oreg., Calif. Gall on *Quercus garryana, Q. lobata, Q. dumosa, Q. douglasii.*
Cynips washingtonensis Gillette, 1894. Canad. Ent. 26: 235. ♀ 0.

Genus ANTRON Kinsey

Antron Kinsey, 1930. Genus Cynips, p. 180.
Type: ***Cynips (Antron) echinus*** var. ***schulthessae,*** form ***schulthessae*** Kinsey. Orig. desig.

acraspiformis (Weld). N. Mex. Gall on *Quercus subturbinella, Q. toumeyi.*
Diplolepis acraspiformis Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 14 ♀ 0.

clavula (Beutenmueller). Calif. Gall on *Quercus lobata.* (Secondary homonym.)
Dryophanta clavula Beutenmueller, 1911. Ent. News 22: 67. Preocc.
Cynips (Antron) teres var. ***clavuloides*** Kinsey, 1930. Genus Cynips, p. 215. N. name.

douglasii (Ashmead), agamic gen. Calif. Gall on *Quercus lobata, Q. douglasii, Q. dumosa.*
Holcaspis douglasii Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 127. ♀ 0.

douglasii (Ashmead), sex. gen. Calif. Gall on *Quercus lobata, Q. douglasii, Q. dumosa.*
Dryophanta lobata McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 13. ♀ ♂ 0.
Taxonomy: Kinsey 1930. Genus Cynips, p. 190.

dumosae (Kinsey), agamic gen. Calif. Gall on *Quercus dumosa.*
Cynips* (*Antron*) *echinus var. ***dumosae*** Kinsey, 1930. Genus Cynips, p. 199. ♀ 0.
Cynips* (*echinus*) *dumosae Kinsey, 1936. Higher Categories, p. 77.

echinus (Ashmead), agamic gen. Calif. Gall on *Quercus douglasii.*
Cynips quercus echinus Osten Sacken, 1870. Amer. Ent. Soc. Trans. 3: 56. ♀ 0. Tri.
Cynips echinus Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 295.
Andricus speciosus Bassett, 1890. Amer. Ent. Soc. Trans. 17: 81. ♀ 0.

echinus (Ashmead), sex. gen. Calif. Gall on *Quercus douglasii, Q. dumosa.*
Andricus ribes Kinsey, 1922. Ind. Univ. Studies 53: 42. ♀ ♂ 0.

echinus var. **mistum** (Kinsey). Calif. Gall on *Quercus dumosa.*
Cynips* (*Antron*) *echinus var. ***mista*** Kinsey, 1930. Genus Cynips, p. 200. ♀ 0.

echinus var. **schulthessae** (Kinsey), agamic gen. Calif. Gall on *Quercus douglasii.*
Cynips* (*Antron*) *echinus var. ***schulthessae,*** agamic form ***schulthessae*** Kinsey, 1930. Genus Cynips, p. 202. ♀ 0.

echinus var. **schulthessae** (Kinsey), sex. gen. Calif. Gall on *Quercus durata.*
Cynips* (*Antron*) *echinus var. ***schulthessae,*** bisexual form ***atrata*** Kinsey, 1930. Genus Cynips, p. 204. ♀ ♂ 0.

echinus var. **vicinum** (Kinsey), agamic gen. Calif. Gall on *Quercus douglasii.*
Cynips* (*Antron*) *echinus var. ***vicina,*** agamic form ***vicina*** Kinsey, 1930. Genus Cynips, p. 196. ♀ 0.
Cynips* (*echinus*) *vicina, agamic form, Kinsey, 1936. Higher Categories, p. 78.

echinus var. **vicinum** (Kinsey), sex. gen. Calif. Gall on *Quercus douglasii.*
Cynips* (*Antron*) *echinus var. ***vicina,*** bisexual form ***incepta*** Kinsey, 1930. Genus Cynips, p. 198. ♀ ♂ 0.

nubila (Ashmead). Ariz. Gall on *Quercus arizonica, Q. oblongifolia, Q. subturbinella, Q. toumeyi.*
Cynips q. nubila Bassett, 1881. Canad. Ent. 13: 56. ♀ 0. Tri.
Dryophanta nubila Mayr, 1881. Genera Gallenbew. Cynip., p. 39. Nom. nud.
Dryophanta nubila Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 296.

nubila var. **russum** (Kinsey). Ariz. Gall on *Quercus arizonica, Q. oblongifolia.*
Cynips* (*Acraspis*) *nubila var. ***russa*** Kinsey, 1930. Genus Cynips, p. 343. ♀ 0.

plumbeum (Weld), n. comb. Ariz. Gall on *Quercus arizonica, Q. oblongifolia.*
Cynips plumbea Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 64. ♀ 0.

Genus BELONOCNEMA Mayr

Belonocnema Mayr, 1881. Genera Gallenbew. Cynip., pp. 4, 16, 38.
Type: ***Belonocnema treatae*** Mayr. Monob.
Dryorhizoxenus Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. xxv.
Type: (***Dryorhizoxenus floridanus*** Ashmead)=[***Belonocnema treatae*** Mayr. Monob.

fossoria Weld. Fla. Pea-shaped galls on leaves of *Quercus virginiana.*
Cynips q. virens Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 57. 0 only. Nom. nud.
Belonocnema fossoria Weld, 1921. U. S. Natl. Mus. Proc. 59: 240. ♀ 0.

kinseyi Weld. Tex. Gall on *Quercus virginiana.*
Belonocnema kinseyi Weld, 1921. U. S. Natl. Mus. Proc. 59: 241. ♀ 0.

treatae Mayr. Fla. Gall on *Quercus virginiana.*
Belenocnema (!) ***Treatae*** Mayr, 1881. Genera Gallenbew. Cynip., p. 17 note. ♀ 0.
Dryorhizoxenus floridanus Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. xxv. ♀ ♂ 0.

Genus SPHAEROTERAS Ashmead

Sphaeroteras Ashmead, 1897. Psyche 8: 67.
Type: ***Biorrhiza*** (!) ***mellea*** Ashmead. Monob.

caepuliforme (Beutenmueller), n. comb. Ind., Ill., Mo., Ark., Tex., N. Y., Md., Va., Fla. Gall on several red oaks.
Biorhiza caepuliformis Beutenmueller, 1911. Ent. News 22: 69. ♀ 0.

carolina (Ashmead), n. comb. N. C., Fla., Mo., Ark., Tex. Gall on *Quercus alba, Q. stellata.*
Dryophanta carolina Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 145. ♀ 0.

melleum (Ashmead). Fla. Gall on *Quercus chapmani.*
Biorhiza mellea Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 128, 138. ♀ 0.

melleum var. **albicolens** (Kinsey). Ga. Gall on *Quercus alba.*
Cynips (Acraspis) mellea var. ***albicolens*** Kinsey, 1930. Genus Cynips, p. 336. ♀ 0.

melleum var. **anceps** (Kinsey). Tex. Gall on *Quercus breviloba.*
Cynips (Acraspis) mellea var. ***anceps*** Kinsey, 1930. Genus Cynips, p. 323. ♀ 0.

melleum var. **bifurcum** (Kinsey). Miss. Gall on *Quercus stellata.*
Cynips (Acraspis) mellea var. ***bifurca*** Kinsey, 1930. Genus Cynips, p. 325. ♀ 0.

melleum var. **comptum** (Kinsey). Tex. Gall on *Quercus stellata.*
Cynips (Acraspis) mellea var. ***compta*** Kinsey, 1930. Genus Cynips, p. 322. ♀ 0.

melleum var. **concolor** (Kinsey). Fla. Gall on *Quercus minima.*
Cynips (Acraspis) mellea var. ***concolor*** Kinsey, 1930. Genus Cynips, p. 329. ♀ 0.

melleum var. **crassius** (Kinsey). Ga. Gall on *Quercus stellata.*
Cynips (Acraspis) mellea var. ***crassior*** Kinsey, 1930. Genus Cynips, p. 335. ♀ 0.

melleum var. **litigans** (Kinsey). Ala. Gall on *Quercus stellata.*
Cynips (Acraspis) mellea var. ***litigans*** Kinsey, 1930. Genus Cynips, p. 327. ♀ 0.

ocala (Weld), n. comb. Fla. Gall on *Quercus chapmani.*
Biorhiza ocala Weld, 1921. U. S. Natl. Mus. Proc. 59: 207. ♀ ♂ 0.

rydbergiana (Cockerell), n. comb. N. Mex. Gall on *Quercus rydbergiana.*
Dryophanta rydbergiana Cockerell, 1903. Canad. Ent. 35: 217. ♀ 0.

texanum (Ashmead). Tex.
Dryophanta texana Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 145. ♀.

trimaculosum (McCracken and Egbert), n. comb. Calif. Gall on *Quercus lobata.*
Callirhytis trimaculosa McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 41. ♀ 0.

unicum (Weld), n. comb. Mo., Ark., Tex. Gall on *Quercus stellata.*
Diplolepis unica Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 34. ♀ 0.

Genus ZOPHEROTERAS Ashmead

Zopheroteras Ashmead, 1897. Canad. Ent. 29: 261.
Type: ***Acraspis vaccinii*** Ashmead. Monob.
Parateras Ashmead, 1897. Canad. Ent. 29: 262.
Type: ***Parateras hubbardi*** Ashmead. Monob.

compressum (Gillette). Iowa. Gall on *Quercus rubra.*
Acraspis compressus Gillette, 1891. Ill. State Lab. Nat. Hist. Bul. 3: 197. ♀ 0.

cuneatum Weld. Va., Mo., Ark. Gall on *Quercus alba.*
Zopheroteras cuneatum Weld, 1944. U. S. Natl. Mus. Proc. 95: 14. ♀ 0.

hubbardi (Ashmead). Mich., Ill., Md., Va., N. C. Gall on *Quercus velutina, Q. coccinea.*
Parateras hubbardi Ashmead, 1897. Canad. Ent. 29: 262. ♀.

sphaerula Weld. Ill., Mo., N. C. Gall on *Quercus rubra.*
Zopheroteras sphaerula Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 56. ♀ 0.

vaccinii (Ashmead). Fla.
Acraspis vaccinii Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 136. ♀.

Genus LOXAULUS Mayr

Loxaulus Mayr, 1881. Genera Gallenbew. Cynip., pp. 9, 12, 33.
Type: ***Loxaulus mammula*** Mayr. Monob.
Solenozopheria Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 149. N. syn.
Type: ***Solenozopheria vaccinii*** Ashmead. Monob.
Compsodryoxenus Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 128. N. syn.
Type: ***Compsodryoxenus maculipennis*** Ashmead. Desig. by Ashmead, 1903.

ashmeadi Kieffer. "U. S." Gall on *Quercus pedunculata*, introduced from England.
Loxaulus Ashmeadi Kieffer, 1902. Soc. Hist. Nat. Metz Bul. (2) 10: 4. ♀ 0.

brunneus (Ashmead), n. comb. Calif. Gall on *Quercus chrysolepis*.
Compsodryoxenus brunneus Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 129. ♀ 0.

brunneus var. **atrior** (Kinsey), n. comb. Calif. Gall on *Quercus lobata*.
Compsodryoxenus brunneus var. ***atrior*** Kinsey, 1922. Ind. Univ. Studies 53: 49. ♀ 0.

ferrugineus (Gillette), n. comb. Iowa.
Chilaspis ferruginea Gillette, 1891. Ill. State Lab. Nat. Hist. Bul. 3: 200. ♀.

humilis (Weld), n. comb. Fla. Gall on *Quercus chapmani, Q. stellata*.
Compsodryoxenus humilis Weld, 1921. U. S. Natl. Mus. Proc. 59: 190, 236. ♀ 0.

illinoisensis (Weld), n. comb. Ill. Gall on *Quercus macrocarpa*.
Compsodryoxenus illinoisensis Weld, 1921. U. S. Natl. Mus. Proc. 59: 191, 234. ♀ 0.

maculipennis (Ashmead), n. comb. Ariz.
Compsodryoxenus maculipennis Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 129. ♀ 0.

mammula Mayr. Conn., N. J., Md., Va. Gall on *Quercus alba*.
Cynips q. mammula Bassett, 1881. Canad. Ent. 13: 76. ♀ ♂ 0. Tri.
Loxaulus mammula Mayr, 1881. Genera Gallenbew. Cynip., p. 34.

pattersoni (Kinsey), n. comb. Tex. Gall on *Quercus virginiana*.
Compsodryoxenus pattersoni Kinsey, 1922. Ind. Univ. Studies 53: 49. ♀ 0.

tenuis (Weld), n. comb. Colo. Gall on *Quercus fendleri*.
Compsodryoxenus tenuis Weld, 1921. U. S. Natl. Mus. Proc. 59: 190, 235. ♀ 0.

trizonalis Weld. Calif. Gall on *Quercus chrysolepis*.
Loxaulus trizonalis Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 45. ♀ ♂ and agamic ♀ 0.

vaccinii (Ashmead), n. comb. Fla. Gall on oak (not on *Vaccinium*).
Solenozopheria vaccinii Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 134, 149. ♀.

Genus BASSETTIA Ashmead

Bassettia Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 146.
Type: ***Bassettia floridana*** Ashmead. Desig. by Ashmead, 1903.

aquaticae (Ashmead), n. comb. Fla. Gall on *Quercus nigra*.
Callirhytis aquaticae Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 144. ♀ 0.

catesbaei (Ashmead), n. comb. Fla. Gall on *Quercus catesbaei*.
Cynips q. catesbaei Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. xv. ♀ ♂ 0. Tri.
Andricus (Andricus) catesbaei Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 295.

ceropteroides (Bassett). Conn. Gall on *Quercus velutina*.
Callirhytis ceropteroides Bassett, 1900. Amer. Ent. Soc. Trans. 26: 324. ♀ 0.

corrugis (Bassett). Conn. Ovipositing in *Quercus prinoides*.
Dryophanta corrugis Bassett, 1890. Amer. Ent. Soc. Trans. 17: 71. ♀.

floridana Ashmead. Fla. Gall on *Quercus chapmani*.
Bassettia floridana Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 147. ♀.

gemmae Ashmead. Mo.
Bassettia gemmae Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 128. ♀.

herberti (Weld), n. comb. Calif. Gall on *Quercus kelloggii*.
Eumayria herberti Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 108. ♀ 0.

ligni Kinsey. Calif. Gall on *Quercus douglasii*.
Bassettia ligni Kinsey, 1922. Amer. Mus. Nat. Hist. Bul. 46: 291. ♀ 0.

pallida Ashmead. Ga.
Bassettia pallida Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 128. ♀.

tenuana Weld. Ariz., N. Mex. Gall on *Quercus gambelii*.
Bassettia tenuana Weld, 1921. U. S. Natl. Mus. Proc. 59: 190, 232. ♀ 0.

Genus EUMAYRIA Ashmead

Eumayria Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 147.
Type: ***Eumayria floridana*** Ashmead. Monob.

eldoradensis (Beutenmueller), n. comb. Oreg., Calif. Gall on *Quercus agrifolia*, *Q. wislizeni*, *Q. kelloggii*.
Andricus eldoradensis Beutenmueller, 1913. Brooklyn Ent. Soc. Bul. 8: 105. ♂.

floridana Ashmead. Fla., Va., Ind., Ill., Ark., Tex. Gall on various red oaks.
Eumayria floridana Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 147. ♀ ♂ 0.

longipennis (Ashmead). Fla. Gall on *Quercus laurifolia*.
Neuroterus longipennis Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 132, 140. ♂ 0.

Genus TRISOLENIELLA Rohwer and Fagan

Trisolenia Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 142. Preocc.
Type: ***Andricus (Trisolenia*** n. g.) ***saltatus*** Ashmead. Monob.
Trisoleniella Rohwer and Fagan, 1917. U. S. Natl. Mus. Proc. 53: 377. N. name.
Type: ***Andricus (Trisolenia) saltatus*** Ashmead. Autob.

brevicornis (Beutenmueller), n. comb. N. J. Ovipositing in *Quercus alba*.
Andricus brevicornis Beutenmueller, 1913. Amer. Ent. Soc. Trans. 39: 245. ♀.

enigma (Weld), n. comb. Ill., Tex., Fla., Va. Gall on *Quercus rubra*, *Q. catesbaei*, *Q. myrtifolia*, *Q. texana*.
Callirhytis enigma Weld, 1921. U. S. Natl. Mus. Proc. 59: 219. ♀ 0.

punctata (Ashmead). N. Y., N. J. (Secondary homonym.)
Trisolenia punctata Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 129. ♀. Preocc.
Andricus bignelli Dalla Torre, 1902. *In* Wytsman, Gen. Ins., fasc. 9, Cynipidae, p. 61. N. name.
Amphibolips montana Beutenmueller, 1913. Insecutor Inscitiae Menstruus 1: 122. ♀. N. syn.

saltata (Ashmead). Fla., N. C. Gall on *Quercus cinerea*, *Q. falcata*.
Andricus (Trisolenia n. g.) ***saltatus*** Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 142. ♀ 0.

Genus ODONTOCYNIPS Kieffer

Odontocynips Kieffer, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 4: 112.
Type: ***Odontocynips nebulosa*** Kieffer. Monob.

nebulosa Kieffer. Ga., Fla., Tex., Ark., Mo. Gall on *Quercus stellata*.
Odontocynips nebulosa Kieffer, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 4: 112. ♀.

Genus HOLOCYNIPS Kieffer

Holocynips Kieffer, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 4: 114.
Type: (***Holocynips emarginata*** Kieffer)=***Holocynips badia*** (Bassett). Monob.

badia (Bassett). Conn. to Fla.; N. Y. to Ill., Mo., Ark., Tex. Gall on *Quercus macrocarpa, Q. alba, Q. bicolor, Q. stellata, Q. primus, Q. chapmani.*
Amphibolips badius Bassett, 1900. Amer. Ent. Soc. Trans. 26: 323. ♀.
Holocynips emarginata Kieffer, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 4: 114. ♀ 0.
Callirhytis corallosa Weld, 1921. U. S. Natl. Mus. Proc. 59: 191, 216. ♀ 0.

hartmani (Weld). Calif. Gall on *Quercus chrysolepis.*
Callirhytis hartmani Weld, 1921. U. S. Natl. Mus. Proc. 59: 191, 214. ♀ 0.

humicola (Kinsey). Oreg., Calif. Gall on *Quercus kelloggii, Q. agrifolia, Q. wislizeni.*
Andricus humicola Kinsey, 1922. Amer. Mus. Nat. Hist. Bul. 46: 283. ♀ 0.

maxima (Weld). Ill., N. Y., Md., D. C., Va. Gall on *Quercus alba, Q. macrocarpa, Q. prinus, Q. bicolor.*
Callirhytis maxima Weld, 1921. U. S. Natl. Mus. Proc. 59: 191, 217. ♀ 0.

Genus PLAGIOTROCHUS Mayr

Plagiotrochus Mayr, 1881. Genera Gallenbew. Cynip., pp. 8, 12.
Type: ***Cynips ilicis*** "Fabricius." Desig. by Ashmead, 1903.

suberi Weld. Calif. Gall on introduced European cork oak, *Quercus suber.*
Plagiotrochus suberi Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 47. ♀ 0.

Genus DRYOCOSMUS Giraud

Dryocosmus Giraud, 1859. Zool.-Bot. Gesell. Wien Verh. 9: 353.
Type: ***Dryocosmus cerriphilus*** Giraud. Monob.
Entropa Foerster, 1869. Zool.-Bot. Gesell. Wien Verh. 19: 330, 334.
Type: ***Entropa lissonota*** Foerster. Monob.

albidus Weld. Va., N. Y., N. C., Ill. Gall on *Quercus coccinea, Q. velutina.*
Dryocosmus albidus Weld, 1944. U. S. Natl. Mus. Proc. 95: 15. ♀ 0.

asymmetricus (Kinsey), n. comb. Calif. Gall on *Quercus chrysolepis.*
Plagiotrichus (!) ***asymmetricus*** Kinsey, 1922. Ind. Univ. Studies 53: 106. ♀ 0.

asymmetricus var. **annectens** (Kinsey), n. comb. Calif. Gall on *Quercus chrysolepis.*
Plagiotrichus (!) ***asymmetricus*** var. ***annectens*** Kinsey, 1922. Ind. Univ. Studies 53: 107. ♀ 0.

asymmetricus var. **compactus** (Kinsey), n. comb. Calif. Gall on *Quercus chrysolepis.*
Plagiotrichus (!) ***asymmetricus*** var. ***compactus*** Kinsey, 1922. Ind. Univ. Studies 53: 108. ♀ 0.

attractans (Kinsey), n. comb. Calif. Gall on *Quercus wislizeni.*
Andricus attractans Kinsey, 1922. Amer. Mus. Nat. Hist. Bul. 46: 281. ♂ 0.

bicornis (McCracken and Egbert), n. comb. Calif. Gall on *Quercus agrifolia.*
Callirhytis bicornis McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 42. ♀ 0.

castanopsidis (Beutenmueller), n. comb. Oreg., Calif. Gall on *Castanopsis sempervirens, C. chrysophylla.*
Andricus castanopsidis Beutenmueller, 1917. Canad. Ent. 49: 345. ♀ 0.

cinereae (Ashmead), n. comb. Fla., S. C., Va., Pa., N. Y., Ill., Mo., Tex. Gall on *Quercus cinerea* and other red oaks.
Dryophanta cinereae Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 144. ♀ 0.
Andricus (Callirhytis) saccularius Bassett, 1890. Amer. Ent. Soc. Trans. 17: 76. ♂ 0.

coxii (Bassett), n. comb. N. Mex., Ariz. Gall on *Quercus emoryi.*
Cynips coxii Bassett, 1881. Canad. Ent. 13: 112. ♀ 0.

Andricus coxi Bassett, 1900. Amer. Ent. Soc. Trans. 26: 320. ♀ 0.
Andricus Bassettianus Dalla Torre and Kieffer, 1902. *In* Wytsman, Gen. Ins., fasc. 9, Cynipidae, p. 61. N. name. (Unnecessarily proposed.)

coxii var. **translatus** (Kinsey), n. comb. Ariz. Gall on *Quercus hypoleuca.*
Plagiotrichus (!) *coxii* var. *translatus* Kinsey, 1922. Ind. Univ. Studies 53: 125. ♀ 0.

deciduus (Beutenmueller). N. C., Va., Md., Ill., Mo., Tenn. Gall on *Quercus rubra, Q. velutina.*
Andricus decidua Beutenmueller, 1913. Insecutor Inscitiae Menstruus 1: 131. ♀ 0.

dubiosus (Fullaway), n. comb. Calif. Gall on *Quercus agrifolia.*
Diplolepis dubiosa Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 339. ♀ ♂ 0.

favus Beutenmueller. La., Tex., Ark., Mo., Ill.; Fla. to Pa. Gall on various red oaks.
Dryocosmus favus Beutenmueller, 1911. Ent. News 22: 197. ♀ 0.

floridensis (Beutenmueller). Fla. west to Tex., Okla.; north to Va. Gall on various red oaks.
Dryophanta floridensis Beutenmueller, 1917. Canad. Ent. 49: 349. ♀ 0.
Andricus peltatus Wells and Metcalf, 1921. Canad. Ent. 53: 212. ♀ 0.

gigas (Kinsey), n. comb. Calif. Gall on *Quercus douglasii.*
Andricus gigas Kinsey, 1922. Amer. Mus. Nat. Hist. Bul. 46: 282. ♀ ♂ 0.

imbricariae (Ashmead). N. Y. to Mo., Okla., Tex.; Conn. to Fla. Gall on various red oaks.
Andricus imbrecariae (!) Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 122. ♀ 0.
Holcaspis fasciata Bassett, 1900. Amer. Ent. Soc. Trans. 26: 328. ♀ 0.

laurifoliae (Ashmead), n. comb. Fla. Gall on *Quercus laurifolia, Q. nigra.*
Spathegaster q. laurifoliae Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. xvii. ♀ ♂ 0. Tri.
Cynips q. aquaticae Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. xvi. ♀ ♂ 0. Tri.
Dryophanta laurifoliae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 296.
Dryophanta aquaticae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 296. N. syn.

notha (Ashmead), n. comb. N. Y., Conn., N. J., Md., Va., Fla., Ill. Gall on *Quercus palustris* and other red oaks.
Cynips q. notha Osten Sacken, 1870. Amer. Ent. Soc. Trans. 3: 55. ♀ ♂ 0. Tri.
Andricus (*Callirhytis*) *notha* Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 295.
Andricus (*Callirhytis*) *pusulatoides* Bassett, 1890. Amer. Ent. Soc. Trans. 17: 74. ♀ 0.

palustris (Ashmead). Ottawa to Iowa; Mass. to Fla., La. Gall on various red oaks.
Cynips (*Trigonaspis* ?) *quercus palustris* Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 62. ♀ ♂ 0. Tri.
Andricus (*Callirhytis*) *palustris* Mayr, 1881. Genera Gallenbew. Cynip., p. 28. Nom. nud.
Andricus (*Callirhytis*) *palustris* Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 294.
Dryophanta liberaecellulae Gillette, 1890. Ent. Amer. 6: 24. ♀ ♂ 0. N. syn.

rileyi (Ashmead). Mo. to Tex.; N. Y. to Fla., Miss. Gall on various red oaks.
Andricus rileyi Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 121. ♀ 0.

Genus HETEROECUS Kinsey

Heteroecus Kinsey, 1922. Ind. Univ. Studies 53: 81.
Type: *Andricus dasydactyli* Ashmead. Orig. desig.

chrysolepidis (Ashmead). Calif. Gall on *Quercus chrysolepis.*
Andricus chrysolepidis Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 119. ♀ 0.

dasydactyli (Ashmead). Calif. Gall on *Quercus chrysolepis.*
Andricus dasydactyli Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 117. ♀ 0.

dasydactyli var. **pygmaeus** Kinsey. Calif. Gall on *Quercus chrysolepis.*
Heteroecus dasydactyli var. *pygmaeus* Kinsey, 1922. Ind. Univ. Studies 53: 91. ♀ 0.

eriophora (Kieffer). Calif.
Callirhytis eriophora Kieffer, 1904. Soc. Hist. Nat. Metz Bul. (2) 11: 132. ♀ 0.

flavens (McCracken and Egbert), n. comb. Calif. Gall on *Quercus vaccinifolia.*
Callirhytis flavens McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 40. ♀ 0.

malus Kinsey. Calif. Gall on *Quercus chrysolepis.*
Heteroecus malus Kinsey, 1922. Ind. Univ. Studies 53: 92. ♀ 0.

melanoderma Kinsey. Calif. Gall on *Quercus chrysolepis.*
Heteroecus melanoderma Kinsey, 1922. Ind. Univ. Studies 53: 92. ♀ 0.

pacificus (Ashmead). Calif. Gall on *Quercus chrysolepis.*
Andricus pacificus Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 118. ♀ 0.
Callirhytis bakeri Kieffer, 1904. Soc. Hist. Nat. Metz Bul. (2) 11: 132. ♀ 0.

pacificus var. **gracilis** Kinsey. Calif. Gall on *Quercus chrysolepis.*
Heteroecus pacificus var. *gracilis* Kinsey, 1922. Ind. Univ. Studies 53: 95. ♀ 0.

pacificus var. **subpacificus** Kinsey. Calif. Gall on *Quercus chrysolepis.*
Heteroecus pacificus var. *subpacificus* Kinsey, 1922. Ind. Univ. Studies 53: 95. ♀ 0.

sanctae-clarae (Fullaway). Calif. Gall on *Quercus chrysolepis.*
Callirhytis sanctae-clarae Fullaway, 1911. Ent. Soc. Amer. Ann. 4: 363. ♀ 0

sanctae-clarae var. **aliud** Kinsey. Calif. Gall on *Quercus chrysolepis.*
Heteroecus sanctae-clarae var. *aliud* Kinsey, 1922. Ind. Univ. Studies 53: 98. ♀ 0.

sanctae-clarae var. **fuscior** Kinsey. Calif. Gall on *Quercus chrysolepis.*
Heteroecus sanctae-clarae var. *fuscior* Kinsey, 1922. Ind. Univ. Studies 53: 98. ♀ 0.

Genus CALLIRHYTIS Foerster

Callirhytis Foerster, 1869. Zool.-Bot. Gesell. Wien, Verh. 19: 331, 335.
Type: *Callirhytis hartigi* Foerster. Monob.

agrifoliae (Ashmead). Calif. Gall on *Quercus agrifolia, Q. wislizeni, Q. kelloggii.*
Cynips q. agrifoliae Bassett, 1881. Canad. Ent. 13: 53. ♀ 0. Tri.
Andricus (Callirhytis) agrifoliae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 294.
Andricus wisliceni (!) Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 119. ♀ 0. N. syn.
Callirhytis clarimontis Kieffer, 1904. Soc. Hist. Nat. Metz Bul. (2) 11: 132. ♀ 0. N. syn.

apicalis (Ashmead). Calif. Gall on *Quercus wislizeni, Q. agrifolia, Q. kelloggii.*
Andricus apicalis Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 120. ♀ 0.

attigua Weld. Tex. Gall on *Quercus texana.*
Callirhytis attigua Weld, 1926. U. S. Natl. Mus. Proc. 68 (10): 88. ♀ 0.

balanacea Weld. Va., N. Y., Mo. Gall on *Quercus palustris.*
Callirhytis balanacea Weld, 1944. U. S. Natl. Mus. Proc. 95: 16. ♀ 0.

balanaspis Weld. Ark., Mo., Tex., Va., D. C. Gall on *Quercus marilandica.*
Callirhytis balanaspis Weld, 1922. U. S. Natl. Mus. Proc. 61 (19): 22. ♀ 0.

balanoides Weld. Mo., Tex., Ill., N. Y., Va. Gall on *Quercus velutina.*
Callirhytis balanoides Weld, 1922. U. S. Natl. Mus. Proc. 61 (19): 27. ♀ 0.

balanopsis Weld. Mo., Ark., Tex., Ala., Miss., Ga., Va. Gall on *Quercus marilandica.*
Callirhytis balanopsis Weld, 1922. U. S. Natl. Mus. Proc. 61 (19): 26. ♀ 0.

balanosa Weld. Ill. Gall on *Quercus coccinea.*
Callirhytis balanosa Weld, 1922. U. S. Natl. Mus. Proc. 61 (19): 19. ♀ 0.

batatoides (Ashmead). Fla., Ga., S. C., Ala., Miss., La. Gall on *Quercus virginiana.*
Cynips* (*Dryocosmus* ?) *quercus batatoides Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. xi. ♀ 0. Tri.
Cynips batatoides Packard, 1881. U. S. Ent. Comn. Bul. 7: 57. Nom. nud.
Andricus* (*Andricus*) *batatoides Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 296.

bipapillata Weld. Va., N. Y. Gall on *Quercus ilicifolia.*
Callirhytis bipapillata Weld, 1944. U. S. Natl. Mus. Proc. 95: 17. ♀ ♂ 0.

blastophaga (Ashmead). Fla. Gall on *Quercus cinerea.*
Andricus blastophagus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 143. ♀ 0.

carmelensis Weld. Calif. Gall on *Quercus agrifolia, Q. wislizeni.*
Callirhytis carmelensis Weld, 1922. U. S. Natl. Mus. Proc. 61 (19): 20. ♀ 0.

clarkei (Bassett). Mass., N. J., Va. Gall on *Quercus ilicifolia.*
Andricus* (*Callirhytis*) *clarkei Bassett, 1890. Amer. Ent. Soc. Trans. 17: 79. ♀ 0.

clavigera (Ashmead). Fla. Gall on *Quercus laurifolia.*
Cynips q. clavigera Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. xxvii. ♀ 0. Tri.
Andricus* (*Andricus*) *clavigerus Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 295.

clavula (Osten Sacken). D. C., N. J., N. Y., Mass., Pa., Ill., Iowa, N. C. Gall on *Quercus alba.*
Cynips clavula Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 351. ♀ 0.

confusa (Ashmead), n. comb. Fla. Gall on *Quercus laurifolia.* Adults in April.
Cynips q. confusa Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. xviii. ♀ 0. Tri.
Neuroterus confusa Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 296.

congregata (Ashmead). Calif. Gall on *Quercus agrifolia, Q. wislizeni.*
Andricus congregatus Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 120. ♀ 0.

cornigera (Osten Sacken). Mass. to Iowa; south to Ga. Gall on *Quercus palustris* and other red oaks.
Cynips cornigera Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 358. ♀ 0.

corrugis (Bassett). Conn., Va. Gall on *Quercus velutina.*
Cynips corrugis Bassett, 1881. Canad. Ent. 13: 109. ♀.
Callirhytis defecta Kieffer, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 4: 116. ♀.

cressoni (Beutenmueller). Tex. Gall on *Quercus stellata.*
Dryophanta cressoni Beutenmueller, 1913. Amer. Ent. Soc. Trans. 39: 247. ♀ 0.

crypta (Ashmead). Fla., Ga., Ala., Miss., Tex. Gall on *Quercus cinerea, Q. marilandica.*
Andricus cryptus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 145. ♀ 0.

cryptica Weld. Fla., Ala. Gall on *Quercus myrtifolia.*
Callirhytis cryptica Weld, 1922. U. S. Natl. Mus. Proc. 61 (18): 19. ♀ 0.

difficilis (Ashmead). Ga. to Tex., Ark., Mo. Gall on *Quercus phellos, Q. nigra, Q. myrtifolia.*
Andricus difficilis Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 143. ♀ 0.

electrea Weld. Va., D. C., Md. Gall on *Quercus prinus.*
Callirhytis electrea Weld, 1944. U. S. Natl. Mus. Proc. 95: 18. ♀ 0.

ellipsoida Weld. Ill. Gall on *Quercus bicolor.*
Callirhytis ellipsoida Weld, 1921. U. S. Natl. Mus. Proc. 59: 227. ♀ 0.

elliptica Weld. Ill., Pa., D. C., Va. Gall on *Quercus alba.*
Callirhytis elliptica Weld, 1921. U. S. Natl. Mus. Proc. 59: 228. ♀ 0.

elongata (Kinsey), n. comb. Tex. Gall on *Quercus breviloba.*
Plagiotrichus (!) ***elongatus*** Kinsey, 1922. Ind. Univ. Studies 53: 125. ♀ 0.

elongata var. **rufopleurae** (Kinsey), n. comb. Tex. Gall on *Quercus breviloba.*
Plagiotrichus (!) ***elongatus*** var. ***rufopleurae*** Kinsey, 1922. Ind. Univ. Studies 53: 128. ♀ 0.

elongata var. **stellatae** (Kinsey), n. comb. Tex. Gall on *Quercus stellata.*
Plagiotrichus (!) ***elongatus*** var. ***stellatae*** Kinsey, 1922. Ind. Univ. Studies 53: 128. ♀ 0

excavata (Ashmead). New England, N. C. Gall on *Quercus rubra*.
Andricus excavatus Ashmead, 1896. U. S. Nat. Mus. Proc. 19: 121. ♀ 0.

exigua (Bassett). Conn., D. C., Va. Gall on *Quercus stellata*.
Andricus exiguus Bassett, 1900. Amer. Ent. Soc. Trans. 26: 318. ♀ ♂ 0.

favosa (Bassett). Ohio, Pa., N. Y., Md., Va. Gall on *Quercus velutina, Q. palustris*.
Neuroterus favosus Bassett, 1890. Amer. Ent. Soc. Trans. 17: 87. ♀ ♂ 0.

flavipes (Gillette). Iowa, Ill., Minn. Gall on *Quercus macrocarpa*.
Neuroterus flavipes Gillette, 1889. Iowa Agr. Expt. Sta. Bul. 7: 281. ♀ ♂ 0.

flora Weld. Calif. Gall on *Quercus wislizeni, Q. agrifolia*.
Callirhytis flora Weld, 1922. U. S. Natl. Mus. Proc. 61 (18): 20. ♀ 0.

florensis Weld. Va. Gall on *Quercus marilandica*.
Callirhytis florensis Weld, 1944. U. S. Natl. Mus. Proc. 95: 19. ♀ ♂ 0.

floridana (Ashmead). Fla., La., Ark., Mo., N. C., D. C., Md., Va. Gall on *Quercus chapmani, Q. stellata*.
Andricus floridanus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 137. ♀ ♂ 0.

frequens (Gillette). Colo., N. Mex., Ariz. Gall on *Quercus undulata, Q. gambelii*.
Andricus frequens Gillette, 1892. Ent. News 3: 247. ♀ 0.

frequens var. **piceoderma** (Kinsey), n. comb. Colo.
Plagiotrichus (!) *frequens* var. *piceoderma* Kinsey, 1922. Ind. Univ. Studies 53: 131. ♀.

fructicola Ashmead. Pa., Va., S. C., Tenn. Gall on *Quercus velutina, Q. marilandica, Q. ilicifolia*.
Callirhytis fructicola Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 131. ♀ 0.

fructuosa Weld. Ill., Mo., Tex., Ala., Ga., S. C., N. C., Md., Va., N. Y. Gall on various red oaks.
Callirhytis fructuosa Weld, 1922. U. S. Natl. Mus. Proc. 61 (19): 14. ♀ 0.

fulva Weld. Calif. Gall on *Quercus chrysolepis*.
Callirhytis fulva Weld, 1921. U. S. Natl. Mus. Proc. 59: 226. ♀ 0.

futilis (Osten Sacken). Mass. to Wis., Okla., Ark.; south to Va. Gall on *Quercus alba, Q. prinus*.
Cynips quercus futilis Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 63. ♂ 0. Tri.
Cynips quercus papillata Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 64. ♂ 0.
Cynips (*Andricus*) *futilis* Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 346, 349, 352.
Cynips papillata Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 346, 352.
Callirhytis radicis Bassett, 1889. Psyche 5: 237. Agamic ♀. Preocc.
Andricus radicicola Dalla Torre, 1893. Cat. Hym., v. 2, p. 95. N. name.

gallaestriatae Weld. Ill., Va., N. Y., N. C. Gall on *Quercus rubra, Q. velutina, Q. coccinea, Q. palustris*.
Callirhytis gallaestriatae Weld, 1926. U. S. Natl. Mus. Proc. 68 (10) 92. ♀ 0.

gemmaria (Ashmead). Fla., Ga., Va., N. J., Mass., Ind., Ill., Tex. Gall on *Quercus cinerea* and other red oaks.
Cynips q. gemmaria Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. ix. ♀ 0. Tri.
Andricus (*Andricus*) *gemmarius* Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 295.

gemmiformis (Beutenmueller). N. J., N. Y., Md., Va., Ill. Gall on *Quercus alba*.
Andricus gemmiformis Beutenmueller, 1917. Canad. Ent. 49: 346. ♀ 0.

glandulus (Beutenmueller). N. J. Ovipositing on *Quercus prinoides*.
Andricus glandulus Beutenmueller, 1913. Brooklyn Ent. Soc. Bul. 8: 103. ♀.

infuscata (Ashmead). Fla., Ga. Gall on *Quercus catesbaei* and other red oaks of coast plain.
Andricus infuscatus Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 144. ♀ 0.

juvenca Weld. Ariz., N. Mex. Gall on *Quercus gambelii, Q. arizonica*.
Callirhytis juvenca Weld, 1944. U. S. Natl. Mus. Proc. 95: 20. ♀ 0.

lanata (Gillette). Minn. to Ark., Tex.; Mass. to N. C., Ala. Gall on *Quercus rubra, Q. coccinea.*
Dryophanta lanata Gillette, 1891. Ill. State Lab. Nat. Hist. Bul. 3: 198. ♀ 0.

lapillula Weld. Ill., D. C. Gall on *Quercus bicolor.*
Callirhytis lapillula Weld, 1922. U. S. Natl. Mus. Proc. 61 (19): 18. ♀ 0.

lupana Weld. Ariz. Gall on *Quercus emoryi, Q. hypoleuca.*
Callirhytis lupana Weld, 1944. U. S. Natl. Mus. Proc. 95: 21. ♀ ♂ 0.

lustrans (Beutenmueller). Ga., Fla., Tex., Okla., Mo., N. Y. Gall on *Quercus stellata.*
Acraspis vaccinii Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 136. 0 only. Nom. nud.
Andricus lustrans Beutenmueller, 1913. Amer. Ent. Soc. Trans. 39: 244. ♀.
Andricus impositus Beutenmueller, 1918. Ent. News 29: 329. ♀ 0.
Andricus dimorphus var. *verifactor* Kinsey, 1922. Ind. Univ. Studies 53: 15. ♀ 0.

marginata Weld. Ill. Gall on *Quercus coccinea.*
Callirhytis marginata Weld, 1921. U. S. Natl. Mus. Proc. 59: 225. ♀ 0.

medullae (Ashmead). Fla. Gall on *Quercus cinerea.*
Cynips q. medullae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: Proc. viii. ♀ 0. Tri.
Andricus (Andricus) medullae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 295.

middletoni Weld. D. C., Va., Fla., Ala. Gall on *Quercus phellos.*
Callirhytis middletoni Weld, 1922. U. S. Natl. Mus. Proc. 61 (19): 25. ♀ 0.

milleri Weld. Calif. Gall on *Quercus agrifolia, Q. kelloggii, Q. wislizeni.*
Callirhytis milleri Weld, 1922. U. S. Natl. Mus. Proc. 61 (19): 11. ♀ 0.
Callirhytis essigi McCracken and Egbert, 1922. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 3 (1): 43. ♀ 0.

modesta (Osten Sacken). D. C., Conn., N. Y., Va., Ind., Okla., Tex. Gall on *Quercus rubra, Q. velutina.*
Cynips quercus modesta Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 65. ♀ 0. Tri.
Cynips modesta Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 346, 349, 357, 379.
Cynips papula Bassett, 1881. Canad. Ent. 13: 107. ♀ 0.

morrisoni (Ashmead). Ariz.
Andricus morrisoni Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 116. ♀ ♂ 0.

myrtifoliae (Beutenmueller). Fla. Gall on *Quercus myrtifolia.*
Andricus myrtifoliae Beutenmueller, 1917. Canad. Ent. 49: 346. ♀ ♂ 0.

nigrae (Ashmead). D. C., Va., N. C., Mo., Ark. Gall on *Quercus marilandica.*
Cynips quercus nigrae Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 66. ♀ ♂ 0. Tri.
Andricus (Callirhytis) nigrae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 294.

obtusilobae (Bassett). Conn. Gall on *Quercus stellata.*
Andricus obtusilobae Bassett, 1900. Amer. Ent. Soc. Trans. 26: 316. ♀.

operator (Osten Sacken), sex. gen. Nova Scotia to Iowa; south to Va., N. C., Mo., Ark. Gall on *Quercus marilandica* and other red oaks.
Cynips quercus operator Osten Sacken, 1862. Ent. Soc. Phila. Proc. 1: 256. ♀ ♂ 0. Tri.
Cynips operator Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 357.
Andricus operator var. *consobrinus*, form *consobrinus* Kinsey, 1922. Ind. Univ. Studies 53: 26. ♀ ♂ 0. N. syn.

operator (Osten Sacken), agamic gen. Ottawa to Muskoka; south to Va., Mo., Tex.
Andricus operatola Bassett, 1900. Amer. Ent. Soc. Trans. 26: 315. Agamic ♀.

operator var. **austrior** (Kinsey), n. comb., sex. gen. Tex. Gall on *Quercus schneckii.*
Andricus operator var. *austrior*, form *austrior* Kinsey, 1922. Ind. Univ. Studies 53: 26. ♀ ♂ 0.

operator var. **falsa** (Kinsey), n. comb., sex. gen. R. I. Gall on *Quercus ilicifolia.*
Andricus operator var. ***falsus,*** form ***falsus*** Kinsey, 1922. Ind. Univ. Studies 53: 27. ♀ ♂ 0.

operator var. **illustrans** (Kinsey), n. comb., sex. gen. N. H. Gall on *Quercus ilicifolia.*
Andricus operator var. ***illustrans,*** form ***illustrans*** Kinsey, 1922. Ind. Univ. Studies 53: 28. ♀ ♂ 0.

ovata Weld. Fla., Tex., Ark. Gall on *Quercus catesbaei, Q. cinerea, Q. myrtifolia, Q. texana.*
Callirhytis ovata Weld, 1921. U. S. Natl. Mus. Proc. 59: 222. ♀ 0.

ovata var. **melanica** (Kinsey), n. comb. Tex. Gall on *Quercus schneckii.*
Andricus ovata var. ***melanicus*** Kinsey, 1922. Ind. Univ. Studies 53: 32. ♀ 0.

parva Weld. Va., W. Va., Mo. Gall on *Quercus imbricaria.*
Callirhytis parva Weld, 1922. U. S. Natl. Mus. Proc. 61 (18): 23. ♀ ♂ 0.

parvifoliae Ashmead. Fla. Gall on *Quercus chapmani.*
Callirhytis parvifoliae Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 138. ♀ 0.

parvula (Bassett), n. comb. Conn. Gall on *Quercus ilicifolia.*
Dryophanta parvula Bassett, 1900. Amer. Ent. Soc. Trans. 26: 326. ♀.

patiens (Bassett). Conn. Ovipositing on *Quercus ilicifolia.*
Andricus patiens Bassett, 1900. Amer. Ent. Soc. Trans. 26: 312. ♀.

pedunculata (Bassett). Conn., N. Y., Ill., Va. Gall on *Quercus rubra, Q. coccinea.*
Dryophanta pedunculata Bassett, 1890. Amer. Ent. Soc. Trans. 17: 72. ♀ ♂ 0.

perdens (Kinsey), n. comb. Oreg., Calif. Gall on *Quercus kelloggii, Q. wislizeni, Q. agrifolia.*
Andricus perdens Kinsey, 1922. Amer. Mus. Nat. Hist. Bul. 46: 286. ♀ 0.

perdens var. **destructor** (Kinsey), n. comb. Calif. Gall on *Quercus wislizeni.*
Plagiotrichus (!) ***perdens*** var. ***destructor*** Kinsey, 1922. Ind. Univ. Studies 53: 134. ♀ 0.

perditor (Bassett). Conn., N. Y., N. J., Va. Gall on *Quercus ilicifolia.*
Andricus perditor Bassett, 1900. Amer. Ent. Soc. Trans. 26: 313. ♀ 0.

perfoveata (Kinsey), n. comb. Calif. Gall on *Quercus kelloggii, Q. agrifolia.*
Andricus perfoveatus Kinsey, 1922. Amer. Mus. Nat. Hist. Bul. 46: 287. ♀ 0.

perplexa (Ashmead), n. comb. Mo.
Andricus perplexus Ashmead, 1896. U. S. Natl. Mus. Proc. 19: 122. ♀ 0.

perrugosa Weld. Va., D. C., Md., N. J., Pa. Ovipositing on *Quercus alba.*
Callirhytis perrugosa Weld, 1944. U. S. Natl. Mus. Proc. 95: 22. ♀.

petrina Weld. Ariz. Gall on *Quercus hypoleuca.*
Callirhytis petrina Weld, 1922. U. S. Natl. Mus. Proc. 61 (19): 13. ♀ 0.

petrosa Weld. Tex., Fla., Ga. Gall on *Quercus cinerea.*
Callirhytis petrosa Weld, 1922. U. S. Natl. Mus. Proc. 61 (19): 15. ♀ 0.

phellos (Ashmead). Va., Md., D. C. Gall on *Quercus phellos.*
Cynips quercus phellos Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 70. ♀ 0. Tri.
Amphibolips phellos Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 294.

pigra (Bassett). Conn., Md., Va., W. Va., N. C., Fla., N. Y., Ill., Mo. Gall on *Quercus velutina, Q. coccinea.*
Cynips pigra Bassett, 1881. Canad. Ent. 13: 105. ♀ 0.
Callirhytis cellae Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 141. ♀ 0. N. syn.

piperoides (Bassett). Maine to Ill.; south to Va., N. C. Gall on *Quercus rubra* and other red oaks.
Andricus piperoides Bassett, 1900. Amer. Ent. Soc. Trans. 26: 314. ♀ 0.

pomiformis (Ashmead). Calif. Gall on *Quercus agrifolia, Q. wislizeni.*
Cynips q. pomiformis Bassett, 1881. Canad. Ent. 13: 74. ♀ 0. Tri.
Andricus (Andricus) pomiformis Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 295.

Callirhytis rossi Kieffer, 1903. Marcellia 2: 84. ♀ 0. N. syn.
Callirhytis maculipennis Kieffer, 1904. Soc. Hist. Nat. Metz Bul. (2) 11: 131. ♀ 0.
Andricus yosemite Beutenmueller, 1911. Canad. Ent. 43: 211. ♀ 0. N. syn.

pomiformis var. **descansonis** (Kinsey), n. comb. Calif. Gall on *Quercus agrifolia.*
Andricus pomiformis var. *descansonis* Kinsey, 1922. Ind. Univ. Studies 53: 41. ♀ 0.

pomiformis var. **distincta** (Kinsey), n. comb. Calif. Gall on *Quercus wislizeni.*
Andricus pomiformis var. *distinctus* Kinsey, 1922. Ind. Univ. Studies 53: 38. ♀ 0.

pomiformis var. **provincialis** (Kinsey), n. comb. Calif. Gall on *Quercus wislizeni.*
Andricus pomiformis var. *provincialis* Kinsey, 1922. Ind. Univ. Studies 53: 40. ♀ 0.

pulchra (Bassett). Mass., N. Y., Va., Ill. Gall on *Quercus rubra, Q. velutina.*
Andricus (Callirhytis) pulchra Bassett, 1890. Amer. Ent. Soc. Trans. 17: 73. ♀ ♂ 0.

punctata (Osten Sacken). Toronto to Ill.; Maine to Va., N. C. Gall on *Quercus velutina, Q. coccinea, Q. palustris.*
Cynips q. punctata Bassett, 1863. Ent. Soc. Phila. Proc. 2: 323. ♀ 0. Tri.
Cynips q. podagrae Walsh, 1864. Ent. Soc. Phila. Proc. 2: 491. ♀ 0. Tri.
Cynips punctata Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 358.
Cynips podagrae Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 358.

quercifoliae (Ashmead). Fla. Gall on *Quercus catesbaei.*
Andricus quercifoliae Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 299. ♂ 0.

rubida Weld. Ill., Ind., Pa., Md. Gall on *Quercus coccinea, Q. rubra.*
Callirhytis rubida Weld, 1921. U. S. Natl. Mus. Proc. 59: 224. ♀ 0.

rugosa (Ashmead). Fla., Va., Md., N. Y., Ill. Gall on *Quercus laurifolia, Q. phellos, Q. imbricaria.*
Cynips q. rugosa Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. xviii. ♀ ♂ 0. Tri.
Andricus (Andricus) rugosus Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 295.

rugulosa (Beutenmueller). N. J., D. C., Va., Ind., Ill. Gall on *Quercus rubra, Q. velutina.*
Andricus rugulosus Beutenmueller, 1911. Canad. Ent. 43: 211. ♀ 0.

scitula (Osten Sacken). Conn., Mass., N. Y., N. J., Va., Ind., Ill. Gall on *Quercus velutina, Q. coccinea.*
Cynips q. scitula Bassett, 1864. Ent. Soc. Phila. Proc. 3: 683. ♀ ♂ 0. Tri.
Cynips scitula Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 341, 358.

seminator (Harris). Quebec to Minn., Iowa; south to S. C., Fla. Gall on *Quercus alba.*
Cynips seminator Harris, 1841. Rpt. Ins. Mass. Injurious to Veg., p. 399. ♀ 0.

seminosa (Bassett). Ohio, N. Y., Va. Gall on *Quercus coccinea, Q. palustris.*
Andricus (Callirhytis) seminosus Bassett, 1890. Amer. Ent. Soc. Trans. 17: 76. ♀ 0.

serricornis (Kinsey), n. comb. Calif. Gall on *Quercus wislizeni, Q. agrifolia.*
Andricus serricornis Kinsey, 1922. Amer. Mus. Nat. Hist. Bul. 46: 288. ♀ ♂ 0.

similis (Osten Sacken). Conn., Mass., N. Y., Md., Ga., Fla., Tex. Gall on *Quercus ilicifolia* and other red oaks.
Cynips q. similis Bassett, 1864. Ent. Soc. Phila. Proc. 3: 685. ♀ ♂ 0. Tri.
Cynips similis Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 356.

suttoni (Ashmead). Calif. Gall on *Quercus agrifolia.*
Cynips Q. Suttonii Bassett, 1881. Canad. Ent. 13: 54. ♀ 0. Tri.
Andricus (Callirhytis) Suttoni Mayr, 1881. Genera Gallenbew. Cynip., p. 28. Nom. nud.
Andricus (Callirhytis) Suttoni Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 294.
Callirhytis polythyra Kieffer, 1904. Soc. Hist. Nat. Metz Bul. (2) 11: 132. ♀ 0. N. syn.

suttoni var. **lustrior** (Kinsey), n. comb. Calif. Gall on *Quercus agrifolia.*
Plagiotrichus (!) ***suttonii*** var. ***lustrior*** Kinsey, 1922. Ind. Univ. Studies 53: 137. ♀ 0.

tuberosa (Bassett). Conn., Mass., N. J. Gall on *Quercus ilicifolia.*
Andricus (***Callirhytis***) ***tuberosa*** Bassett, 1900. Amer. Ent. Soc. Trans. 26: 311. ♀ ♂ 0.

tubicola (Osten Sacken). D. C., Va., Miss., Okla., Tex. Gall on *Quercus stellata.*
Cynips tubicola Osten Sacken, 1861. Ent. Soc. Phila. Proc. 1: 60. ♀ 0.
Andricus texanus Beutenmueller, 1909. Ent. News 20: 248. ♀ 0. N. syn.

tumifica (Osten Sacken). N. Y., Ill., Iowa, Va., N. C. Gall on *Quercus velutina, Q. rubra.*
Cynips tumifica Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 356. ♀ ♂ 0.

turnerii (Ashmead). Fla. Gall on *Quercus nigra.*
Cynips q. Turnerii Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. xvi. ♀ 0. Tri.
Andricus (***Andricus***) ***Turnerii*** Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 295.
Andricus topiarius Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 136. ♀ 0.

uvellae Weld. Calif. Gall on *Quercus wislizeni, Q. agrifolia.*
Callirhytis uvellae Weld, 1944. U. S. Natl. Mus. Proc. 95: 23. ♀ 0.

ventricosa (Osten Sacken). Conn., Mass. to Ala., Miss.; west to Ind., Ill. Gall on *Quercus ilicifolia, Q. imbricaria, Q. phellos.*
Cynips q. ventricosus Bassett, 1864. Ent. Soc. Phila. Proc. 3: 681. ♀ 0. Tri.
Cynips ventricosus Osten Sacken, 1865. Ent. Soc. Phila. Proc. 4: 358.
Cynips q. conifera Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. xxvii. ♀ 0. Tri.
Neuroterus coniferus Ashmead, 1885. Amer. Ent. Soc. Trans. 12: 296.

Genus Undetermined

Descriptions inadequate for assignment to genus.

Cynips (***Neuroterus***) ***crassitellus*** Provancher, 1881. Nat. Canad. 12: 233. ♀. Unique type in Quebec in bad condition.

Cynips (***Andricus***) ***gibbosus*** Provancher, 1881. Nat. Canad. 12: 232. ♀ ♂. Types in Quebec.

Neuroterus laurifoliae Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 140. ♀. Type lost.

Cynips maculatus Blanchard, 1840. Hist. Nat. Ins. 3: 250. "Carolina."

Eucoila minor Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 398. ♀.

Cynips (***Rhodites*** ?) ***tuberculosa*** Osten Sacken, 1861. Stettin. Ent. Ztg. 22: 415. ♀ ♂ 0.

Non-valid Published Names in Cynipoidea

Obvious typographical errors are not included.

acinosus (Andricus). Bassett 1881. *In* Mayr, Genera Gallenbew. Cynip., p. 28. *Nom. nud.*

annae (Hexaplasta). Ashmead 1897. *In* Slosson, Ent. News 8: 237. MS.

aspera (Cynips?). Stebbins, 1910. Springfield Mus. Nat. Hist. Bul. 2: 26. 0 only. *Nom. nud.*

atomus (Neuroterus). Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 203.—Burks, 1943, Proc. U. S. Natl. Mus. 93: 593, MS.

atropus (Andricus). Ashmead, 1910. *In* Smith, N. J. State Mus. Rpt. for 1909: 602. Typo. err. for *stropus* Ashmead. q. v.

bakeri (Kleidotoma). Ashmead, 1900. *In* Howard, Wash. Acad. Sci. Proc. 2: 557. MS.

caducus (Cynips). Walsh, 1890. *In* Packard, U. S. Ent. Comn. Rpt. 5: 115. 0 only. *Nom. nud.*

cellula (Neuroterus). Gillette, 1902. *In* Mayr, Zool.-Bot. Gesell. Wien, Verh. 52: 289. MS. for *cellularius* Gillette.

concinnus (Andricus). Bassett, 1882. Amer. Nat. 16: 246. MS.

constricta (Cynips?). Stebbins, 1910. Springfield Mus. Nat. Hist. Bul. 2: 20. 0 only. *Nom. nud.*

cristata (Cynips?). Stebbins, 1910. Springfield Mus. Nat. Hist. Bul. 2: 24. 0 only. *Nom. nud.*

floccicola (Cynips q.). Riley, 1890. *In* Packard, U. S. Ent. Comn. Rpt. 5: 115. 0 only. *Nom. nud.*

flocculenta (Callirhytis?). Trotter, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 5: 115. 0 only. *Nom. nud.*

frondosa (Cynips q.). Bassett, 1864. Ent. Soc. Phila. Proc. 3: 688. 0 only. *Nom. nud.*

hyalinus (Solenaspis). Ashmead, 1895. Insect Life 7: 326. MS.

mellaria (Cynips quercus-). See *quercus-mellaria.*

minor (var. *Rhodites bicolor).* Trotter, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 5: 103. 0 only. *Nom. nud.*

monticola (Aegilips). Ashmead, 1902 and 1906. *In* Slosson, Ent. News 13: 320 and 17: 323. MS.

monticola (Periclistidea). Ashmead, 1902. Ent. News 13: 5. MS.

multiarticulata (Eumayria). Ashmead, 1887. Amer. Ent. Soc. Trans. 14: 133. 0 only.

obovata (Cynips?). Stebbins, 1910. Springfield Mus. Nat. Hist. Bul. 2: 24. 0 only. *Nom. nud.*

patelloides (Andricus?). Trotter, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 5: 106. 0 only. See *patelloides* Weld.

perpusillus (Neuroterus?). Trotter, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 5: 107. 0 only. *Nom. nud.*

pilulae (Cynips q.). Walsh, 1861. Ent. Soc. Phila. Proc. 1: 253. A *Cincticornia.*

pini (Figites). Harris, 1833. Geol. Mass. Rpt., p. 587. MS.

pomum (Cynips vitis-). See *vitis-pomum.*

potentillae (Diplolepis). Harris, 1833. Geol. Mass. Rpt., p. 587. MS.

pseudo-callidoma (Andricus). Trotter, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 5: 105. 0 only. *Nom. nud.*

quercus-mellaria (Cynips). Riley, 1880. Amer. Ent. 3: 289. 0 only.

sera (Cynips?). Stebbins, 1910. Springfield Mus. Nat. Hist. Bul. 2: 24. 0 only. *Nom. nud.*

silvestrii (Rhodites). Trotter, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 5: 103. 0 only. *Nom. nud.*

slossonae (Anacharis). Ashmead, 1906. *In* Slosson, Ent. News 17: 323. MS.

sphaericus (Rhodites). Stebbins, 1910. Springfield Mus. Nat. Hist. Bul. 2: 38, 106. 0 only. *Nom. nud.*

spinosellus (Rhodites). Cockerell, 1890. Entomologist 23: 75. 0 only. *Nom. nud.*

vaccinoides (Trigonaspis?). Trotter, 1910. Lab. Zool. Gen. e Agr. Portici Bol. 5: 107. 0 only. *Nom. nud.*

vesiculoides (Dryophanta). Riley, 1895. Science (n. s.) 1: 462. MS.

vitis-pomum (Cynips). Walsh and Riley, 1880. Amer. Ent. 3: 229. A *Schizomyia.*

Superfamily PROCTOTRUPOIDEA[19]

This is a large superfamily, the members of which exhibit striking differences in structure and in habits. It is, moreover, comparatively poorly known, with most of the North American species still undescribed. Except for the small families Evaniidae and Gasteruptiidae, which have been critically studied by Bradley and more recently by Townes, and for the scelionid subfamily Platygasterinae, which has been reviewed by Fouts, the Proctotrupoidea of North America have received little attention from systematists. We have as yet only suggestions or bits of actual evidence here and there concerning the habits of the forms comprising this superfamily. It offers attractive opportunities to students of Hymenoptera.

No comprehensive study of the North American species has been published since Ashmead's revision of 1893, although these species were included by Kieffer in his monograph of the world forms published in several volumes between 1914 and 1926. The majority of American species were known by Kieffer only from generally inadequate descriptions and his treatment is for that reason often faulty. Like most of the workers in this group during the past thirty years Kieffer used the name Serphoidea, based on *Serphus* Schrank, for the superfamily. *Serphus* Schrank, however, was set aside by the International Commission of Zoological Nomenclature in 1946 in Opinion No. 178 under suspension of the Rules, and *Proctotrupes* Latr. was established in its place and added to the Official List of Generic Names in Zoology. Thus it has unfortunately become necessary to return to the all but forgotten name Proctotrupoidea.

Revisions: Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 5–472.—Kieffer, 1914–1926. Das Tierreich, Lief. 42 (1914), pp. VI-XVII, 1–254; Lief. 44 (1916), pp. VI-XXX, 1–627; Lief. 48 (1926), pp. VII-XXXVI, 1–885.

Family EVANIIDAE[20]

The evaniids are parasitic in the egg capsules of Blattidae. The family is best represented in the tropics. Two introduced species (*Evania appendigaster* and *Prosevania punctata*) are common in the larger cities of the Atlantic States, where they parasitize *Periplaneta* and *Blatta*. Our common native species of *Hyptia* are presumed to be parasites of *Parcoblatta*.

Revisions: Bradley, 1908. Amer. Ent. Soc. Trans. 34: 128–162.—Townes, 1949. U. S. Natl. Mus. Proc. 99: 525–539.
Compilation of taxonomic literature (World): Kieffer, 1912. Das Tierreich v. 30, pp. 6–188.
Catalog (World): Hedicke, 1939. Hym. Cat. pars 9, 50 pp.
Biology: Kieffer, 1903. *In* Andre, Spec. Hym. Eur. Alg., v. 7 bis, pp. 363–365.
Morphology: Bradley, 1908. Amer. Ent. Soc. Trans. 34: 128–134.

Genus EVANIA Fabricius

Evania Fabricius, 1775. Systema Ent., p. 345.
Type: ***Sphex appendigaster*** Linnaeus. Desig. by Curtis, 1829.

[19] Prepared by C. F. W. Muesebeck and Luella M. Walkley, U. S. Bureau of Entomology and Plant Quarantine, except the sections on the families Evaniidae and Gasteruptiidae, which were prepared by Henry K. Townes, North Carolina State College.

[20] By Henry Townes, North Carolina State College, Raleigh, N. C.

appendigaster (Linnaeus). Around buildings in the Southeastern States and in cities as far north as New York; also Ariz. Tropicopolitan. Hosts: *Periplaneta* spp., *Blatta orientalis* L.

Ichneumon appendigaster Linnaeus, 1758. Syst. Nat., ed. 10, p. 566.

Evania unicolor Say, 1824. *In* Keating, Narr. Long's 2nd. Exped., v. 2, p. 320.

Taxonomy: Bradley, 1908. Amer. Ent. Soc. Trans. 34: 138.—Townes, 1949. U. S. Natl. Mus. Proc. 99: 527.

Genus PROSEVANIA Kieffer

Prosevania Kieffer, 1911. Soc. Ent. France Ann. 80: 157.
Type: ***Evania (Prosevania) afra*** Kieffer. Desig. by Viereck, 1914.

punctata (Brullé). N. Y. to Ohio, south to Ga.; Mediterranean Region. In cities.

Evania punctata Brullé, 1833 (1832). Exped. Sci. de Morée, v. 3, p. 378.

Evania urbana Bradley, 1908. Amer. Ent. Soc. Trans. 34: 140. ♂ ♀.

Biology: Fahringer, 1922. Ztschr. Angew. Ent. 8: 356.

Taxonomy: Bequaert, 1919. Brooklyn Ent. Soc. Bul. 14: 23.—Townes, 1949. U. S. Natl. Mus. Proc. 99: 528.

Genus EVANIELLA Bradley

Evaniella Bradley, 1905. Canad. Ent. 37: 64.
Type: (***Evania unicolor*** Say as misdetermined by Ashmead)= ***Evaniella semaeoda*** Bradley. Orig. desig.

Revisions: Bradley, 1908. Amer. Ent. Soc. Trans. 34: 140–147.—Townes, 1949. U. S. Natl. Mus. Proc. 99: 528–530.

californica (Ashmead). Calif. (Natoma).

Evania Californica Ashmead, 1901. Canad. Ent. 33: 304. ♂.

neomexicana (Ashmead). N. Mex. (Las Cruces).

Evania Neomexicana Ashmead, 1901. Canad Ent. 33: 304. ♂.

semaeoda Bradley. R. I. and Mich. to Fla., La., and Kans. U. Austr. and L. Austr. Zones. Midsummer.

Evaniella semaeoda Bradley, 1908. Amer. Ent. Soc. Trans. 34: 144. ♂ ♀.

Genus HYPTIA Illiger

Hyptia Illiger, 1807. Mag. Insektenk. 6: 192.
Type: ***Evania petiolata*** Fabricius. Monob.

Hyptiam Shuckard, 1841. Entomologist 1: 120. Emend.

Revisions: Bradley, 1908. Amer. Ent. Soc. Trans. 34: 147–162.—Townes, 1949. U. S. Natl. Mus. Proc. 99: 531–539.

femorata Townes. Tex. (Uvalde, Davis Mts., and Chisos Mts.).

Hyptia femorata Townes, 1949. U. S. Natl. Mus. Proc. 99: 537.

floridana Ashmead. N. C. to Fla. in L. Austr. Zone; Guatemala, Panama. L. Austr. and Tropical Zones.

Hyptia floridana Ashmead, 1901. Canad. Ent. 33: 303. ♂.

harpyoides Bradley. Ont., N. H., and Minn. to S. C., Miss., Tex., and Kans. U. Austr. and L. Austr. Zones. Midsummer.

Hyptia harpyoides Bradley, 1908. Amer. Ent. Soc. Trans. 34: 151. ♂ ♀.

Hyptia brevicalcar var. ***glabriceps*** Kieffer, 1910. Soc. Ent. France Ann. 79: 72. ♂.

oblonga Townes. Ga., Ala., Ariz.; Mexico, Costa Rica.

Hyptia oblonga Townes, 1949. U. S. Natl. Mus. Proc. 99: 538.

reticulata (Say). Pa. to Fla., La., and Mexico. U. Austr. to Tropical Zones. Midsummer.

Brachygaster reticulata Say, 1836. Boston Jour. Nat. Hist. 1: 223.

Hyptia nyctoides Bradley, 1908. Amer. Ent. Soc. Trans. 34: 159. ♂.

Hyptia prosetethetra Bradley, 1908. Amer. Ent. Soc. Trans. 34: 160. ♂.

thoracica (Blanchard). Conn. and Ont. to Wis., south to Fla. and Tex. U. Austr. to Tropical Zones. Midsummer. Host: *Parcoblatta pennsylvanica* (Deg.).

Evania thoracica Blanchard, 1840. Hist. Nat. Anim. Artic., Ins. v. 3, p. 299.

Hyptiam thoracicum Shuckard, 1841. Entomologist 1: 120. ♂. Preocc.
Evania dorsalis Westwood, 1851. Ent. Soc. London Trans. (2) 1: 214. N. name for *E. thoracica* Blanchard.
Hyptia brevicalcar Kieffer, 1904. Arkiv för Zool. 1: 541. ♂.
Hyptia mylacridomanes Bradley, 1908. Amer. Ent. Soc. Trans. 34: 153. ♀.
Hyptia hyptiogastris Bradley, 1908. Amer. Ent. Soc. Trans. 34: 160. ♂.
Hyptia texana Bradley, 1908. Amer. Ent. Soc. Trans. 34: 161. ♀.

Family GASTERUPTIIDAE[21]

Revisions: Bradley, 1908. Amer. Ent. Soc. Trans. 34: 107–128.—Townes, 1950. U. S. Natl. Mus. Proc. 100: 85–145.
Compilation of taxonomic literature (World): Kieffer, 1912. Das Tierreich, v. 30, p. 188–410.
Biology: Kieffer, 1903. *In* André, Spec. Hym. Eur. Alg., v. 7 bis, pp. 365–368.

Subfamily AULACINAE

The Aulacinae are parasitic on wood-boring insects: part of the genus *Aulacus* on *Xyphydria* (Xiphydriidae), and the rest of the subfamily on Coleoptera.

Catalogue (World): Hedicke, 1939. Hym. Cat., pars 10, 28 pp.

Genus AULACOSTETHUS Philippi

Aulacostethus Philippi, 1873. Stettin. Ent. Ztg. 34: 302.
Type: ***Aulacostethus rubriventer*** Philippi. Monob.
Pristaulacus Kieffer, 1900. Soc. Ent. France Ann. 68: 813.
Type: ***Pristaulacus chlapowskii*** Kieffer. Desig. by Bradley, 1908.
Deraiodontus Bradley, 1901. Ent. Student 2: 29.
Type: ***Aulacus montanus*** Cresson. Desig. by Bradley, 1901.
Oleisoprister Bradley, 1901. Amer. Ent. Soc. Trans. 27: 324.
Type: (***Aulacus firmus*** Cresson)=[***Aulacus***] ***resutorivorus*** (Westwood). Orig. desig.
Anaulacus Semenow, 1903. Rev. Russe d'Ent. 3: 173. Preocc.
Type: ***Aulacus sibiricola*** Semenow. Monob.
Semenowia Kieffer, 1903. *In* André, Spec. Hym. Eur. Alg., v. 7 bis, p. 382. Preocc. N. name for *Anaulacus* Semenow.
Odontaulacus Kieffer, 1903. *In* Andre, Spec. Hym. Eur. Alg., v. 7 bis, p. 382.
Type: ***Aulacus rufitarsis*** Cresson. Desig. by Bradley, 1908.
Interaulacus Bradley, 1908. Amer. Ent. Soc. Trans. 34: 123.
Type: ***Interaulacus kiefferi*** Bradley. Orig. desig.
Semenovius Bradley, 1908. Amer. Ent. Soc. Trans. 34: 123. N. name for *Anaulacus* Semenow.
Tropaulacus Bradley, 1908. Amer. Ent. Soc. Trans. 34: 125.
Type: ***Tropaulacus torridus*** Bradley. Monob.
Neaulacus Bradley, 1908. Amer. Ent. Soc. Trans. 34: 126.
Type: ***Aulacus occidentalis*** Cresson. Orig. desig.
?***Disaulacinus*** Kieffer, 1910. Soc. Ent. France Bul., p. 350.
Type: ***Disaulacinus flavimanus*** Kieffer. Included by Kieffer, 1911.
Tetraulacinus Kieffer, 1910. Soc. Ent. France Bul., p. 350.
Type: ***Pristaulacus rufobalteatus*** Cameron. Included by Kieffer, 1911.
Psilaulacus Kieffer, 1910. Soc. Ent. France Bul., p. 350.
Type: ***Psilaulacus annulatus*** Kieffer. Included by Kieffer, 1911.
?***Aulacites*** Cockerell, 1916. U. S. Natl. Mus. Proc. 51: 102.
Type: ***Aulacites secundus*** Cockerell. Orig. desig.
Revisions: Bradley, 1908. Amer. Ent. Soc. Trans. 34: 120–128.—Townes, 1950. U. S. Natl. Mus. Proc. 100: 88–113.

arizonicus Townes. Ariz. (Chiricahua Mts.).
Aulacostethus arizonicus Townes, 1950. U. S. Natl. Mus. Proc. 100: 98. ♀.

[21] By Henry Townes, North Carolina State College, Raleigh, N. C.

ater (Westwood). N. S. to Fla., west to Lake Superior and Colo. On dead pine trees.
Aulacus ater Westwood, 1841. Ann. Nat. Hist. 7: 538; 1843. Ent. Soc. London Trans. 3: 265. ♀.
Aulacus abbottii Westwood, 1841. Ann. Nat. Hist. 7: 538; 1843. Ent. Soc. London Trans. 3: 266. ♀.
Aulacus niger Shuckard, 1841. Entomologist 1:124.
Pristaulacus (*Pristaulacus*) *hopkinsii* (as *hopkinsi* in key) Bradley, 1908. Amer. Ent. Soc. Trans. 34: 127. ♀.
Pristaulacus aterrimus Kieffer, 1911. Soc. Ent. France Ann. 80: 230. N. name for *A. ater* Westwood.
Pristaulacus floridana Rohwer, 1913. U. S. Natl. Mus. Proc. 45: 534. ♀.

bilobatus (Provancher). N. S. to N. C., west to Wis. Host: *Melanophila fulvoguttata* (Harr.).
Aulacus bilobatus Provancher, 1878. Nat. Canad. 10: 237. ♂.

californicus Townes. Calif. (Copper and Patricks Cr.). Host: *Paratimia conicola* Fish.
Aulacostethus californicus Townes, 1950. U. S. Natl. Mus. Proc. 100: 101. ♂ ♀.

canadensis Townes. Man., Maine.
Aulacostethus canadensis Townes, 1950. U. S. Natl. Mus. Proc. 100: 102. ♂ ♀.

editus (Cresson). B. C. and northwestern U. S. Hosts: *Paratimia conicola* Fish.; *Chrysophana placida* (Lec.).
Aulacus editus Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. v. ♀.

fasciatus (Say). Pa., D. C., Ohio, Mich., Ark., Mo.
Aulacus fasciatus Say, 1829. Contrib. Maclur. Lyc. Phila. 1: 67. ♀.

flavicrurus (Bradley). Vt. to S. C. and Ill. Transit. Zone.
Deraiodontus flavicrurus Bradley, 1901. Amer. Ent. Soc. Trans. 27: 322. ♀.
Pristaulacus flavipes Kieffer, 1904. Arkiv för Zool. 1: 559. ♂.

foxleei Townes. B. C., Wash., Oreg., Calif., Idaho. Host: *Leptura obliterata* Hald.
Aulacostethus foxleei Townes, 1950. U. S. Natl. Mus. Proc. 100: 107. ♂ ♀.

melleus (Cresson). Oreg., Calif., Nev. Canad. Zone.
Aulacus melleus Cresson, 1879. Amer. Ent. Soc. Trans. 7: 255. ♀.
Aulacus consors Cresson, 1879. Amer. Ent. Soc. Trans. 7: 255. ♂.
Pristaulacus ferrugineus Kieffer, 1904. Soc. Hist. Nat. Metz Bul. (2) 11: 29. ♀.

minor (Cresson). B. C. and northwestern U. S. Hosts: *Melanophila drummondi* (Kby.); *M. intrusa* Horn; *Semanotus ligneus* (F.). Adults on freshly felled conifers.
Aulacus minor Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. vi. ♀.

montanus (Cresson). B. C., Oreg., Nev., Calif. south to Los Angeles Co. Transit. & Canad. Zones. Hosts: *Chrysobothris femorata* (Oliv.); *Xylotrecus nauticus* (Mann.).
Aulacus montanus Cresson, 1879. Amer. Ent. Soc. Trans. 7: 256. ♀.
Deraiodontus fuscalatus Bradley, 1901. Amer. Ent. Soc. Trans. 27: 321. ♀.
Pristaulacus (*Oleisopristerr*) *dentatus* Bradley, 1908. Amer. Ent. Soc. Trans. 34: 126. ♂.

occidentalis lavatus Townes. B. C., Wash., Oreg., Calif. Canad. Zone.
Aulacostethus occidentalis lavatus Townes, 1950. U. S. Natl. Mus. Proc. 100: 106. ♂ ♀.

occidentalis occidentalis (Cresson). Mountains of Idaho, Wyo., Colo., Utah, and N. Mex.
Aulacus occidentalis Cresson, 1879. Amer. Ent. Soc. Trans. 7: 255. ♀.

oregonus Townes. Oreg.
Aulacostethus oregonus Townes, 1950. U. S. Natl. Mus. Proc. 100: 96. ♂ ♀.

pacificus (Cresson). B. C., Wash., Oreg., Idaho, Colo.
Aulacus pacificus Cresson, 1879. Amer. Ent. Soc. Trans. 7: 256. ♀.

resutorivorus (Westwood). Transcont. in Transit. and Canad. Zones. On dead *Pinus*.
Aulacus Resutorivorus Westwood, 1851. Ent. Soc. London Trans. (2) 1: 224. ♀.
Aulacus firmus Cresson, 1879. Amer. Ent. Soc. Trans. 7: 256. ♀.
Aulacus subfirmus Bradley, 1901. Ent. Student 2: 31; Viereck, 1901. Amer. Ent. Soc. Trans. 27: 325. ♀.

rufitarsis (Cresson). Transcont. in Transit. and Canad. Zones. Hosts: *Melanophila drummondi* (Kby.); *M. fulvoguttata* (Harr.); *Saperda calcarata* Say. Adults on freshly felled conifers.
Aulacus rufitarsis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 134. ♀.
Aulacus abdominalis Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. v. ♀.
Aulacus erythrogaster Kieffer, 1904. Arkiv för Zool. 1: 561. ♂ ♀.
Odontaulacus spinosipes Kieffer, 1910. Soc. Ent. France Ann. 79: 79. ♀.

stigmaterus (Cresson). Atlantic to about 100° W., mostly in Transit. Zone.
Aulacus stigmaterus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 134. ♀.
Pristaulacus punctaticeps Kieffer, 1910. Soc. Ent. France Ann. 79: 78. ♀.

strangaliae (Rohwer). N. S. (P. E. I.) to Va., west to Man. Transit. and Canad. Zones. Hosts: *Anoplodera rubrica* (Say); *A. mutabilis* (Newm.); *A. proxima* (Say).
Pristaulacus strangaliae Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 157. ♀.
Pristaulacus (Oleisoprister) taughanic Bradley, 1926. Brooklyn Ent. Soc. Bul. 21: 173. ♀.
Pristaulacus (Oleisoprister) glabrescens Bradley, 1926. Brooklyn Ent. Soc. Bul. 21: 174. ♀.

torridus (Bradley). Tex. (Brownsville).
Tropaulacus torridus Bradley, 1908. Amer. Ent. Soc. Trans. 34: 125. ♀.

violaceus (Bradley). D. C., Va.
Deraiodontus violaceus Bradley, 1905. Ztschr. System. Hym. Dipt. 5: 26. ♂ ♀.

Genus AULACUS Jurine

Aulacus Jurine, 1807. Nouv. Method. Class. Hym. Dipt., p. 89.
Type: *Aulacus striatus* Jurine. Monob.
Aulacinus Westwood, 1869. Ent. Soc. London Trans., p. 331.
Type: *Aulacus (Aulacinus) moerens* Westwood. Monob.
Pammegischia Provancher, 1882. Nat. Canad. 13: 302.
Type: *Pammegischia burquei* Provancher. Monob.
?*Parafoenus* Kieffer, 1910. Soc. Ent. France Bul., p. 350.
Type: *Parafoenus formosus* Kieffer. Included by Kieffer, 1911.
Neuraulacinus Kieffer, 1910. Soc. Ent. France Bul., p. 350.
Type: *Neuraulacinus braconiformis* Kieffer. Included by Kieffer, 1911.
Micraulacinus Kieffer, 1910. Soc. Ent. France Bul., p. 350.
Type: *Micraulacinus elegans* Kieffer. Included by Kieffer, 1911.
Pycnaulacus Cushman, 1919. U. S. Natl. Mus. Proc. 76 (25): 17.
Type: *Pycnaulacus brevicaudus* Cushman. Orig. desig.
Revisions: Bradley, 1908. Amer. Ent. Soc. Trans. 34: 121–122.—Townes, 1950. U. S. Natl. Mus. Proc. 100: 113–120.

brevicaudus (Cushman). Ashland, Oreg. to Palo Alto and Sequoia Natl. Pk., Calif.
Pycnaulacus brevicaudus Cushman, 1929. U. S. Natl. Mus. Proc. 76 (25): 18. ♀.

burquei (Provancher). Que. to Pa., west to Mich. Host: *Xiphydria maculata* Say in *Acer*.
Pammegischia Burquei Provancher, 1882. Nat. Canad. 13: 303. ♀.

digitalis Townes. Transit. Zone of northeast. U. S. Host: *Xiphydria* in *Acer* and *Malus*.
Aulacus digitalis Townes, 1950. U. S. Natl. Mus. Proc. 100: 118. ♂ ♀.

dispilus Townes. Tex. (Brownsville).
Aulacus dispilus Townes, 1950. U. S. Natl. Mus. Proc. 100: 114. ♀.

lovei (Ashmead). Que. to Md. in Transit. Zone. Host: *Xiphydria*, usually in *Tilia* and *Carpinus*.

Pammegischia Lovei Ashmead, 1901. Canad. Ent. 33: 301. ♀.
Pammegischia ouelletii Bradley, 1901. Amer. Ent. Soc. Trans. 27: 329. ♂.

pallipes Cresson. Que., Mass., R. I., N. Y., Pa., Minn., Mo., B. C., Wash. Host: *Xiphydria* in *Betula* spp.
Aulacus pallipes Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xvii. ♂.
Pammegischia xiphydriae Ashmead, 1901. Canad. Ent. 33: 300. ♀.
Pammegischia weedi Ashmead, 1901. Canad. Ent. 33: 301. ♂.
Pammegischia ashmeadi Bradley, 1908. Amer. Ent. Soc. Trans. 34: 122. ♀.
Pammegischia minnesotae Bradley, 1908. Amer. Ent. Soc. Trans. 34: 122. ♂.

Subfamily GASTERUPTIINAE

This subfamily is parasitic in the nests of bees and wasps nesting in twigs or wood. Adults are commonly collected on flowers or flying around posts, stumps, logs, and other nesting sites of their hosts.

Catalog (world): Hedicke, 1939. Hym. Cat., pars 11, 54 pp.
Biology: Höppner, 1904. Allg. Ztschr. Ent. 9: 97–103.

Genus GASTERUPTION Latreille

Gasteruption Latreille, 1796. Précis Caract. Gen. Ins., p. 113.
Type: ***Ichneumon assectator*** Linnaeus. Desig. by Kieffer, 1903.
Foenus Fabricius, 1798. Sup. Ent. System., pp. 210, 240.
Type: ***Ichneumon assectator*** Linnaeus. Desig. by Curtis, 1832.
Gastryptium Agassiz, 1846. Nomencl. Zool., Index Univ., p. 160. Emend.
Gasteryption Semenow, 1892. Acad. Sci. St.-Petersburg Bul. (n. s.) 3: 12. Emend.
Gasteruptium Schulz, 1906. Spolia Hym., p. 133. Emend.
Revision: Townes, 1950. U. S. Natl. Mus. Proc. 100: 121–129.

amputatum Townes. Ariz., Colo.
Gasteruption amputatum Townes, 1950. U. S. Natl. Mus. Proc. 100: 128. ♂ ♀.

assectator assectator (Linnaeus). Pacific to Cont. Divide in Transit. and Canad. Zones, east to the Atlantic in Canad. Zone; Eurasia. In the Pacific States replaced by the subspecies *nevadense*.
Ichneumon assectator Linnaeus, 1758. Syst. Nat., ed. 10, p. 566. ♀.
Foenus montanus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 132. ♀.
Foenus incertus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 133. ♂ ♀.
Biology: Höppner, 1904. Allg. Ztschr. Ent. 9: 97–103.

assectator arca (Couper). Atlantic to Cont. Divide in Transit. and U. Austr. Zones.
Feonus (!) ***Arca*** Couper, 1870. Canad. Ent. 2: 110. ♀.
Gasteruption micrura Kieffer, 1904. Arkiv för Zool. 1: 556. ♀.
Gasteruption micrura var. ***nigripectus*** Kieffer, 1904. Arkiv för Zool. 1: 556. ♀.
Gasteruption Bakeri Kieffer, 1910. Soc. Ent. France Ann. 79: 75. ♀.
Trichofoenus canadensis Kieffer, 1910. Soc. Ent. France Ann. 79: 77. ♀.
Gasteruption Bakeri var. ***aberrans*** Strand, 1912. Arch. f. Naturgesch. 76A (6): 27. ♂ ♀.

assectator nevadense Kieffer, n. status. Wash., Oreg., Calif., Nev. Transit. and Canad. Zones.
Gasteruption Nevadense Kieffer, 1904. Invertebrata Pacifica 1: 41. ♂ ♀.

assectator utahense Townes. Utah.
Gasteruption assectator utahensis Townes, 1950. U. S. Natl. Mus. Proc. 100: 126. ♂ ♀.

kirbii kirbii (Westwood). Canada and eastern U. S. in Canad. Zone.
Foenus Kirbii Westwood, 1851. Ent. Soc. London Trans. (2) 1: 219. ♀.
Gasteruption kirbyi Hedicke, 1939. Hym. Cat., pars 11, p. 32. Emend.

kirbii russeum Townes. U. S. from Pacific to Cont. Divide in Canad. Zone, intergrading with typical *kirbii* in B. C.
Gasteruption kirbii russeus Townes, 1950. U. S. Natl. Mus. Proc. 100: 123. ♂ ♀.

Genus RHYDINOFOENUS Bradley

Rhydinofoenus Bradley, 1909. Deut. Ent. Ztschr., p. 39.
Type: ***Rhydinofoenus kaweahensis*** Bradley. Orig. desig.
Revision: Townes, 1950. U. S. Natl. Mus. Proc. 100: 129–145.

barnstoni barnstoni (Westwood). Atlantic to Rocky Mts. Canad. and Transit. Zones.
Foenus Barnstoni Westwood, 1851. Ent. Soc. London Trans. (2) 1: 220. ♀.
Gasteruption pensile Schletterer, 1890. K. K. Naturhist. Hofmus. Ann. 4: 483. ♀.
Foenus cressoni Bradley, 1908. Amer. Ent. Soc. Trans. 34: 113. ♂ ♀.
Gasteruption Klagesi Kieffer, 1910. Soc. Ent. France Ann. 79: 75. ♂.

barnstoni perplexus (Cresson). Pacific to a little east of Rocky Mts.
Foenus perplexus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 131. ♀.
Foenus fragilis Bradley, 1908. Amer. Ent. Soc. Trans. 34: 111. ♀.
Gasteruption alticola Kieffer, 1910. Soc. Ent. France Ann. 79: 76. ♀.

enodis Townes. Ariz. (Phoenix and Yuma), Calif. (29 Palms).
Rhydinofoenus enodis Townes, 1950. U. S. Natl. Mus. Proc. 100: 140. ♀.

floridanus bradleyi Townes. Atlantic to 100° W. in Transit. and U. Austr. Zones.
Rhydinofoenus floridanus bradleyi Townes, 1950. U. S. Natl. Mus. Proc. 100: 139. ♂ ♀.

floridanus floridanus (Bradley). Ga., Fla. L. Austr. Zone.
Foenus floridanus Bradley, 1908. Amer. Ent. Soc. Trans. 34: 112. ♂ ♀.

kaweahensis Bradley. La., Tex., southern Calif., Mexico.
Rhydinofoenus kaweahensis Bradley, 1909. Deut. Ent. Ztschr., p. 39. ♀.

nevadae (Bradley). Nev., Calif., N. Mex.
Foenus nevadae Bradley, 1908. Amer. Ent. Soc. Trans. 34: 114. ♀.

occidentalis (Cresson). Pacific to Mont., Utah, and Ariz., mostly in Transit. Zone.
Foenus occidentalis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 131. ♀.
Gasteruption egregium Schletterer, 1890. K. K. Naturhist. Hofmus. Ann. 4: 486. ♀.

pattersonae (Melander and Brues). Wash., Oreg., Calif., Idaho, Utah. Arid regions.
Gasteruption pattersonae Melander and Brues, 1902. Biol. Bul. 3: 35. ♀.
Gasteruption pyrrhosternum Kieffer, 1904. Invertebrata Pacifica 1: 41. ♀.
Gasteruption rubrofasciatum Kieffer, 1904. Invertebrata Pacifica 1: 42. ♂.

septentrionalis (Schletterer). B. C., Ariz.
Gasteruption septentrionale Schletterer, 1890. K. K. Naturhist. Hofmus. Ann. 4: 480. ♀.

striatus Townes. B. C., Wash., Oreg., Calif., Idaho, Nev.
Rhydinofoenus striatus Townes, 1950. U. S. Natl. Mus. Proc. 100: 132. ♂ ♀.

tarsatorius solaris Townes. Kans., Tex., Ariz.
Rhydinofoenus tarsatorius solaris Townes, 1950. U. S. Natl. Mus. Proc. 100: 137. ♂ ♀.

tarsatorius tarsatorius (Say). Atlantic to 100° W., mostly in Transit. Zone.
Foenus tarsatorius Say, 1824. *In* Keating, Narr. Long's 2nd Exped. v. 2, p. 321. ♀.
Gasteruption intricatum Kieffer, 1904. Arkiv för Zool. 1: 556. ♀.

turbinatus Townes. Mountains of south. Ariz.
Rhydinofoenus turbinatus Townes, 1950. U. S. Natl. Mus. Proc. 100: 138. ♂ ♀.

visaliae (Bradley). South. Calif., Mexico.
Foenus visaliae Bradley, 1909. Deut. Ent. Ztschr., p. 40. ♀.

Family PELECINIDAE

Taxonomy: Schulz, 1903. Bayer. Akad. der Wiss., Math.-Phys. Kl. Sitzber., p. 435.

Genus PELECINUS Latreille

Pelecinus Latreille, 1800. Bul. Sci. Soc. Philom. Paris 2 (44): 155.
Type: (*Ichneumon polycerator* Fabricius) = *Ichneumon polyturator* Drury. Monob.
Epiceuastes Gistel, 1848. Naturgesch. Thierr. f. höh. Schul., p. X, col. 1. Unnecessarily proposed for *Pelecinus* Latreille.
Biology: Clausen, 1940. Entomophagous Insects, pp. 270–271.—Hammond, 1944. Canad. Ent. 74: 130.
Taxonomy: Brues, 1928. Psyche 35: 205–209.

This genus, which comprises the family Pelecinidae, is a peculiar genus, conspicuously distinct from all other families of the Proctotrupoidea although apparently belonging in this group, and with the two sexes strikingly dimorphic. It appears to be represented in North America by a single extremely variable species, but no really critical study of the large accumulations of specimens that are to be found in the principal insect collections has ever been attempted. Such a study, supplemented by more information on biology, may prove this segregate to be a complex of several distinct species. The present meager records pertaining to biology and host relations indicate that *Pelecinus* parasitizes the larvae of soil-inhabiting Scarabaeidae.

polyturator (Drury). Mass. to Minn., south to Argentina.
Ichneumon polyturator Drury, 1773. Illus. Nat. Hist., v. 2, p. 77, Index p. [92]. ♀.
Ichneumon polycerator Fabricius, 1777. Gen. Ins., p. 245.
Pelecinus brunneipes Patton, 1894. Amer. Nat. 28: 896.

Family VANHORNIIDAE

Only a single species of this family is known and specimens are very rare in collections. The group is apparently closely related to the Heloridae and Roproniidae.

Genus VANHORNIA Crawford

Vanhornia Crawford, 1909. Ent. Soc. Wash. Proc. 11 (2): 63.
Type: *Vanhornia eucnemidarum* Crawford. Monob.

eucnemidarum Crawford. Md., Va., Mass., Pa., N. Y. Host: Eucnemidae larvae.
Vanhornia eucnemidarum Crawford, 1909. Ent. Soc. Wash. Proc. 11: 63. ♂ ♀.

Family ROPRONIIDAE

This is another small, little-known group that is poorly or not at all represented in most collections. Its host associations are not definitely known.
Revision: Townes, 1948. U. S. Natl. Mus. Proc. 98: 85–89.

Genus ROPRONIA Provancher

Ropronia Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., p. 152, 154.
Type: *Ropronia pediculata* Provancher. Monob.
Roptronia (!) Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 132.

californica Ashmead. Calif., Oreg.
Roptronia (!) *californica* Ashmead, 1898. Ent. Soc. Wash. 4: 133. ♂.

garmani Ashmead. N. H. to Ga., west to Iowa and Ky.
Roptronia (!) *garmani* Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 132. ♂.

pediculata Provancher. Ont., N. Y.
Ropronia pediculata Provancher, 1866. Addit. Corr. Faune Ent. Canada Hym., p. 154. ♀.
Ropronia ashmeadii Bradley, 1905. Ent. News 16: 17. ♀.

Family HELORIDAE

Members of this small and rather rare group are parasites of Chrysopidae.

Genus HELORUS Latreille

Helorus Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 309.
Type: ***Helorus ater*** Latreille. Monob.
Copelus Provancher, 1881. Nat. Canad. 12: 206.
Type: ***Copelus paradoxus*** Provancher. Monob.

paradoxus (Provancher). Que. to Ga., west to Wis. and La., also B. C. to Calif. east to Mont. and Colo. Hosts: *Chrysopa majuscula* Banks, *Chrysopa* spp.
Copelus paradoxus Provancher, 1881. Nat. Canad. 12: 207. ♀.
Biology: Clausen, 1940. Entomophagous Insects, pp. 266–270.—Clancy, 1946. Calif. Univ., Pubs., Ent. 7: 407–418.

Family PROCTOTRUPIDAE

Members of this family are commonly collected but almost nothing is known concerning their habits or host relations.

Revision: Kieffer, 1914. Das Tierreich, Lief. 42, pp. VI–XVII, 1–57.
Biology: Clausen, 1944. Entomophagous Insects, pp. 263–266.

Genus PROCTOTRUPES Latreille

Serphus Schrank, 1780. Schrift. Berlin. Gesell. Naturf. Freunde 1: 307. Suppressed by Internatl. Comn. Zool. Nomencl. Op. 178, 1946.
Proctotrupes Latreille, 1796. Précis. Caract. Gen. Ins., p. 108.
Type: ***Proctotrupes brevipennis*** Latreille. Desig. by Internatl. Comn. Zool. Nomencl. Op. 178, 1946.
Erodorus Walckenaer, 1802. Faune Parisienne, Ins., v. 2, p. 47.
Type: ***Erodorus bimaculatus*** Walckenaer. Monob.
Proctrupes Rafinesque, 1815. Analyse, p. 125. Emend.
Proctotrypes Agassiz, 1846. Nomencl. Zool., Index Univ., p. 309. Emend.
Proctotropis Gistel, 1848. Naturgesch. Thierr. f. höh. Schul., p. 143. Emend.

caudatus Say. "Northwest Terr.," B. C., Man., Kans., Iowa, Mo., Ind., Tenn., Ohio.
Proctotrupes caudatus Say, 1824. *In* Keating, Narr. Long's 2nd. Exped., v. 2, p. 329. ♀.

debilis (Brues). Wash. (Wawai).
Serphus debilis Brues, 1919. N. Y. Ent. Soc. Jour. 27: 3, 5. ♂.

florissantensis Rohwer. Idaho, Colo., Iowa.
Proctotrypes florissantensis Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 134. ♀ ♂.

linellii Ashmead. N. Y.
Proctotrypes Linellii Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 337. ♂.

longiusculus Brues. Pa., N. J.
Proctotrypes longiusculus Brues, 1909 (1908). Wis. Nat. Hist. Soc. Bul. 6: 155. ♂.

melliventris Ashmead. Fla. (Jacksonville).
Proctotrupes melliventris Ashmead, 1887. Ent. Amer. 3: 99. ♂.

pallidus (Say). N. Y. to Ga., west to S. Dak., Colo. and Okla.; Ont.
Codrus pallidus Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 80.
Proctotrypes coloradicus Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 15: 204. ♀.

rufigaster Provancher. Ont., N. Y., Man.
Proctotrupes rufigaster Provancher, 1881. Nat. Canad. 12: 263. ♀ ♂.

sequoiarum (Brues). Calif. (Muir Woods).
Serphus sequoiarum Brues, 1919. N. Y. Ent. Soc. Jour. 27: 3, 4. ♂.

terminalis Ashmead. D. C., Ohio, Mich., Iowa, Kans., S. Dak., Wash., Calif.
Proctotrypes terminalis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 337. ♂.

zabriskiei (Brues). N. Y. (Rochester).
Serphus zabriskiei Brues, 1919. N. Y. Ent. Soc. Jour. 27: 2, 3. ♀.

Genus DISOGMUS Foerster

Disogmus Foerster, 1856. Hym. Stud., v. 2, p. 99.
Type: *Proctotrupes areolator* Haliday. Monob.

canadensis Harrington. Ont. (Ottawa).
Disogmus canadensis Harrington, 1889. Roy. Soc. Canada Trans. (ser. 2) 5 (4): 193. ♀.

diversicornis Kieffer. Calif. (San Mateo).
Disogmus diversicornis Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 271. ♂.

glabratus Kieffer. Calif. (San Mateo).
Disogmus glabratus Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 271, 273. ♂.

pubescens Kieffer. Nev., Ill. Host: *Curtonotus carinatus* (Lec.).
Disogmus pubescens Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 271, 272. ♂ ♀.

torvus Whittaker. B. C. (Chilliwack).
Disogmus torvus Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 68. ♀ ♂.

Genus PHAENOSERPHUS Kieffer

Phaenoserphus Kieffer, 1908. *In* André, Spec. Hym. Eur. Alg. v. 10, p. 298.
Type: *Proctotrupes curtipennis* Haliday. Present desig.
Carabiphagus Morley, 1929. Suffolk Nat. Soc. Trans. 1: 40.
Type: *Proctotrupes laevifrons* Foerster. Monob.
Biology: Eastham, 1929. Parasitology 21: 1–3.—Raynaud, 1935. Misc. Ent. 36: 97–100.

cockerelli (Brues), n. comb. Colo. (Eldora).
Serphus cockerelli Brues, 1919. N. Y. Ent. Soc. Jour. 27: 3, 4. ♂.

longipes Brues. Wash. (Almota).
Phaenoserphus longipes Brues, 1919. N. Y. Ent. Soc. Jour. 27: 9. ♂.

nigripes (Ashmead). Alaska, Oreg.
Proctotrypes nigripes Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 136. ♂.

nevadensis (Kieffer). Calif., Nev.
Proctotrypes nevadensis Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 275. ♂.

obliquus (Ashmead). Ont., Md., Tex.
Proctotrypes obliquus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 334, 338. ♂.

obscuripes (Brues). Wash. (Orcas Isl.).
Proctotrypes obscuripes Brues, 1910 (1909). Wis. Nat. Hist. Soc. Bul. 7: 112, 114. ♂.

placidus (Brues). Wash. (Orcas Isl.).
Proctotrypes placidus Brues, 1910 (1909). Wis. Nat. Hist. Soc. Bul. 7: 112, 113. ♂.

serricornis (Brues). Wash.
Proctotrypes serricornis Brues, 1910 (1909). Wis. Nat. Hist. Soc. Bul. 7: 112, 115. ♂.

simplicior (Brues). Wash.
Proctotrypes simplicior Brues, 1910 (1909). Wis. Nat. Hist. Soc. Bul. 7: 112, 116. ♂.

Genus CRYPTOSERPHUS Kieffer

Cryptoserphus Kieffer, 1907. *In* André, Spec. Hym. Eur. Alg., v. 10, pp. 288, 313.
Type: *Cryptoserphus longicalcar* Kieffer. Desig. by Kieffer, 1914.

abruptus (Say). Que., N. Y., Va., Fla., Ont., Mich., Ind., Tenn.
Proctotrupes abruptus Say, 1836. Boston Jour. Nat. Hist. 1: 378. ♀.

belfragei (Ashmead). Tex.
Proctotrypes Belfragei Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 335, 340. ♀.

bruesi Muesebeck and Walkley, n. name. Conn. (Morris Cove).
Disogmus obsoletus Brues, 1905. Wis. Nat. Hist. Soc. Bul. 3: 186. ♀. Preocc. by Say, 1836.

clypeatus (Ashmead). N. Y. (Ithaca).
Proctotrypes clypeatus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 334, 339. ♀.

flavipes (Provancher). Que., Ont., Md.
Proctotrupes pallipes Provancher, 1881. Nat. Canad. 12: 263. Preocc.
Proctotrupes flavipes Provancher, 1881. Nat. Canad. 12: 264. ♀.
Megaspilus lucens Provancher, 1883. Nat. Canad. 14: 33. ♀.

melanderi Brues. Wash. (Pullman).
Cryotoserphus melanderi Brues, 1919. N. Y. Ent. Soc. Jour. 27: 8. ♂.

obsoletus (Say). Ont., D. C., Va., Ind. Host: *Stelidota strigosa* (Gyll.).
Proctotrupes obsoletus Say, 1836. Boston Jour. Nat. Hist. 1: 377. ♀.

occidentalis Brues. Wash., Idaho.
Cryptoserphus occidentalis Brues, 1919. N. Y. Ent. Soc. Jour. 27: 7. ♀.

Genus CODRUS Panzer

Codrus Panzer, 1801. Faunae Ins. German., heft 85, no. 9.
Type: *Codrus niger* Panzer, 1801. Desig. by Morice and Durrant, 1915.
Exallonyx Kieffer, 1904. Soc. Hist. Nat. Metz Bul. 23: 34. N. syn.
Type: *Exallonyx formicarius* Kieffer. Orig. desig.
Biology: Williams, 1932. Hawaii. Ent. Soc. Proc. 8: 205–207.

?angusticeps (Brues), n. comb. Wash. (Orcas Isl.).
Proctotrypes angusticeps Brues, 1910 (1909). Wis. Nat. Hist. Soc. Bul. 7: 112. ♀.

ashmeadii (Brues), n. comb. Maine.
Exallonyx ashmeadii Brues, 1919. N. Y. Ent. Soc. Jour. 27: 10, 13. ♂.

californicus (Holmgren), n. comb. Calif.
Proctotrupes californicus Holmgren, 1868. Eug. Resa I, Zool. 1, Ins., p. 434. ♂♀.

canadensis (Ashmead), n. comb. Que., Ont., N. Y.
Proctotrypes canadensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 335, 342. ♀.

carinatus (Brues), n. comb. Wash. (Oroville).
Exallonyx carinatus Brues, 1919. N. Y. Ent. Soc. Jour. 27: 11, 15. ♂.

carolinensis (Ashmead), n. comb. Mass., Pa., Va., N. C., Mich., Ind.
Proctotrypes carolinensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 335, 341. ♂.

crenaticornis (Kieffer), n. comb. Calif. (Santa Clara).
Exallonyx crenaticornis Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 273, 274. ♂.

dentaticornis (Kieffer), n. comb. Nev. (Ormsby).
Exallonyx dentaticornis Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 273, 275. ♂.

fallacicornis (Kieffer), n. comb. Calif. (Santa Clara).
Exallonix (!) *fallacicornis* Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 274. ♂.

femoratus (Ashmead), n. comb. Wash., Wyo.
Proctotrypes femoratus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 335, 344. ♀.

fuscicornis (Brues). n. comb. Mass. (Wood's Hole).
Exallonyx fuscicornis Brues, 1919. N. Y. Ent. Soc. Jour. 27: 10, 12. ♂.

grandis (Brues), n. comb. N. J. (Ramsey).
Exallonyx grandis Brues, 1919. N. Y. Ent. Soc. Jour. 27: 11, 17. ♀.

longiceps (Ashmead), n. comb. Ont., Va., Ohio. Host: *Staphylinus* sp.
Proctotrypes longiceps Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 335, 342. ♀.

medius (Ashmead), n. comb. Ont. (Ottawa).
Proctotrypes medius Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 335, 343. ♀.

pallidicornis (Brues), n. comb. Conn., Wis.
Exallonyx pallidicornis Brues, 1919. N. Y. Ent. Soc. Jour. 27: 11, 14. ♂.

parvulus (Brues), n. comb. Wash., Calif.
Exallonyx parvulus Brues, 1919. N. Y. Ent. Soc. Jour. 27: 11, 16. ♂.

pleuralis (Brues), n. comb. Wash. (Monroe).
Exallonyx pleuralis Brues, 1919. N. Y. Ent. Soc. Jour. 27: 10, 14. ♂.

quadriceps (Ashmead), n. comb. Ont., Que., N. J.
Proctotrypes quadriceps Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 335, 343. ♀.

similis (Brues), n. comb. Wash., Calif.
Exallonyx similis Brues, 1919. N. Y. Ent. Soc. Jour. 27: 10, 11. ♀.

simulans (Ashmead), n. comb. Md., Va., W. Va., Ill.
Proctotrypes simulans Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 335, 342. ♀.

texanus (Ashmead), n. comb. Tex.
Proctotrypes texanus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 335, 341. ♀.

Family CERAPHRONIDAE

The species of this family are very numerous, but the majority of the North American forms are still undescribed, and the host relations of few species are known. Wingless forms are commonly collected by sifting soil litter.

Biology: Clausen, 1940. Entomophagous Insects, pp. 257–261.
Revision: Kieffer, 1914. Das Tierreich, Lief. 42, pp. VI–XVII; 1–254.

Genus CERAPHRON Jurine

Ceraphron Jurine, 1807. Nouv. Méth. Class. Hym., p. 303.
Type: ***Ceraphron sulcatus*** Jurine, 1807. Desig. by Internatl. Comn. Zool. Nomencl. Op. 174, 1946.
Calliceras Nees, 1834. Hym. Ichn. Aff. Monog., v. 2, p. 278.
Type: ***Calliceras sulcata*** Nees, 1834. Desig. by Mani, 1941.
Hadroceras Foerster, 1840.[22] Beitr. Monog. Pteromalidae 1. No page no. Unnecessarily proposed as a n. name for *Calliceras*.
Type: ***Calliceras sulcata*** Nees, 1834. Autob.
Cerataphron Schulz, 1906. Spolia Hym., p. 152. Emend.

amesicola (Ogloblin), n. comb. Iowa (Ames).
Calliceras amesicola Ogloblin, 1944. Ent. Soc. Wash. Proc. 46: 155. ♀.

amplus Ashmead. Pa., D. C. Host: *Megaselia* sp.
Ceraphron amplus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 124, 129. ♀.

auripes Ashmead. Ont. (Ottawa).
Ceraphron auripes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 124, 125. ♀.

borealis (Whittaker), n. comb. B. C. (Hollyburn).
Calliceras boreale Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 71. ♀.

brevicornis Brues. Wis. (Milwaukee).
Ceraphron brevicornis Brues, 1906. Wis. Nat. Hist. Soc. Bul. 4: 145, 146. ♂.

[22]See Griffin, 1931. Ann. Mag. Nat. Hist. 10 (7): 498.

californicus Ashmead. Calif. (Folsom).
Ceraphron californicus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 124, 127. ♀.

carinatus Ashmead. Md., D. C., Va.
Ceraphron carinatus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 125, 131. ♂ ♀.

carlylei Girault. Ill., Iowa, La.
Ceraphron carlylei Girault, 1920. U. S. Natl. Mus. Proc. 58: 179. ♀.

concinnus (Whittaker), n. comb. B. C. (Hollyburn).
Calliceras concinna Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 70. ♂.

crassicornis Harrington. Ont. (Ottawa).
Ceraphron crassicornis Harrington, 1899. Canad. Ent. 31: 77. ♀.

croceipes Brues. Tex. Host: In nest of *Eciton coecum* (Latr.).
Ceraphron croceipes Brues, 1902. Amer. Nat. 36: 369. ♀.

fasciatus (Fouts), n. comb. Md.
Calliceras fasciata Fouts, 1924. Ent. Soc. Wash. Proc. 26: 162. ♀.

flaviscapus Ashmead. D. C., Va.
Ceraphron flaviscapus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 124, 130. ♀.

fusciceps Ashmead. Md., D. C.
Ceraphron fusciceps Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 124, 125. ♀.
Ceraphron secundus Dalla Torre, 1898. Cat. Hym., v. 5, p. 527. Unnecessarily proposed as n. name.

glabricornis Kieffer. Nev. (Ormsby).
Ceraphron glabricornis Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 260. ♂.

longicornis Ashmead. Fla. (Ft. George Isl.).
Ceraphron longicornis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 125, 132. ♂.

melanocephalus (Ashmead). Fla. (Jacksonville). Host: *Belonocnema treatae* Mayr.
Copidosoma melanocephalum Ashmead, 1886. Amer. Ent. Soc. Trans. 13: 131. "♂" = ♀.

melanocerus Ashmead. Ont. (Ottawa).
Ceraphron melanocerus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 124, 129. ♀.

mellipes Ashmead. Fla. (Jacksonville).
Ceraphron mellipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 125, 131. ♂ ♀.

minutus (Ashmead). Ont. (Ottawa).
Megaspilidea minuta Ashmead, 1888. Canad. Ent. 20: 49. ♀.

nevadensis Kieffer. Nev. (Ormsby).
Ceraphron nevadensis Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 260. ♀

pacificus (Whittaker), n. comb. B. C. (Chilliwack).
Calliceras pacifica Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 129. ♀.

pallidipes (Fouts), n. comb. Md. (Glen Echo).
Calliceras pallidipes Fouts, 1924. Ent. Soc. Wash. Proc. 26: 161. ♀.

pallidiventris Ashmead. "Md. (Fort Pendleton)."
Ceraphron pallidiventris Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 124, 126. ♀.

pedalis Ashmead. Va. (Arlington).
Ceraphron pedalis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 124, 130. ♀.

punctatus Ashmead. Md., D. C., Va.
Ceraphron punctatus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 124, 127. ♂ ♀.

quissetensis Brues.
Ceraphron quissetensis Brues, 1906. Wis. Nat. Hist. Soc. Bul. 4: 145, 147. ♀.

salicicola Ashmead. Calif. (Los Angeles).
Ceraphron salicicola Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 124, 128. ♀.

schwarzi Muesebeck and Walkley, n. name. Md., D. C.
Ceraphron glaber Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 125, 130. ♂ ♀. Preocc. by Boheman, 1831.

tertius Dalla Torre. D. C., Va.
Ceraphron basalis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 124, 127. ♂ ♀. Preocc.
Ceraphron tertius Dalla Torre, 1898. Cat. Hym., v. 5, p. 528. N. name.

unicolor Ashmead. Wyo., Utah, Calif.
Ceraphron unicolor Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 124, 128. ♀.

whittakeri (Fouts), n. comb. B. C., Oreg.
Calliceras whittakeri Fouts, 1927. Ent. Soc. Wash. Proc. 29: 173. ♀ ♂.

Genus NEOCERAPHRON Ashmead

Neoceraphron Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 136.
Type: *Ceraphron macroneurus* Ashmead. Monob.
Neoceraphron Schulz, 1906. Spolia Hym., p. 152. Emend.

macroneurus (Ashmead). D. C., Va., Fla.
Ceraphron macroneurus Ashmead, 1887. Ent. Amer. 3: 97. ♂.

Genus APHANOGMUS Thomson

Aphanogmus Thomson, 1858. Öfvers. Kongl. Vetensk. Akad. Forh. 15: 287 305.
Type: *Aphanogmus fumipennis* Thomson. Desig. by Ashmead, 1893.
Taxonomy: Szelényi, 1940. Mus. Nat. Hungarici Ann. (pt. Zool.) 33: 122–136.

bicolor Ashmead. Ont. (Ottawa).
Aphanogmus bicolor Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 133, 134. ♀.

canadensis Whittaker. B. C. (Hollyburn).
Aphanogmus canadensis Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 131. ♂.

dorsalis Whittaker. B. C. (Hollyburn).
Aphanogmus dorsalis Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 132. ♀.

floridanus Ashmead. S. C., Fla. Host: *Anthrocnodax carolina* Feh.
Aphanogmus floridanus Ashmead, 1893. U.S. Natl. Mus. Bul. 45: 133, 134. ♀ ♂.

marylandicus Ashmead. Md. (Oakland).
Aphanogmus marylandicus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 133, 135. ♀.

niger Ashmead. D. C.
Aphanogmus niger Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 133. ♂.

obsoletus Whittaker. B. C. (Hollyburn).
Aphanogmus obsoletus Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 131. ♀.

pallidipes Ashmead. Va. (Arlington).
Aphanogmus pallidipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 133, 135. ♀.

salicicola Harrington. Ont. (Ottawa). Host: Cecidomyid gall.
Aphanogmus salicicola Harrington, 1899. Canad. Ent. 31: 78. ♀ ♂.

subapterus Whittaker. B. C. (Chilliwack).
Aphanogmus subapterus Whittaker, 1930. Ent. Soc. Wash. Proc. 30: 130. ♀.

varipes Ashmead. Kans.
Aphanogmus varipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 133, 135. ♀.

virginiensis Ashmead. Va. (Arlington).
Aphanogmus virginiensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 133, 135. ♀.

Genus ECITONETES Brues

Ecitonetes Brues, 1902. Amer. Nat. 36: 370.
Type: *Ecitonetes subapterus* Brues. Monob.

subapterus Brues. Tex. In colony of *Eciton coecum* (Latr.).
Ecitonetes subapterus Brues, 1902. Amer. Nat. 36: 370. ♀.

Genus ALLOMICROPS Kieffer

Allomicrops Kieffer, 1914. Das Tierreich, Lief. 42, pp. 69, 138.
Type: ***Ceraphron abnormis*** Perkins. Monob.

abnormis (Perkins). Calif.; Hawaiian Isl. Hosts: *Haplogonatopus* sp., *Echthrodelphax* sp.
Ceraphron abnormis Perkins, 1910. Fauna Hawaii., v. 2, p. 617. ♀ ♂.
Biology: Williams, 1931. Handbook of the Insects and Other Invertebrates of Hawaiian Sugar Cane Fields, p. 248.

Genus LAGYNODES Foerster

Microps Haliday, 1833. Ent. Mag. 1: 272. Preocc.
Type: ***Microps rubi*** Haliday. Monob.
Lagynodes Foerster, 1840. [23] Beitr. Monog. Pteromalidae 1, no page number.
Type: ***Lagynodes rufus*** Foerster. Monob.
Triogmus Marshall, 1874. Ent. Annual, p. 134.
Type: ***Triogmus furcifer*** Marshall. Monob.

minutus Ashmead. D. C., Va.
Lagynodes minutus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 121. ♀.

xanthus Whittaker. B. C. (Hollyburn).
Lagynodes xanthus Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 72. ♀.

Genus ATRITOMELLUS Kieffer

Atritomus Foerster, 1878. Naturh. Ver. Rheinlande Verh. 35: 56. Preocc.
Type: ***Atritomus coccophagus*** Foerster, 1878. Monob. and orig. desig.
Atritomellus Kieffer, 1914. Das Tierreich, Lief. 42, pp. 139, 141.
Type: ***Atritomus coccophagus*** Foerster. Autob.

americanus (Ashmead). Md. (Odenton).
Atritomus americanus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 122. ♂.

californicus (Kieffer). Calif. (San Mateo).
Atritomus californicus Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 256. ♂.

rufiventris (Ashmead). Fla.
Atritomus rufiventris Ashmead, 1887. Ent. Amer. 3: 98. ♀.

Genus LYGOCERUS Forester

Lygocerus Foerster, 1856. Hym. Stud., v. 2, pp. 97, 99. No species.
Type: ***Ceraphron ramicornis*** Boheman. Desig. by Ashmead, 1893.
Biology: Clausen, 1940. Entomophagous Insects, pp. 257–261.

Some species, at least, appear to be hyperparasites.

alaskensis Ashmead. Alaska (St. Paul Isl.).
Lygocerus alaskensis Ashmead, 1902. Proc. Wash. Acad. Sci. 4: 140. ♀.

californicus Ashmead. Calif.
Lygocerus californicus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 109, 111. ♂.

constrictus Brues. Wash.
Lygocerus constrictus Brues, 1910 (1909). Wis. Nat. Hist. Soc. Bul. 7: 119. ♂.

floridanus (Ashmead). Fla. (Jacksonville). Host: *Cinara australis* (Ashm.).
Chirocerus floridanus Ashmead, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. xxxiv. ♀ ♂.

niger (Howard). Pa., N. J., D. C., Ohio, Mich., Ind. Host: *Aphidius polygonaphis* (Fitch).
Megaspilus niger Howard, 1890. U. S. Dept. Agr. Insect Life 2: 247. ♀.

[23] See Griffin, 1931. Ann. Mag. Nat. Hist. 10 (7): 498.

pacificus Ashmead. Calif. (Placer Co.).
Lygocerus pacificus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 109, 112. ♀.

pallipes Harrington. Que. (Hull).
Lygocerus pallipes Harrington, 1899. Canad. Ent. 31: 77. ♀ ♂.

picipes Ashmead. Ont., Ohio, S. C.
Lygocerus picipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 108, 109. ♀.

6-dentatus Ashmead. D. C., W. Va.
Lygocerus 6-dentatus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 109, 111. ♀ ♂.

stigmatus (Say). Ont., Mich., Ind. Host: Raspberry aphis.
Ceraphron stigmatus Say, 1836. Boston Jour. Nat. Hist. 1: 277.

triticum (Taylor). U. S. Host: *Phytophaga destructor* (Say).
Ceraphron triticum Taylor, 1860. Amer. Agr., p. 300. ♂.

Genus CONOSTIGMUS Dahlbom

Conostigmus Dahlbom, 1858 (1857). Öfvers Kongl. Vetensk. Akad. Forh. 14: 291. No species.
Type: *Megaspilus alutaceus* Thomson, 1859 (1858). Present desig.
Eumegaspilus Ashmead, 1888. Canad. Ent. 20: 48, 49.
Type: *Eumegaspilus canadensis* Ashmead. Present desig.

ambiguus (Ashmead). D. C., Va.
Megaspilus ambiguus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 113, 115. ♀ ♂.

anomaliventris (Ashmead). Mich. (Marquette).
Megaspilus anomaliventris Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 113, 114. ♀.

ater Fouts. Calif. Host: Syrphid puparium.
Conostigmus ater Fouts, 1926. Ent. Soc. Wash. Proc. 28: 168. ♀.

bacilliger (Kieffer). Calif. (San Mateo).
Megaspilus bacilliger Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 258. ♂.

bakeri Kieffer. Calif.
Conostigmus Bakeri Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 36. ♂.

californicus (Ashmead). Calif. (Folsom).
Megaspilus californicus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 114, 118. ♂.

canadensis (Ashmead). Ont. (Ottawa).
Eumegaspilus Canadensis Ashmead, 1888. Canad. Ent. 20: 49. ♀.

crawfordi (Mann), n. comb. Md. (Great Falls). In nest of *Formica exsectoides* Forel.
Megaspilus crawfordi Mann, 1920. Ent. Soc. Wash. Proc. 22: 60. ♀.

harringtoni (Ashmead). Ont. (Ottawa).
Megaspilus Harringtoni Ashmead, 1888. Canad. Ent. 20: 48. ♂ ♀.

hyalinipennis (Ashmead). Fla. (Jacksonville).
Megaspilus hyalinipennis Ashmead, 1887. Ent. Amer. 3: 98. ♀.

inermis (Kieffer). Calif. (San Mateo).
Megaspilus inermis Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 258, 259. ♂.

integriceps (Kieffer). Calif. (San Mateo).
Megaspilus integriceps Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 258, 259. ♀.

laeviceps (Ashmead). Md., D. C., Va.
Megaspilus laeviceps Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 114, 118. ♂.

marylandicus (Ashmead). Md. (Oakland).
Megaspilus marylandicus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 113, 116. ♀.

nevadensis (Kieffer). Nev. (Ormsby).
Megaspilus nevadensis Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 258, 259. ♀.

nigripes (Kieffer). Calif. (Santa Clara).
Megaspilus nigripes Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 258. ♂.

orcasensis (Brues). Wash. (Puget Sound).
Megaspilus orcasensis Brues, 1910. Wis. Nat. Hist. Soc. Bul. 7: 118. ♂.

ottawensis (Ashmead). Ont. (Ottawa).
Eumegaspilus Ottawensis Ashmead, 1888. Canad. Ent. 20: 49. ♀.

penmaricus (Ashmead). Pa. (Pen Mar).
Megaspilus penmaricus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 113. ♀.

pergandei (Ashmead). D. C.
Megaspilus Pergandei Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 114, 118. ♂.

popenoei (Ashmead). Kans., Ill.
Megaspilus Popenoei Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 113, 114. ♀.

pulchellus Whittaker. B. C. (Hollyburn).
Conostigmus pulchellus Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 133. ♂.

schwarzi (Ashmead). D. C.
Megaspilus Schwarzi Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 113, 115. ♀.

striatipes (Ashmead). Ont. (Ottawa).
Megaspilus striatipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 113, 115. ♀.

timberlakei Kamal. Calif. (San Diego). Hosts: *Allograpta obliqua* (Say) (pupae), *Sphaerophoria cylindrica* (Say).
Conostigmus timberlakei Kamal, 1926. Canad. Ent. 58: 285. ♀.
Biology: Kamal, [1939]. Egypt. Min. Agr. Tech. and Sci. Serv. Ent. Sect. Bul. 207: 42–44.

trapezoidus Kieffer. Pa. (Jeannette).
Conostigmus trapezoidus Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 35. ♂.

virginicus (Ashmead). Mass., Va., Mich., Ind. Host: *Sturmia scutellata* (R. D.).
Megaspilus virginicus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 113, 117. ♀.

zaglouli Kamal. Calif. Hosts: *Scaeva pyrastri* (L.), *Syrphus opinator* O. S.
Conostigmus zaglouli Kamal, 1926. Canad. Ent. 58: 285. ♀ ♂.
Biology: Kamal, [1939]. Egypt. Min. Agr. Tech. and Sci. Serv. Ent. Sect. Bul. 207: 40–42.

Genus TRICHOSTERESIS Foerster

Trichosteresis Foerster, 1856. Hym. Stud., v. 2, pp. 97, 99.
Type: *Ceraphron glaber* Boheman. Desig. by Ashmead, 1893.
Thliboneura Thomson, 1859 (1858). Öfvers. Kongl. Vetensk. Akad. Forh. 15: 287, 288.
Type: *Ceraphron glaber* Boheman. Present desig.

floridana Ashmead. Fla. (Jacksonville).
Trichosteresis floridanus Ashmead, 1887. Ent. Amer. 3: 98. ♀.

vitripennis Whittaker. B. C. (Chilliwack).
Trichosteresis vitripennis Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 72. ♀

Genus MEGASPILUS Westwood

Megaspilus Westwood, 1829. *In* Stephens, Nomencl. Brit. Ins., column 37.
Type: *Ceraphron dux* Curtis. Desig. by Westwood, 1839.
Habropelte Thomson, 1858. Öfvers. Kongl. Vetensk. Akad. Forh. 15: 288.
Type: *Ceraphron tibialis* Boheman. Desig. by Ashmead, 1893.
Megaspilodes Ashmead, 1888. Canad. Ent. 20: 48.
Type: *Ceraphron armatus* Say. Present desig.
Megalospilus Schulz, 1906. Spolia Hym., p. 152. Emend.
Habropelta Schulz, 1906. Spolia Hym., p. 152. Emend.

armatus (Say). Ont., Va., Ind.
Ceraphron armatus Say, 1836. Boston Jour. Nat. Hist. 1: 276.
Telenomus stygicus Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 189. ♀.

fuscipennis (Ashmead). Que., Maine, D. C., Va., N. C., Iowa, La., Kans., Wyo., Wash.
Megaspilodes fuscipennis Ashmead, 1888. Expt. Sta. Kans. Bul. 3: App. p. 11. ♂ ♀.

eviceps (Kieffer). Nev. (Ormsby).
Habropelte leviceps Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 256, 257. ♀.

nigerrimus (Kieffer). Calif. (Santa Clara).
Habropelte nigerrimus Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 256, 257. ♂ ♀.

nigerrimus var. **sublevis** (Kieffer). Calif. (Santa Clara).
Habropelte nigerrimus var. *sublevis* Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 257. ♂.

Genus CONOSTIGMOIDES Dodd

Conostigmoides Dodd, 1914. Roy. Soc. So. Austral. Trans. 38: 88, 94.
Type: *Eumagaspilus erythrothorax* Ashmead. Monob. and orig. desig.

erythrothorax (Ashmead). Fla. (Jacksonville).
Eumegaspilus erythrothorax Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 120. ♀ ♂.

Genus DENDROCERUS Ratzeburg

Dendrocerus Ratzeburg, 1852. Ichn. d. Forstins., v. 3, p. 180.
Type: *Dendrocerus lichtensteinii* Ratzeburg. Monob.

Members of this genus develop as parasites in the cocoons of Coniopterygidae.

conwentziae Gahan. Mass. Host: *Conwentzia hageni* Banks.
Dendrocerus conwentziae Gahan, 1919. Ent. Soc. Wash. Proc. 21: 122. ♀ ♂.

conwentziae var. **rufus** Gahan. Wash. Host: *Conwentzia* sp.
Dendrocerus conwentziae var. *rufus* Gahan, 1919. Ent. Soc. Wash. Proc. 21: 123. ♀ ♂.

Family DIAPRIIDAE

This is a large family of which apparently only a small percentage of the species have been described. Most of those whose habits are known are parasites of Diptera.

Revision: Kieffer, 1916. Das Tierreich, Lief. 44, pp. VI–XXX, 1–627.

Subfamily DIAPRIINAE

Genus SOLENOPSIA Wasmann

Solenopsia Wasmann, 1899. Zoologica Stuttgart, v. 26: 53, 126.
Type: *Solenopsia imitatrix* Wasmann. Monob.

americana Brues. Tenn. In nest of *Paratrechina* (*Nylanderia*) *parvula* (Mayr).
Solenopsia americana Brues, 1936. Psyche 43: 16. ♀.

Genus AUXOPAEDEUTES Brues

Auxopaedeutes Brues, 1903. Amer. Ent. Soc. Trans. 29: 126.
Type: *Auxopaedeutes sodalis* Brues. Monob.

lyriformis Brues. Mass. (Boston). In nest of *Solenopsis molesta* (Say).
Auxopaedeutes lyriformis Brues, 1910. Wis. Nat. Hist. Soc. Bul. 8: 82. ♀.

sodalis Brues. Tex. In nest of *Solenopsis molesta* (Say).
Auxopaedeutes sodalis Brues, 1903. Amer. Ent. Soc. Trans. 29: 127. ♀.

Genus PROPANTOLYTA Kieffer

Propantolyta Kieffer, 1910. *In* André, Spec. Hym. Eur. Alg., v. 10, pp. 697, 709.
Type: ***Polypeza pergandei*** Ashmead. Monob. and orig. desig.

pergandei (Ashmead). Va. (Arlington).
Polypeza Pergandei Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 387. ♂ ♀.

Genus MYRMECOPRIA Ashmead

Myrmecopria Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 407, 446.
Type: ***Loxotropa mellea*** Ashmead. Monob. and orig. desig.

mellea (Ashmead). Fla., Ala. In nests of *Eciton* spp.
Loxotropa mellea Ashmead, 1887. Canad. Ent. 19: 196. ♂.

Genus LEPIDOPRIA Kieffer

Lepidopria Kieffer, 1910. *In* André, Spec. Hym. Eur. Alg., v. 10. p. 695. No species.
Type: ***Lepidopria pedestris*** Kieffer, 1911. First included species.

aberrans Brues. Md. (Hagerstown).
Lepidoria (!) ***aberrans*** Brues, 1916. Psyche 23: 126. ♀.

Genus ADELIOPRIA Ashmead

Adeliopria Ashmead, 1902. Biol. Bul. 3: 15.
Type: ***Adeliopria longii*** Ashmead. Monob. and orig. desig.

longii Ashmead. Tex. (Austin). Host: *Forcipomyia wheeleri* (Long).
Adeliopria longii Ashmead, 1902. Biol. Bul. 3: 15. ♀ ♂.

Genus ENTOMACIS Foerster

Entomacis Foerster, 1856. Hym. Stud., v. 2, pp. 121, 123. No species.
Type: ***Diapria (Glyphidopria) platyptera*** Haliday, 1857. Present desig.
Glyphidopria Haliday, 1857. Nat. Hist. Rev. 4: 172. Proposed as subgenus of *Diapria* Latreille. N. syn.
Type: ***Diapria (Glyphidopria) platyptera*** Haliday, 1857. Present desig.

ambigua (Brues). Conn. (Colebrook). Host: In nest of *Stenamma fulva aquia* var. *picea* Emery.
Hemilexodes ambigua Brues, 1903. Amer. Ent. Soc. Trans. 29: 126. ♀.

canadensis (Harrington). Canada.
Hemilexodes canadensis Harrington, 1899. Roy. Soc. Canada Trans. (ser. 2) 5 (4): 201. ♀.

mellipetiolata (Ashmead). Fla.
Hemilexis mellipetiola Ashmead, 1887. Canad. Ent. 19: 196. "♂" = ♀.
Hemilexis mellipetiolata Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 389, 390. Emend.

subemarginata (Ashmead). D. C., Va.
Hemilexis subemarginata Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 389. ♀ ♂.

Genus APARAMESIUS Kieffer

Aparamesius Kieffer, 1913. Insecta 3: 436.
Type: ***Aparamesius carinatus*** Kieffer. Orig. desig.

analis (Ashmead). Tex., "Carolina."
Basalys analis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 443, 445. ♀.

clavipes (Ashmead). Ont. (Ottawa).
Paramesius clavipes Ashmead, 1888. Canad. Ent. 20: 53. ♀.

nigriclavis Fouts. Ont., N. Y.
Aparamesius nigriclavis Fouts, 1926. Ent. Soc. Wash. Proc. 28: 169. ♀.

Genus HEMILEXIS Foerster

Hemilexis Foerster, 1856. Hym. Stud., v. 2, pp. 122, 127. No species.
Type: ***Hemilexis californica*** Ashmead, 1893. Desig. by Kieffer, 1916.
Hemilexodes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 399. N. syn.
Type: ***Hemilexodes floridana*** Ashmead. Monob. and orig. desig.

californica Ashmead. Calif., Wash.
Hemilexis californica Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 389, 390. ♀ ♂.

floridana (Ashmead). Fla. (Jacksonville).
Hemilexodes floridana Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 400. ♀.

Genus IDIOTYPA Foerster

Idiotypa Foerster, 1856. Hym. Stud., v. 2, pp. 122, 125. No species.
Type: ***Diapria (Mionopria) maritima*** Haliday, 1857. Desig. by Ashmead, 1893.
Mionopria Haliday, 1857. Nat. Hist. Rev., 4: 172.
Type: ***Diapria (Mionopria) maritima*** Haliday. Monob.

pallipes Fouts. N. Y. (McLean).
Idiotypa pallipes Fouts, 1925. Ent. Soc. Wash. Proc. 27: 102. ♀.

Genus PARAMESIUS Westwood

Paramesius Westwood, 1832. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 1: 129.
Type: ***Paramesius rufipes*** Westwood. Monob.

laetus Fouts. B. C. (Chilliwack).
Paramesius laetus Fouts, 1927. Ent. Soc. Wash. Proc. 29 (8): 170. ♀.

oregonensis Ashmead. Oreg., "Vancouver."
Paramesius oregonensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 392, 395. ♂.

pallidipes Ashmead. D. C., Va., "Carolina."
Paramesius pallidipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 392, 395. ♂ ♀.

parvulus Ashmead. D. C., Va.
Paramesius parvulus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 392, 393. ♀.

spinosus Ashmead. D. C.
Paramesius spinosus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 392, 394. ♀ ♂.

terminatus (Say). Md., Ind.
Psilus terminatus Say, 1836. Boston Jour. Nat. Hist. 1: 282.

utahensis Ashmead. Utah (Utah Lake).
Paramesius utahensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 392, 394. ♀.

Genus ANEURHYNCHUS Westwood

Mythras Curtis, 1829. Guide Brit. Ins., col. 108, no. 569. Nom. nud.
Aneurhynchus Westwood, 1832. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 1: 129.
Type: ***Aneurhynchus galesiformis*** Westwood. Monob.
Aneurrhynchus Marshall, 1873. Cat. Brit. Hym.; Oxyura, p. 11. Emend.

floridanus Ashmead. Fla.
Aneurhynchus floridanus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 404, 405. ♂.

mellipes Ashmead. Ont. (Ottawa).
Aneurhynchus mellipes Ashmead, 1888. Canad. Ent. 20: 52. ♀.

unifoveatus Kieffer. Pa. (Jeannette).
Aneurhynchus unifoveatus Kieffer, 1908. Soc. Sci. Bruxelles Ann. 32: 41. ♂.

virginicus Ashmead. W. Va. (Harper's Ferry).
Aneurhynchus virginicus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 404, 405. ♂.

Genus PSILUS Panzer

Psilus Panzer, 1801. Faunae Ins. German., heft 83, No. 11.
Type: ***Psilus cornutus*** Panzer. Monob.
Galesus Curtis, 1831. Brit. Ent., v. 3, p. 341.
Type: ***Psilus cornutus*** Panzer. Orig. desig.
Coptera Say, 1836. Boston Jour. Nat. Hist. 1: 281.
Type: ***Coptera polita*** Say. Monob.
Anisoptera Herrich-Schaeffer, 1840. Nomencl. Ent., v. 2, pp. 57, 69.
Type: ***Anisoptera egregia*** Herrich-Schaeffer. Monob.
Schizogalesus Kieffer, 1911. *In* André, Spec. Hym. Eur. Alg., v. 10, p. 832.
Type: ***Galesus (Schizogalesus) punctatus*** Kieffer. Present desig.
Biology: Clausen, 1940. Entomophagous Insects, pp. 261–262.

atricornis (Ashmead), n. comb. Ont., Md., Va., Wash. Host: *Lonchaea corticis* Taylor.
Galesus atricornis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 408, 409. ♀.

autumnalis (Brues), n. comb. Wis. (Fox Point).
Galesus autumnalis Brues, 1906. Wis. Nat. Hist. Soc. Bul. 4: 150, 151. ♀.

clarimontis (Kieffer), n. comb. Calif. (Claremont).
Galesus clarimontis Kieffer, 1906. Berlin. Ent. Ztschr. 50: 285. ♂.

microtomus (Kieffer), n. comb. Calif. (San Mateo).
Galesus microtomus Kieffer, 1906. Berlin. Ent. Ztschr. 50: 285. ♂.

pilosus (Ashmead), n. comb. Tex.
Galesus pilosus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 409, 411. ♂.

politus (Say), n. comb. Ont., N. Y., D. C., Md., Fla., Ind. Hosts: *Rhagoletis cingulata* (Loew), *R. fausta* (O. S.).
Coptera polita Say, 1836. Boston Jour. Nat. Hist. 1: 282. ♂.

punctiger (Fouts), n. comb. Tex. (Uvalde). Host: ?*Drosophila* sp.
Galesus punctiger Fouts, 1926. Ent. Soc. Wash. Proc. 28: 170. ♀ ♂.

quebecensis (Provancher), n. comb. Que., D. C.
Galesus Quebecensis Provancher, 1881. Nat. Canad. 12: 260. ♂.

texanus (Ashmead), n. comb. Tex.
Galesus texanus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 409, 411. ♂.

viereckii (Brues), n. comb. Conn. (Colebrook).
Galesus viereckii Brues, 1905. Wis. Nat. Hist. Soc. Bul. (2) 3: 187. ♂.

Genus SPILOMICRUS Westwood

Spilomicrus Westwood, 1832. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 1: 129.
Type: ***Spilomicrus stigmaticalis*** Westwood. Monob.
Chlidonia Herrich-Schaeffer, 1838. Faunae Ins. German., heft 157, pl. 24.
Type: ***Chlidonia moniliata*** Herrich-Schaeffer, 1838. Desig. by Viereck, 1914.

alaskensis Ashmead. Alaska (Muir Inlet).
Spilomicrus alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 140. ♀.

armatus Ashmead, D. C.
Spilomicrus armatus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 397. ♀.

atriclavus Ashmead. Ont. (Ottawa).
Spilomicrus atriclavus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 397, 398. ♀.

atropetiolatus (Ashmead). Colo. (West Cliff).
Ismarus atropetiolatus Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 11. ♀.

brevicornis (Ashmead). Colo.
Basalys brevicornis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 443, 446. ♀.

bifoveatus Kieffer. Pa. (Jeannette).
Spilomicrus bifoveatus Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 40. ♂ ♀.

californicus (Ashmead). Calif. (Santa Cruz).
Basalys californica Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 443, 446. ♀.

flavicornis Ashmead. Va. (Arlington).
Spilomicrus flavicornis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 397, 398. ♂.

foveatus Provancher. Que. (Cap. Rouge).
Spilomicrus foveatus Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 176. ♀.

kiefferi Fouts. N. Y.
Spilomicrus kiefferi Fouts, 1925. Ent. Soc. Wash. Proc. 27: 150. ♀ ♂.

longicornis Provancher. Canada.
Spilomicrus longicornis Provancher, 1881. Nat. Canad. 12: 262. ♀.

unifoveatus Kieffer. Pa. (Jeannette).
Spilomicrus unifoveatus Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 41. ♀.

virginicus Fouts. Va. (Falls Church). Host: *Xylota bicolor* Loew.
Spilomicrus virginicus Fouts, 1926. Ent. Soc. Wash. Proc. 28: 168. ♀.

Genus MONELATA Foerster

Monelata Foerster, 1856. Hym. Stud., v. 2, pp. 123, 127. No species.
Type: *Diapria parvula* Nees. Desig. by Ashmead, 1893.
Corynopria Haliday, 1857. Nat. Hist. Rev. 4: 170.
Type: *Diapria petiolaris* Nees. Present desig.

hirticollis Ashmead. Ont. (Ottawa).
Monelata hirticollis Ashmead, 1888. Canad. Ent. 20: 54. ♀.

mellicollis Ashmead. Fla. (Jacksonville).
Monelata mellicollis Ashmead, 1887. Canad. Ent. 19: 197. ♀.

nigra Whittaker. B. C. (Hollyburn).
Monelata nigra Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 133. ♀.

Genus XENOPRIA Fouts

Xenopria Fouts, 1939. Ent. Soc. Wash. Proc. 41: 260.
Type: *Xenopria columbiana* Fouts. Orig. desig.

columbiana Fouts. B. C. (Kootenay Natl. Park). Host: Stratiomyid sp.
Xenopria columbiana Fouts, 1939. Ent. Soc. Wash. Proc. 41: 261. ♀ ♂.

nigripes Fouts. Wyo. (Saratoga).
Xenopria nigripes Fouts, 1939. Ent. Soc. Wash. Proc. 41: 262. ♀.

punctata Fouts. Md. (Cabin John).
Xenopria punctata Fouts, 1939. Ent. Soc. Wash. Proc. 41: 263. ♀.

Genus PHAENOPRIA Ashmead

Phaenopria Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 407, 436.
Type: *Phaenopria minutissima* Ashmead. Orig. desig.

acutiventris Brues. Tex. (near Austin). Host: In nest of *Eciton coecum* (Latr.).
Phaenopria acutiventris Brues, 1902. Amer. Nat. 36: 372. ♀.

affinis Ashmead. D. C.
Phaenopria affinis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 437, 440. ♀.

haematobiae Ashmead. Va., Tex. Host: *Siphona irritans* (L.).
Phaenopria haematobiae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 437, 438. ♀.

minutissima Ashmead. Fla. (Jacksonville).
Phaenopria minutissima Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 437, 438. ♀.

montana Ashmead. Calif. (Santa Cruz Mts.).
Phaenopria montana Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 438, 440. ♂.

occidentalis Fouts. B. C. (Chilliwack).
Phaenopria occidentalis Fouts, 1927. Ent. Soc. Wash. Proc. 29: 168. ♀.

parva Ashmead. D. C.
Phaenopria parva Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 438, 440. ♂.

pezomachoides (Ashmead), n. comb. Ont. (Ottawa).
Loxotropa pezomachoides Ashmead, 1888. Canad. Ent. 20: 53. ♀.
Phaenopria aptera Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 437, 439. ♀. N. syn.

popei Muesebeck. Mich. (Sodon Lake, Oakland Co.). Host: *Sepedon fuscipennis* Loew.
Phaenopria popei Muesebeck, 1950 (1949). Canad. Ent. 81: 234. ♀ ♂.

schwarzii Ashmead. Md., D. C., Va., Fla.
Phaenopria Schwarzii Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 437, 439. ♀.

virginica Ashmead. D. C., Va.
Phaenopria virginica Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 437, 438. ♀ ♂.

Genus GLYPTONOTA Foerster

Glyptonota Foerster, 1856. Hym. Stud., v. 2, pp. 122, 126. No species.
Type: *Glyptonota nigriclavata* Ashmead, 1893. First included species.

nigriclavata Ashmead. D. C.
Glyptonota nigriclavata Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 401. ♀.

Genus ACIDOPRIA Kieffer

Acidopria Kieffer, 1913. Insecta 3: 422.
Type: *Acidopria variicornis* Kieffer. Desig. by Kieffer, 1916.

columbiana (Ashmead). Md., D. C., Va. Host: In nests of *Halictus pruinosus* Robt.
Loxotropa columbiana Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 413. ♀.
Loxotropa ruficornis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 414. ♂. Preocc.
Loxotropa ashmeadi Kieffer, 1911. *In* André, Spec. Hym. Eur. Alg., v. 10, p. 923. N. name.

Genus LOXOTROPA Foerster

Loxotropa Foerster, 1856. Hym. Stud., v. 2, pp. 122, 123, 126.
Type: *Psilus antennatus* Jurine. Monob.
Biology: Wright, Geering, and Asby, 1947. Bul. Ent. Res. 37: 518–525.

ashmeadiana Kieffer. Canada.
Loxotropa ashmeadiana Kieffer, 1916. Das Tierreich, Lief. 44, pp. 171, 190. ♀.

californica Ashmead. Calif. (Santa Cruz Mts.).
Loxotropa californica Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 413, 415. ♀.

flavipes Ashmead. Md., D. C., Va.
Loxotropa flavipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 413, 415. ♀ ♂.

modesta Brues. Pa. (Lehigh Gap).
Loxotropa modesta Brues, 1905. Wis. Nat. Hist. Soc. Bul. 3: 188. ♀.

nana Ashmead. Fla.
Loxotropa nana Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 413, 415. ♀.

nigrescens Fouts. B. C., Sask.
Loxotropa nigrescens Fouts, 1927. Ent. Soc. Wash. Proc. 29: 169. ♀.

pegomyiae Brues. Minn. Host: *Hylemya brassicae* (Bouché).
Loxotropa pegomyiae Brues, 1907. Extr. Rpt. Minn. State Ent., p. [1] ♀ ♂.

Genus TRICHOPRIA Ashmead

Trichopria Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 407, 432.
Type: ***Trichopria pentaplasta*** Ashmead. Orig. desig.
Ceratopria Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 407, 429.
Type: ***Ceratopria longiceps*** Ashmead. Orig. desig.
Planopria Kieffer, 1908. Soc. Hist. Nat. Metz. Bul. 25: 19.
Type: ***Diapria californica*** Ashmead. Present desig.
Orthopria Kieffer, 1910. *In* André, Spec. Hym. Eur. Alg., v. 10, p. 984.
Type: ***Diapria californica*** Ashmead. Present desig.
Ashmeadopria Kieffer, 1911. *In* Wytsman, Gen. Ins., fasc. 124, p. 59. N. syn.
Type: ***Diapria verticillata*** Latreille, 1805. Desig. by Mani, 1941.

abdominalis Fouts. N. J., B. C.
Trichopria (Trichopria) abdominalis Fouts, 1926. Ent. Soc. Wash. Proc. 28: 174. ♀.
Taxonomy: Fouts, 1927. Ent. Soc. Wash. Proc. 29: 167.

agromyzae (Fitch). N. Y. Host: *Meoneura vagans* (Fall.).
Diapria Agromyzae Fitch, 1856 (1855). N. Y. State Agr. Soc. Trans. 15: 535. ♂ ♀.

angustipennis Muesebeck. N. Y. (Ithaca). Host: *Lemnaphila scotlandae* Cress.
Trichopria angustipennis Muesebeck, 1939. Ent. Soc. Wash. Proc. 41: 60. ♀ ♂.
Biology: Scotland, 1939. Ent. Soc. Amer. Ann. 32: 717.

armata (Ashmead). Ont. (Ottawa).
Loxotropa armata Ashmead, 1888. Canad. Ent. 20: 53. ♀.

bifovea Kieffer. Calif.
Diapria bifoveata Kieffer, 1906. Berlin. Ent. Ztschr. 50: 286, 287. ♀. Preocc.
Trichopria bifovea Kieffer, 1911. *In* Wytsman, Gen. Ins., fasc. 124, p. 64. N. name.

bifoveolata (Ashmead). W. Va. (Harper's Ferry).
Ceratopria bifoveolata Ashmead, 1893. U. S. Natl. Mus. 45: 429, 430. ♀.

californica (Ashmead). Calif. (Santa Cruz Mts.).
Diapria californica Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 421, 422. ♀ ♂.

carolinensis Ashmead. Pa., "Carolina."
Trichopria carolinensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 433, 434. ♀.

clarimontis (Kieffer). Calif. (Claremont).
Diapria clarimontis Kieffer, 1906. Berlin. Ent. Ztschr. 50: 286, 287. ♂.

columbiana (Ashmead). D. C., Va., Mich. Hosts: *Hydrellia* sp., *H. bergi* Cress.
Diapria columbiana Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 424. ♀.

crassiclava (Kieffer). Calif. (San Mateo).
Diapria crassiclava Kieffer, 1906. Berlin. Ent. Ztschr. 50: 287, 288. ♀.

discreta Muesebeck and Walkley, n. name. D. C.
Diapria tetraplasta Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 422, 426. ♀. Preocc. by Ashmead, 1893, pp. 417, 420.

erythropa (Ashmead). D. C., Va., Fla.
Diapria erythropus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 421, 423. ♀ ♂.

erythrothorax (Ashmead). Fla. (Jacksonville).
Diapria erythrothorax Ashmead, 1887. Canad. Ent. 19: 196. ♂.

flavipes Ashmead. Va. (Arlington).
Trichopria flavipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 433, 436. ♀.

floridana (Ashmead). Fla. (Jacksonville).
Cephalonomia floridana Ashmead, 1887. Canad. Ent. 19: 196. "♂" = ♀.

floridensis (Ashmead), n. comb. Fla. (Fort George).
Galesus floridensis Ashmead, 1887. Canad. Ent. 19 (10): 195. ♂.
Galesus floridanus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 410. Error.

foveata (Kieffer), n. comb. Pa. (Jeannette).
Tropidopria foveata Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 38. ♂.

harringtoni (Ashmead). Ont. (Ottawa).
Loxotropa Harringtoni Ashmead, 1888. Canad. Ent. 20: 53. ♀.

hirticollis (Ashmead). Fla., Tex. Hosts: Blowflies; *Sarcophaga plinthopyga* Wied.
Cephalonomia hirticollis Ashmead, 1887. Canad. Ent. 19: 195. ♀.

infuscatipes (Ashmead). Ont. (Ottawa).
Ceratipria(!) *infuscatipes* Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 429, 431. ♀.

longiceps (Ashmead). Va. (Arlington).
Ceratopria longiceps Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 429. ♀ ♂.

megaplasta (Ashmead). Ont. (Ottawa).
Ceratopria megaplasta Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 429, 430. ♀.
Ceratopria megaloplasta Schulz, 1906. Spolia Hym., p. 151. Emend.

melanocera (Kieffer). Calif. (San Mateo).
Diapria melanocera Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 287, 288. ♀.

montana (Kieffer). Calif. (Claremont).
Diapria montana Kieffer, 1906. Berlin. Ent. Ztschr. 50: 287, 288. ♀.

muscae (Ashmead). Calif.
Diapria muscae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 422, 426. ♂ ♀.

nevadensis (Kieffer). Nev. (Ormsby).
Diapria nevadensis Kieffer, 1906. Berlin. Ent. Ztschr. 51: 287, 288. ♀.

pacifica Ashmead. Calif. (Santa Cruz Mts.).
Trichopria pacifica Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 433, 436. ♀.

paludis Muesebeck. N. Y. (Ithaca). Host: *Lemnaphila scotlandae* Cress.
Trichopria paludis Muesebeck, 1939. Ent. Soc. Wash. Proc. 41: 62. ♀.
Biology: Scotland, 1939. Ent. Soc. Amer. Ann. 32: 717.

parkeri Fouts. Md. (Williamsport).
Trichopria parkeri Fouts, 1920. Ent. Soc. Wash. Proc. 22: 61. ♀ ♂.

pentaplasta Ashmead. D. C., Va., Kans.
Trichopria pentaplasta Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 432, 433. ♀ ♂.

popenoei Ashmead. Kans. (Riley Co.).
Trichopria Popenoei Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 433, 435. ♀ (♂ misdet.).

popenoei var. **illinoisensis** Girault. Ill. (Urbana).
Trichopria popenoei illinoisensis Girault, 1920. U. S. Natl. Mus. Proc. 58: 178. ♀ ♂.

provancheri (Kieffer), n. comb. Ont. (Ottawa).
Ashmeadopria provancheri Kieffer, 1916. Das Tierreich, Lief. 44, pp. 122, 141. ♀.

pusilla (Ashmead). D. C., Va.
Ceratopria pusilla Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 429, 430. ♀.

rufipes Ashmead. Va.
Trichopria rufipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 433, 434. ♀ (♂ misdet.).

simulans (Ashmead), n. comb. Ont. (Ottawa).
Tropidopria simulans Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 417, 419. ♀.

tabanviora Fouts. Sask., Mass. Hosts: *Chrysops mitis* O. S.; *Tabanus reinwardtii* Weid.; *T. nigrovittatus* Macq.
Trichopria (*Trichopria*) *tabanivora* Fouts, 1926. *In* Cameron, Bul. Ent. Res. 17: 39. ♀ ♂.

tetraplasta (Ashmead), n. comb. D. C.
Tropidopria tetraplasta Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 417, 420. ♀.

texana (Ashmead). Tex.
Diapria texana Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 421, 424. ♀.

torquata (Provancher), n. comb. Que., Ont.
Platymischus torquatus Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 182. ♀.

unifoveata (Kieffer), n. comb. Calif. (Claremont).
Tropidopria unifoveata Kieffer, 1906. Berlin. Ent. Ztschr. 50: 286. ♂.

utahensis (Ashmead). Utah (Salt Lake).
Diapria utahensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 421, 423. ♀.

villosicornis (Kieffer). Nev. (Ormsby).
Loxotropa villosicornis Kieffer, 1906. Berlin. Ent. Ztschr. 50: 286. ♂.

virginica (Ashmead). Ont., Va.
Diapria virginica Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 422, 426. ♀.

zimmermanni Ashmead. "Carolina."
Trichopria Zimmermanni Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 432, 434. ♀.

Genus CRACINOPRIA Fouts

Cracinopria Fouts, 1924. Ent. Soc. Wash. Proc. 26: 162.
Type: *Trichopria marylandica* Fouts. Orig. desig.

crassicornis Fouts. Md. (Hagerstown).
Cracinopria crassicornis Fouts, 1924. Ent. Soc. Wash. Proc. 26: 163, 164. ♀.

emarginata Fouts. Md. (Hagerstown).
Cracinopria emarginata Fouts, 1924. Ent. Soc. Wash. Proc. 26: 163. ♂.

marylandica (Fouts). Md. (Hagerstown). Host: Dipterous puparium.
Trichopria marylandica Fouts, 1920. Ent. Soc. Wash. Proc. 22: 62. ♀ ♂.

perplexa Fouts. Md. (Hagerstown).
Cracinopria perplexa Fouts, 1924. Ent. Soc. Wash. Proc. 26: 163, 164. ♀.

Genus BASALYS Westwood

Basalys Westwood, 1833. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. (3) 3: 343.
Type: *Basalys fumipennis* Westwood. Monob.

californiae Kieffer. Calif. (Santa Cruz).
Basalys californiae Kieffer, 1916. Das Tierreich, Lief. 44, pp. 193, 199. ♂.

fuscipennis Ashmead. D. C.
Basalys fuscipennis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 443, 444. ♂.

ganahlii Dalla Torre. D. C.
Basalys picipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 443, 444. ♂. Preocc.
Basalys ganahlii Dalla Torre, 1898. Cat. Hym., v. 5, p. 432. N. name.

microtoma Kieffer. Pa. (Sunbury).
Basalys microtoma Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 39. ♂.

utahensis Ashmead. Utah (Canyon City).
Basalys utahensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 443, 444. ♂.

Genus DIAPRIA Latreille

Diapria Latreille, 1796. Précis. Caract. Ins., p. 110.
Type: *Ichneumon conicus* Fabricius. Desig. by Latreille, 1810.
Tropidopria Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 416.
Type: *Ichneumon conicus* Fabricius. Orig. desig.

conica (Fabricius). Que. to N. C., west to Ont. and Mich.; Kans. Host: *Tubifera tenax* (L.).
Ichneumon conicus Fabricius, 1775. Systema Ent., p. 343.
Biology: Sanders, 1911. Canad. Ent. 43: 48–50.—Maneval, 1937. Mus. Roy. Hist. Nat. Belgique Bul. 13: 7–9.

Genus DOLIOPRIA Kieffer

Doliopria Kieffer, 1910. Ent. Rundschau 27: 48.
Type: ***Doliopria flavipes*** Kieffer. Monob.

americana Fouts. Pa.
Doliopria americana Fouts, 1926. Ent. Soc. Wash. Proc. 28: 169. ♀.

Genus PROSYNACRA Kieffer

Prosynacra Kieffer, 1905. Mus. Civ. Stor. Nat. Genova Ann. (3a) 2: 35.
Type: ***Prosynacra nigriceps*** Kieffer, 1910. First included species.

gracilis Fouts. Mass. (Petersham). Host: ?*Pissodes strobi* (Peck).
Prosynacra gracilis Fouts, 1927. Ent. Soc. Wash. Proc. 29: 171. ♀.

Subfamily CINETINAE Muesebeck and Walkley, n. name

With the suppression of *Belyta* Jurine as a synonym of *Cinetus* Jurine it becomes necessary to use Cinetinae in place of Belytinae.

Genus ISMARUS Haliday

Ismarus Haliday, 1835. Ent. Mag. 2: 467.
Type: ***Cinetus dorsiger*** Curtis. Monob.
Entomia Herrich-Schaeffer, 1840. Nomencl. Ent., v. 2, p. 127. *Nom. nud.*
Entomius Haliday, 1857. Nat. Hist. Rev. 4: 169. Proposed as subgenus of *Ismarus* Haliday.
Type: ***Ismarus halidayi*** Foerster. Present desig.

americanus Fouts. Pa. (Carlisle).
Ismarus americanus Fouts, 1924. Ent. Soc. Wash. Proc. 26: 164. ♀.

nevadensis Kieffer. Nev. (Ormsby).
Ismarus nevadensis Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 276. ♀.

Genus OXYLABIS Foerster

Oxylabis Foerster, 1856. Hym. Stud., v. 2, pp. 128, 130, 133, 139.
Type: ***Cinetus picipes*** Nees. Present desig.
Lyteba Thomson, 1858. Öfvers. Kongl. Vetensk. Akad. Forh. 15: 180.
Type: ***Belyta bisulca*** Nees. Monob.

arcuata Kieffer. Pa. (Jeannette).
Oxylabis arcuata Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 346, 348. ♂.

bifoveolata Brues. N. J. (Snake Hill).
Oxylabis bifoveolatus Brues, 1904. Canad. Ent. 36: 119. ♂.

californica Kieffer. Calif. (San Mateo).
Oxylabis californica Kieffer, 1906. Berlin. Ent. Ztschr. 50: 279. ♀.

carinifrons Kieffer. Wis. (Polk).
Oxylabis carinifrons Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 346, 347. ♂

klagesi Kieffer. Pa. (Jeannette).
Oxylabis Klagesi Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 42. ♂.

spinosa (Provancher). Que., Ont., Va.
Aneurhynchus spinosus Provancher, 1881. Nat. Canad. 12: 262. ♀.

Genus ACANOSEMA Kieffer

Acanosema Kieffer, 1908. *In* André, Spec. Hym. Eur. Alg., v. 10, p. 407.
Type: ***Acanosema rufum*** Kieffer. Orig. desig.

sylvanum Whittaker. B. C. (Hollyburn).
Acanosema sylvana Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 134. ♀ ♂.

Genus CINETUS Jurine

Cinetus Jurine, 1807. Nouv. Méth. Class. Hym. Dipt., p. 310. No species. Type: ***Belyta bicolor*** Jurine. Included by Curtis, 1829.
Belyta Jurine, 1807. Nouv. Méth. Class. Hym. Dipt., p. 311. N. syn. Type: ***Belyta bicolor*** Jurine. Monob.
Cinntus (!) Curtis, 1829. Guide Arrang. Brit. Ins., column 109.
Belita Haliday, 1857. Nat. Hist. Rev. 4: Proc. p. 169. Emend.

anthracinus (Whittaker), n. comb. B. C. (Hollyburn).
Belyta anthracina Whittaker, 1931. Ent. Soc. Wash. Proc. 33: 179. ♀.

bisulcatus (Kieffer), n. comb. Pa.
Belyta bisulcata Kieffer, 1908 (nec 1909). Soc. Sci. Bruxelles Ann. (2) 32: 43. ♂ ♀.

borealis (Whittaker), n. comb. B. C. (Hollyburn).
Belyta boreale Whittaker, 1931. Ent. Soc. Wash. Proc. 33: 179. ♀.

californiae (Kieffer), n. comb. Calif. (Placer Co.).
Zygota californica Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 373. ♂. Preocc.
Aclista californiae Kieffer, 1910. Gen. Ins., fasc. 107, p. 24.

contemptus (Kieffer), n. comb. Pa. (Pittsburgh).
Belyta contempta Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 359, 361. ♂.

crassicornis (Ashmead), n. comb. Va. (Arlington).
Pantoclis crassicornis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 367, 369. ♂ ♀.

despectus (Kieffer), n. comb. Wis. (Polk).
Belyta despecta Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 360, 362. ♂.

erythropus (Ashmead), n. comb, "Wis., Kumlin."
Belyta erythropus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 356, 357. ♀.

infuscatus (Kieffer), n. comb. Pa. (Jeannette).
Belyta infuscata Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 359, 361. ♂.

klagesi (Kieffer), n. comb. Pa. (Jeannette).
Belyta Klagesi Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 360, 362. ♂.

longicollis (Fouts), n. comb. Pa., B. C.
Belyta longicollis Fouts, 1926. Ent. Soc. Wash. Proc. 28: 174. ♀.

missouriensis (Ashmead), n. comb. Mo. (St. Louis).
Aclista missouriensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 375, 377. ♂.

nigripes (Kieffer), n. comb. Calif. (Claremont).
Belyta nigripes Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 280. ♂.

occidentalis Muesebeck and Walkley, n. name. Calif. (Claremont).
Belyta californica Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 360, 363. ♂. Preocc. by Ashmead, 1893.

peninsularis Muesebeck and Walkley, n. name. Fla. (Jacksonville).
Aclista floridana Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 376, 378. ♂. Preocc. by Ashmead, 1893.

robustior (Fouts), n. comb. N. Y., Md.
Belyta robustior Fouts, 1925. Ent. Soc. Wash. Proc. 27: 152. ♀.

rostratus (Harrington), n. comb. Que., Wash.
Belyta rostrata Harrington, 1899. Roy. Soc. Canad. Trans. (2) 5: 196. ♀.

rugifrons (Fouts), n. comb. N. Y., Md.
Belyta rugifrons Fouts, 1926. Brooklyn Ent. Soc. Bul. 21: 149. ♂.

rugosopetiolatus (Ashmead), n. comb. Va., La.
Aclista rugosopetiolata Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 375, 377. ♀.

sanguineus (Whittaker), n. comb. B. C. (Hollyburn).
Belyta sanguinea Whittaker, 1931. Ent. Soc. Wash. Proc. 33: 177. ♀ ♂.

sulcatus (Kieffer), n. comb. Pa.

Belyta bisulcata Kieffer, 1909 (nec 1908). Soc. Sci. Bruxelles Ann. 33: 359, 360. ♀ ♂. Preocc.
Belyta sulcata Kieffer, 1910. *In* Wytsman, Gen. Ins., fasc. 107, p. 22. N. name.

texanus (Ashmead), n. comb. Tex.
Belyta texana Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 356, 357. ♀.

verus (Kieffer), n. comb. Wis. (Polk).
Belyta vera Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 359, 362. ♂.

vilis (Kieffer), n. comb. Pa. (Pittsburgh).
Belyta vilis Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 360, 363. ♂.

whittakeri Muesebeck and Walkley, n. name. B. C. (Hollyburn).
Bleyta excavata Whittaker, 1931. Ent. Soc. Wash. Proc. 33: 180. ♀. Preocc. by Kieffer, 1910.

xanthopus assimilis (Kieffer), n. comb. Pa., Wis.
Belyta xanthopus assimilis Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 360, 364. ♂.

xanthopus xanthopus (Kieffer), n. comb. Wis. (Polk).
Belyta xanthopus Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 360, 364. ♂.

xanthostoma (Kieffer), n. comb. Pa. (Jeannette).
Belyta xanthostoma Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 360, 363. ♂.

Genus PROPSILOMMA Kieffer

Propsilomma Kieffer, 1916. Das Tierreich, Lief. 44, pp. 351, 422.
Type: ***Psilomma columbianum*** Ashmead. Monob.

columbianum (Ashmead). Que., D. C., B. C.
Psilomma columbianum Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 379. ♂ ♀.

Genus ZYGOTA Foerster

Zygota Foerster, 1856. Hym. Stud., v. 2, pp. 128, 131, 133, 135.
Type: ***Belyta abdominalis*** Nees. Desig. by Ashmead, 1893.
Carinia Kieffer, 1905. Soc. Sci. Bruxelles Ann. 29: 140.
Type: ***Carinia nitida*** Kieffer. Monob.
Tetrapsilus Kieffer, 1908. *In* André, Spec. Hym. Eur. Alg., v. 10, p. 397.
Type: ***Tetrapsilus filicornis*** Kieffer. Monob.
Taxonomy: Fouts, 1926. Brooklyn Ent. Soc. Bul. 21: 145–149.

americana Ashmead. Que., Ont., Alaska, Greenland.
Zygota Americana Ashmead, 1888. Canad. Ent. 20: 54. ♂ ♀.

arcuata (Kieffer), n. comb. Pa. (Jeannette).
Aclista (Zygota) arcuata Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 348, 349. ♂.

borealis (Ashmead), n. comb. Ont. (Ottawa).
Aclista borealis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 376, 378. ♀.

caudata (Harrington), n. comb. Que. (Hull).
Aclista caudata Harrington, 1899. Roy. Soc. Canada Trans. (2) 5 (4): 199. ♀ ♂.

crassicornis (Harrington), n. comb. Ont. (Ottawa).
Aclista crassicornis Harrington, 1899. Roy. Soc. Canada Trans. (2) 5 (4): 200. ♂.

distans Muesebedck and Walkley, n. name. Calif., Alaska.
Aclista californica Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 375, 378. ♀. Preocc. by Ashmead, 1893.

dolichoneura (Kieffer), n. comb. Nev. (Ormsby).
Aclista dolichoneura Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 349, 351. ♂.

dupla Muesebeck and Walkley, n. name. Que., D. C., Va.
Aclista rufopetiolata Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 375, 376. ♀. Preocc. by Nees, 1834.

emarginata (Kieffer), n. comb. Wis. (Polk).
Aclista (Zygota) emarginata Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 346, 350. ♂.

excavata (Fouts), n. comb. N. Y. (McLean Res.).
Aclista excavata Fouts, 1926. Brooklyn Ent. Soc. Bul. 21: 146, 147. ♂.

insignis (Kieffer), n. comb. Pa. (Jeannette).
Aclista insignis Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 349, 350. ♂.

levistylus (Kieffer), n. comb. Pa. (Jeannette).
Aclista levistylus Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 348, 350. ♂.

microneura (Kieffer), n. comb. Calif. (Claremont).
Aclista microneura Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 349, 351. ♂.

monticola Muesebeck and Walkley, n. name. Calif. (Santa Cruz Mts.).
Aclista rufescens Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 375, 376. ♀. Preocc. by Ashmead, 1893.

obliterata (Fouts), n. comb. N. Y. (McLean Res.).
Aclista obliterata Fouts, 1926. Brooklyn Ent. Soc. Bul. 21: 146, 147. ♂.

palustra (Fouts), n. comb. N. Y. (McLean Bogs Res.).
Aclista palustra Fouts, 1926. Brooklyn Ent. Soc. Bul. 21: 145, 146. ♂.

rufa (Ashmead), n. comb. Tex.
Aclista rufa Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 375, 376. ♀.

scleroneura (Kieffer), n. comb. Pa. (Jeannette).
Aclista scleroneura Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 349, 352. ♂.

simulans (Fouts), n. comb. N. Y. (McLean Bogs).
Aclista simulans Fouts, 1926. Brooklyn Ent. Soc. Bul. 21: 146, 148. ♂.

texana Ashmead. Tex.
Zygota texana Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 373, 374. ♀.

Genus DIPHORA Foerster

Diphora Foerster, 1856. Hym. Stud., v. 2, pp. 130, 140.
Type: *Diphora westwoodii* Foerster. Monob.

nearctica Whittaker. B. C. (Hollyburn).
Diphora nearctica Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 74. ♀.

Genus MACROHYNNIS Foerster

Macrohynnis Foerster, 1856. Hym. Stud., v. 2, pp. 129, 136. No species.
Type: *Macrohynnis lepidus* Mayr, 1904. First included species.

americanus Kieffer. Pa. (Jeannette).
Macrohynnis americanus Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 338. ♀.

Genus MIOTA Foerster

Miota Foerster, 1856. Hym. Stud., v. 2, pp. 131, 141. No species.
Type: *Miota glabra* Ashmead, 1890. First included species.

analis Ashmead. "Carolina."
Miota analis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 351, 352. ♀.

californica (Ashmead). Calif. (Santa Cruz Mts.).
Cinetus californicus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 360, 361. "♂"=♀.

canadensis Ashmead. Que. (Chelsea).
Miota Canadensis Ashmead, 1897. Canad. Ent. 29: 54. ♀.

coloradensis (Ashmead). Colo. (West Cliff).
Psilomma coloradense Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 11. ♀.

glabra Ashmead. Colo. (West Cliff).
Miota glabra Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 12. ♀.

monticola (Kieffer), n. comb. Calif. (Claremont).

Cinetus monticola Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 376. ♀.

nasuta (Provancher), n. comb. Ont. (Ottawa).
Cinetus nasutus Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 178. ♀.

pennsylvanica (Kieffer), n. comb. Pa. (Pittsburgh).
Cinetus pennsylvanicus Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 376. ♂.

pleuralis (Fouts), n. comb. N. Y. (McLean Bogs).
Cinetus pleuralis Fouts, 1925. Ent. Soc. Wash. Proc. 27: 151. ♀ ♂.

xanthocera (Kieffer), n. comb. Pa. (Jeannette).
Cinetus xanthocerus Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 376, 377. ♀.

Genus LEPTORHAPTUS Foerster

Leptorhaptus Foerster, 1856. Hym. Stud., v. 2, pp. 129, 137. No species.
Type: *Leptorhaptus conicus* Ashmead, 1893. Present desig.

ashmeadi Kieffer. Calif. (Claremont).
Leptorhaptus Ashmeadi Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 379. ♂.

bakeri Kieffer. Calif. (Claremont).
Leptorphaptus Bakeri Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 377, 378. ♂.

bisulcatus Kieffer. Pa. (Jeannette).
Leptorhaptus bisulcatus Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 377, 378. ♂.

clarimontis Kieffer. Calif. (Claremont).
Leptorhaptus Clarimontis Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 377, 379. ♀.

conicus Ashmead. Que., Ont., D. C., Va.
Leptorhaptus conicus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 350. ♂ ♀.

filicornis (Kieffer). Calif. (San Mateo).
Zelotypa filicornis Kieffer, 1906. Berlin. Ent. Ztschr. 50: 279. ♀.

flavicornis (Kieffer). "Gunnison."
Miota flavicornis Kieffer, 1906. Berlin. Ent. Ztschr. 50: 281. ♀.

longinervis Kieffer. Calif. (Claremont).
Leptorhaptus longinervis Kieffer, 1906. Berlin. Ent. Ztschr. 50: 281. ♀.

rufus Ashmead. Que., Ont., D. C., Va., Fla.
Leptorhaptus rufus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 350. ♂ ♀.

texanus (Ashmead). Tex.
Zelotypa texana Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 364, 365.

Genus SCORPIOTELEIA Ashmead

Scorpioteleia Ashmead, 1897. Canad. Ent. 29: 53.
Type: *Scorpioteleia mirabilis* Ashmead. Monob.

mirabilis Ashmead. Ont. (Kettle Isl.).
Scorpioteleia mirabilis Ashmead, 1897. Canad. Ent. 29: 53. ♀.

vera Fouts. Fla.
Scorpioteleia vera Fouts, 1927. Ent. Soc. Wash. Proc. 29: 173. ♀.

Genus STYLIDOLON Ashmead

Stylidolon Ashmead, 1897. Canad. Ent. 29: 53.
Type: *Stylidolon politum* Ashmead. Monob.
Stylidodon (!) Ashmead, 1902. N. Y. Ent. Soc. Jour. 10: 245.

politum Ashmead. Ont. (Ottawa).
Stylidolon politum Ashmead, 1897. Canad. Ent. 29: 54. ♀.

Genus ACLISTA Foerster

Aclista Foerster, 1856. Hym. Stud., v. 2, pp. 128, 131, 133, 134, 135. No species.
Type: *Acoretus scutellaris* Thomson, 1858. Present desig.

Anectata Foerster, 1856. Hym. Stud., v. 2, pp. 129, 136. No species. N. syn.
Type: *Anectata hirtifrons* Ashmead, 1887. First included species.
Pantoclis Foerster, 1856. Hym. Stud., v. 2, pp. 129, 136. No species. N. syn.
Type: *Pantoclis barycera* Foerster, 1861. First included species.
Xenotoma Foerster, 1856. Hym. Stud., v. 2. pp. 129, 137. No species. N. syn.
Type: *Xenotoma nigricoxis* Foerster, 1861. First included species.
Zelotypa Foerster, 1856. Hym. Stud., v. 2, pp. 130, 141. No species. N. syn.
Type: *Zelotypa coloradensis* Ashmead, 1890. First included species.
Belyta subg. *Acoretus* Haliday, 1857. Nat. Hist. Rev. 4: 169. N. syn.
Type: *Belyta rufopetiolata* Nees. Monob.

aculeata (Kieffer), n. comb. Pa. (Pittsburgh).
Pantoclis aculeatus Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 353, 357. ♀.

alaskensis (Ashmead), n. comb. Alaska (Virgin Bay).
Zelotypa alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 139. ♂.

analis (Ashmead), n. comb. Que., D. C.
Pantoclis analis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 367, 370. ♀.

antennalis (Fouts), n. comb. N. Y. (McLean Bogs Res.).
Xenotoma (*Xenotoma*) *antennalis* Fouts, 1926. Brooklyn Ent. Soc. Bul. 21: 152, 154. ♀.

ashmeadi Muesebeck and Walkley, n. name. Alaska (Muir Inlet).
Zelotypa borealis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 137, 138. ♀. Preocc. by Ashmead, 1893.

bakeri (Kieffer), n. comb. Pa. (Jeannette).
Pantoclis Bakeri Kieffer, 1909. Ann. Soc. Sci. Bruxelles 33: 353, 354. ♂.

bradleyi (Fouts), n. comb. Calif. (Cuyamaca Mts.).
Xenotoma bradleyi Fouts, 1927. Ent. Soc. Wash. Proc. 29: 172. ♀.

bruesi (Kieffer), n. comb. Pa., Wis.
Pantoclis Bruesi Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 353, 357. ♀.

brunnipes Muesebeck and Walkley, n. name. Colo.
Xenotoma coloradensis Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 368, 370. ♂. Preocc. by Ashmead, 1890, and Kieffer, 1908.

duplicata Muesebeck and Walkley, n. name. Calif. (Claremont).
Pantoclis californicus Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 352, 354. ♀. Preocc.
Pantoclis californiae Kieffer, 1916. Das Tierreich, Lief. 44, pp. 481, 504. N. name. Preocc. by Kieffer, 1910.

californica (Ashmead), n. comb. Calif. (Santa Cruz Mts.).
Pantoclis californica Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 367, 371. ♂ ♀.

canadensis (Ashmead), n. comb. Ont. (Ottawa).
Pantoclis Canadensis Ashmead, 1897. Canad. Ent. 29: 55. ♀.

castanea (Kieffer), n. comb. Pa. (Jeannette).
Xenotoma castanea Kieffer, 1908. Soc. Sci. Bruxelles. Ann. 32: 44. ♀.

clarimontis (Kieffer), n. comb. Calif. (Claremont).
Xenotoma Clarimontis Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 369, 374. ♂.

clinoneura (Kieffer), n. comb. Pa. (Jeannette).
Pantoclis clinoneurus Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 353, 355. ♂.

coloradensis (Ashmead), n. comb. Colo. (West Cliff).
Zelotypa coloradensis Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 12. "♀"= ♂.

cubitalis Muesebeck and Walkley, n. name. Wis. (Polk).
Xenotoma clinoneura Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 368, 372. ♂. Preocc. by Kieffer, 1909.

curvicauda (Fouts), n. comb., emend. N. Y. (McLean Res.).
Xenotoma (*Xenotoma*) *curvicaudis* Fouts, 1926. Brooklyn Ent. Soc. Bul. 21: 152, 155. ♀.

dubiosa (Kieffer), n. comb. Calif. (Claremont).
Pantoclis dubiosa Kieffer, 1906. Berlin. Ent. Ztschr. 50: 278. ♀.

flavinervis (Kieffer), n. comb. Pa. (Jeannette).
Xenotoma flavinervis Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 370, 375. ♂ ♀.

flavicrus (Kieffer), n. comb. Va. (Arlington).
Pantoclis flavipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 367, 370. ♀. Preocc.
Pantoclis flavicrus Kieffer, 1916. Das Tierreich, Lief. 44, pp. 480, 500. N. name.

flavipes (Ashmead), n. comb. Fla. (Ft. George Isl.).
Zelotypa flavipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 365. ♂.

flavoris Muesebeck and Walkley, n. name. Pa., Wis.
Xenotoma Bakeri Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 369, 373. ♀ ♂. Preocc. by Kieffer, 1909, pp. 353, 354.

floridana (Ashmead), n. comb. Fla. (Jacksonville).
Pantoclis floridana Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 367, 372. ♀.

foutsi Muesebeck and Walkley, n. name. Ont. (Gull Lake).
Anectata canadensis Fouts, 1924. Ent. Soc. Wash. Proc. 26: 165. ♀. Preocc. by Ashmead, 1897.

frontalis (Ashmead), n. comb. Del.
Belyta frontalis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 356. ♀.

fungicola (Crawford), n. comb. Va. (Clarendon).
Zelotypa fungicola Crawford, 1915. U. S. Natl. Mus. Proc. 48: 583. ♀ ♂.

fuscicornis (Ashmead), n. comb. Que. (Hull).
Zelotypa fuscicornis Ashmead, 1897. Canad. Ent. 29: 55. ♂.

fuscinervis (Kieffer), n. comb. Pa. (Jeannette).
Xenotoma fuscinervis Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 370, 375. ♀ ♂.

georgica (Ashmead), n. comb. Ga.
Anectata georgica Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 381, 382. ♂.

hirtifrons (Ashmead), n. comb. Ont. (Ottawa).
Anectata hirtifrons Ashmead, 1887. Canad. Ent. 19: 198. ♀.

inermis (Provancher), n. comb. Que., Ont.
Aneurynchus (!) *inermis* Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 176. ♀.

insularis (Ashmead), n. comb. Fla. (Ft. George Isl.).
Pantoclis insularis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 367, 369. ♀ (♂ misdet.).

integrifrons (Kieffer), n. comb. Pa. (Jeannette).
Pantoclis integrifrons Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 353, 356. ♀.

harringtoni (Kieffer), n. comb. Que. (Hull).
Pantoclis mandibularis Harrington, 1899. Roy. Soc. Canada Trans. (2) 5 (4): 198. ♀. Preocc.
Xenotoma (*Zelotypa*) *harringtoni* Kieffer, 1916. Das Tierreich, Lief. 44, pp. 544, 549. N. name.

kiefferi (Fouts), n. comb. Pa. (Jeannette).
Xenotoma xanthopus Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 368, 371. ♂. Preocc.
Xenotoma flavipes Kieffer, 1910. *In* Wytsman, Gen. Ins., fasc. 107, p. 33. N. name. Preocc.
Xenotoma (*Xenotoma*) *kiefferi* Fouts, 1926. Brooklyn Ent. Soc. Bul. 21 (4): 151, 153. N. name.

klagesi (Kieffer), n. comb. Pa. (Jeannette).
Pantoclis Klagesi Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 353, 358. ♂.

laeta (Kieffer), n. comb. Calif. (Claremont).
Xenotoma laeta Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 368, 371. ♂.

longicornis (Ashmead), n. comb. Va. (Arlington).
Zelotypa longicornis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 365. ♂.

macrodyctium (Ashmead), n. comb. Va., Colo.
Cinetus macrodyctium Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 360. ♂ ♀.

mandibularis (Ashmead), n. comb. Tex.
Xenotoma mandibularis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 363. ♀ (♂ misdet.).

megaplasta (Ashmead), n. comb. Kans. (Manhattan).
Pantoclis megaplasta Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 367, 368. ♀.
Pantoclis megaloplasta Schulz, 1906. Spolia Hym., p. 151. Emend.

melanocera (Kieffer), n. comb. Calif. (Claremont).
Xenotoma melanocera Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 368, 370. ♂.

mellicornis Muesebeck and Walkley, n. name. Va. (Arlington).
Cinetus ruficornis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 359, 360. ♀. Preocc. by Curtis, 1831.

mellipes (Say), n. comb. Que., Va., Ont., Ind.
Cinetus mellipes Say, 1836. Boston Jour. Nat. Hist. 1: 279. ♀.

jeannettensis Muesebeck and Walkley, n. name. Pa. (Jeannette).
Pantoclis microneurus Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 353, 355. ♂. Preocc. by Kieffer, 1909.

monilicornis (Ashmead), n. comb. Colo. (West Cliff).
Belyta monilicornis Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 12. ♀.

montana (Ashmead), n. comb. Colo., Calif.
Pantoclis montana Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 367, 368. ♂ ♀.

morula Muesebeck and Walkley, n. name. Colo.
Anectata coloradensis Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 42. ♀. Preocc. by Ashmead, 1890.

orthoneura (Kieffer), n. comb. Wis.
Pantoclis orthoneurus Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 353, 358. ♂.

paludicola Muesebeck and Walkley, n. name. N. Y. (McLean Bogs Res.).
Xenotoma (Xenotoma) palustra Fouts, 1926. Brooklyn Ent. Soc. Bul. 26: 151, 153. ♀. Preocc. by Fouts, 1926.

pacifica Muesebeck and Walkley, n. name. Calif.
Anectata californica Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 381. ♀. Preocc. by Ashmead, 1893.

parvicellula (Kieffer), n. comb. Calif. (Claremont).
Xenotoma parvicellula Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 368, 371. ♀.

picipes (Ashmead), n. comb. D. C.
Pantoclis picipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 367, 368. ♂.

pilosa (Fouts), n. comb. N. Y. (McLean Res.).
Xenotoma (Xenotoma) pilosa Fouts, 1926. Brooklyn Ent. Soc. Bul. 21: 150, 153. ♂.

polita (Ashmead), n. comb. Colo. (West Cliff).
Anectata polita Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 381, 382. ♂.

rufescens (Ashmead), n. comb. Tex.
Pantoclis rufescens Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 367, 372. ♀.

ruficauda (Ashmead), n. comb. Va. (Arlington).
Pantoclis ruficauda Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 367, 370. ♀.

ruficornis (Ashmead), n. comb. Va. (Arlington).
Zelotypa ruficornis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 365, 366. ♂.

rufopleuralis (Ashmead), n. comb. Que. (Hull).
Miota rufopleuralis Ashmead, 1897. Canad. Ent. 29: 54. ♀.

rufosignata (Kieffer), n. comb. Calif. (Claremont).
Xenotoma rufosignata Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 369, 373. ♂ ♀.

scutellata aptera (Kieffer), n. comb. Alaska.
Zelotypa scutellata Ashmead, var., 1902. Wash. Acad. Sci. Proc. 4: 137. ♀.
Pantoclis scutellata aptera Kieffer, 1916. Das Tierreich, Lief. 44, p. 498. ♀.

scutellata scutellata (Ashmead), n. comb. Alaska.
Zelotypa scutellata Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 137. ♀.

similis (Ashmead), n. comb. Que., N. H., Va.
Cinetus similis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 359, 361. ♀.

singularis (Kieffer), n. comb. Pa. (Jeannette).
Pantoclis singularis Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 352, 354. ♂.

subfusca (Kieffer), n. comb. Pa. (Jeannette).
Pantoclis subfuscus Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 353, 355. ♀.

subobtusa (Kieffer), n. comb. Pa. (Jeannette)..
Pantoclis subobtusus Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 353, 358. ♀.

trisulcata (Kieffer), n. comb. Pa. (Jeannette).
Xenotoma trisulcata Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 369, 372. ♀.

vagabunda Muesebeck and Walkley, n. name. Pa. (Jeannette).
Xenotoma Klagesi Kieffer, 1909. Soc. Sci. Bruxelles Ann. 33: 369, 374. ♀. Preocc. by Kieffer, 1909.

xanthopus (Ashmead), n. comb. Que., N. J.
Xenotoma Xanthopus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 363. ♀ ♂.

Genus ACROPIESTA Foerster

Acropiesta Foerster, 1856. Hym. Stud., v. 2, pp. 129, 135. No species.
Type: *Acropiesta flavicauda* Ashmead, 1893. Present desig.

flavicauda Ashmead. Ont. (Ottawa).
Acropiesta flavicauda Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 354. ♀.

pulchella Whittaker. B. C. (Hollyburn).
Acropiesta pulchella Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 75. ♀ ♂.

pulchella var. **melanocephala** Whittaker. B. C. (Hollyburn).
Acropiesta pulchella var. *melanocephala* Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 76. ♀ ♂.

pulchella var. **rufa** Whittaker. B. C. (Hollyburn).
Acropiesta pulchella var. *rufa* Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 76. ♀ ♂.

pulchella var. **rufifrons** Whittaker. B. C. (Hollyburn).
Acropiesta pulchella var. *rufifrons* Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 76. ♀ ♂.

semirufa Fouts. Md. (Glen Echo).
Acropiesta semirufa Fouts, 1924. Ent. Soc. Wash. Proc. 26: 165. ♀.

subaptera Ashmead. Mich. (Marquette).
Acropiesta subaptera Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 354. ♀.

Genus RHYNCHOPSILUS Kieffer

Rhynchopsilus Kieffer, 1908. *In* André, Spec. Hym. Eur. Alg., v. 10, pp. 360, 400.
Type: *Rhynchopsilus apertus* Kieffer. Desig. by Kieffer, 1910.

conicus (Ashmead). Va. (Arlington).
Aclista conica Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 375, 377. ♀.

Genus ATELOPSILUS Kieffer

Atelopsilus Kieffer, 1908. *In* André, Spec. Hym. Eur. Alg., v. 10, p. 360
Proposed as subgenus of *Rhynchopsilus*.
Type: *Pantolyta brunnea* Ashmead. Monob. and orig. desig.

brunneus (Ashmead). Va., Wash.
Pantolyta brunnea Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 383. ♀.

Genus PARATELOPSILUS Whittaker

Paratelopsilus Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 73.
Type: *Paratelopsilus canadensis* Whittaker. Monob. and orig. desig.

canadensis Whittaker. B. C. (Chilliwack).
Paratelopsilus canadensis Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 73. ♀.

Unrecognized Species of Diapriidae

Aneurynchus (!) *aneurus* Provancher, 1887. Addit. Corr. Ent. Faune Canada Hym., p. 176. ♀.
Psilus abdominalis Say, 1836. Boston Jour. Nat. Hist. 1: 283.
Psilus apicalis Say, 1836. Boston Jour. Nat. Hist. 1: 283.
Psilus brevicornis Say, 1824. *In* Keating, Narr. Long's 2nd. Exped., v. 2, p. 328.
Psilus colon Say, 1836. Boston Jour. Nat. Hist. 1: 284.
Psilus obtusus Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 280.

Family SCELIONIDAE

Subfamily TELENOMINAE

All known species of this subfamily develop as parasites in the eggs of other insects.

Genus ARADOPHAGUS Ashmead

Aradophagus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 138, 166.
Type: *Aradophagus fasciatus* Ashmead. Monob.

fasciatus Ashmead. Fla. (Jacksonville).
Aradophagus fasciatus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 166. ♂ ♀.

Genus TIPHODYTES Bradley

Limnodytes Marchal, 1900. Soc. Ent. France Ann. 69: 171, 174.
Type: *Limnodytes gerriphagus* Marchal. Monob. and orig. desig.
Tiphodytes Bradley, 1902. Canad. Ent. 34: 179. N. name.
Type: *Limnodytes gerriphagus* Marchal. Autob.

gerriphagus (Marchal). N. Y., Mich. Hosts: *Gerris* sp. eggs, *Trepobates* sp. eggs.
Limnodytes gerriphagus Marchal, 1900. Soc. Ent. France Ann. 69: 172, 175. ♂ ♀.
Biology: Martin, 1928. Ent. Amer. 8 (n. ser.) (3): 313.

Genus EUMICROSOMA Gahan

Eumicrosoma Gahan, 1913. U. S. Natl. Mus. Proc. 46: 442.
Type: *Eumicrosoma benefica* Gahan. Monob. and orig. desig.
Baeoneurella Dodd, 1914. Roy. Soc. So. Austral. Trans. 37: 124.
Type: *Baeoneura girault* Dodd. Orig. desig.

beneficum Gahan. Va., Kans., Okla.; British West Indies. Host: *Blissus leucopterus* (Say).
Eumicrosoma benefica Gahan, 1913. U. S. Natl. Mus. Proc. 46: 442. ♀ ♂.
Biology: McCulloch, 1915. Jour. Econ. Ent. 8: 248–260.

bicolor (Ashmead), n. comb. Va. (Arlington).
Baeoneura bicolor Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 235. ♀.

Genus PROTRIMORUS Kieffer

Protrimorus Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 146.
Type: *Trimorus americanus* Ashmead. Monob.

americanus (Ashmead). Va. (Arlington).
Trimorus americanus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 139. ♂.

Genus TELENOMUS Haliday

Taxonomy: Nixon, 1935. Roy. Ent. Soc. London, Trans. 83: 73–103.

Subgenus AHOLCUS Kieffer

Aholcus Kieffer, 1913. *In* Alluaud and Jeannell, Voy. Afr., v. 1, p. 4.
Type: ***Aholcus monticola*** Kieffer. Monob. and orig. desig.
Neotelenomus Dodd, 1913. Roy. Soc. So. Austral. Trans. 37: 171.
Type: ***Neotelenomus anthereae*** Dodd. Orig. desig.

dalmani (Ratzeburg). Europe; Ont., Maine, Mass., N. Y. Hosts: *Notolophus antiquus* (L.), *Hemerocampa leucostigma* (A. and S.).
Teleas Dalmanni Ratzeburg, 1844. Ichn. d. Forstins., v. 1, p. 185. ♂ ♀.
Telenomus Dalmani Mayr, 1879. Zool. Bot. Gesell. Wien, Verh. 29: 699, 708. Emend.
Telenomus devorator Mayr, 1879. Zool. Bot. Gesell. Wien, Verh. 29: 709.
Telenomus dalmanii Dalla Torre, 1898. Cat. Hym., v. 5, p. 514. Emend.
Telenomus Orgyiae Fitch, 1863 (1862). N. Y. State Agr. Soc. Trans. 22: 679. N. syn.
Telenomus fiskei Brues, 1910. Psyche 17: 106. ♀ ♂.

hemerocampae Wilcox. N. H., Conn., N. Y. Host: *Hemerocampa leucostigma* (A. and S.).
Telenomus hemerocampae Wilcox, 1920. Psyche 27: 78. ♀ ♂.

Subgenus TELENOMUS Haliday

Telenomus Haliday, 1833. Ent. Mag. 1: 271.
Type: ***Telenomus brachialis*** Haliday. Desig. by Ashmead, 1893.
Phanurus Thomson, 1860. Öfvers. Kongl. Vetensk. Akad. Forh. 17: 169, 172.
Type: ***Phanurus angustatus*** Thomson. Desig. by Ashmead, 1893.
Prophanurus Kieffer, 1912. *In* André, Spec. Hym. Eur. Alg., v. 11, pp. 9, 37.
Type: ***Teleas phalaenarum*** Nees. Desig. by Kieffer, 1926.
Liophanurus Kieffer, 1912. *In* André, Spec. Hym. Eur. Alg., v. 11, pp. 9, 61.
Type: ***Telenomus spilosomatis*** Ashmead. Orig. desig.
Paridris Brèthes, 1917. Zool. Aplicada An. 4: 27. N. syn.
Type: ***Paridris chilensis*** Brèthes, 1917. Monob.

alsophilae Viereck. N. S., N. J., N. C., Minn. Host: *Alsophila pometaria* (Harr.).
Telenomus alsophilae Viereck, 1924. Canad. Ent. 56: 111. ♀ ♂.

arzamae Riley. D. C. Host: *Arzama densa* F. Walker.
Telenomus arzamae Riley, 1893. *In* Ashmead, U. S. Natl. Mus. Bul. 45: 144, 157. ♀ ♂.

bakeri Kieffer. Calif. (San Mateo).
Telenomus Bakeri Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 261. ♂.

bifidus Riley. D. C., Mo. Host: *Hyphantria cunea* (Drury).
Telenomus bifidus Riley, 1887. U. S. Dept. Agr. Ann. Rpt. for 1886, p. 531. ♂ ♀.

californicus Ashmead. Calif., Idaho, Mass. Hosts: *Orgyia* sp.; *Hemerocampa pseudotsugata* McD.; *Stilpnotia salicis* (L.).
Telenomus californicus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 143, 150. ♀.

catalpae Muesebeck. Md., Va., Ark. Host: *Ceratomia catalpae* (Bdvl.).
Telenomus catalpae Muesebeck, 1935. Wash. Acad. Sci. Jour. 25: 279. ♀ ♂.

chrysopae Ashmead. D. C., Va., S. C., Fla., Kans. Host: *Chrysopa* sp.
Telenomus chrysopae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 145, 159. ♂.

clisiocampae Riley. N. B., Mass., N. Y., Minn., Nebr., N. Mex., Calif. Hosts: *Malacosoma fragilis* (Stretch); *M. disstria* Hbn.; *M. americanum* (F.).
Telenomus clisiocampae Riley, 1893. *In* Ashmead, U. S. Natl. Mus. Bul. 45: 145, 160. ♀ ♂.
Biology: Hodson, 1939. Ent. Soc. Amer. Ann. 32: 131–136.

coelodasidis Ashmead. Que., N. H., D. C., Idaho. Host: *Schizura leptinoides* Grote.
Telenomus coelodasidis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 145, 159. ♂.

coloradensis Crawford. Colo. (Colorado Springs). Host: *Hemerocampa oslari* Barnes.
Telenomus coloradensis Crawford, 1910 (1909). Ent. Soc. Wash. Proc. 11: 206. ♀ ♂.

cosmopeplae Gahan. Ill. (Urbana). Host: *Cosmopepla bimaculata* (Thom.).
Telenomus cosmopeplae Gahan, 1926. Ent. Soc. Wash. Proc. 28: 67. ♀ ♂.
Biology: Balduf, 1926. Jour. Econ. Ent. 19: 829–841.

dimmocki Ashmead. N. H., N. Y., Kans., Tex.
Telenomus dimmocki Ashmead, 1898. Ent. Soc. Wash. Proc. 4: 155. ♀ ♂.

dolichocerus (Ashmead). Fla. (Jacksonville).
Teleas dolichocerus Ashmead, 1887. Ent. Amer. 3: 100. ♂.

fimbriatus Kieffer. Wis.
Telenomus fimbriatus Kieffer, 1904. Ark. Zool. 1: 539. ♀.

emersoni (Girault). Del., Ark., Tex., Calif. Host: *Tabanus ?lineola* F.
Phanurus emersoni Girault, 1916. Canad. Ent. 48: 150. ♀ ♂.

flavipes (Ashmead). Va., Ind.
Phanurus flavipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 140, 141. ♀.

floridanus (Ashmead). Fla.
Phanurus floridanus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 140. ♀.

geometrae Ashmead. ?D. C. Host: *Alsophila pometaria* (Harr.).
Telenomus geometrae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 144, 157. ♂ ♀.

gnophaelae Ashmead. Calif. (Sisson). Host: *Gnophaela latipennis* (Bdvl.).
Telenomus gnophaelae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 143, 149. ♂ ♀.

goniopis Crawford. Mass., Md., Ark. Host: *Goniops chrysocoma* (O. S.).
Telenomus goniopis Crawford, 1913. U. S. Natl. Mus. Proc. 45: 243. ♀ ♂.

gossypiicola Ashmead. La. (Bougère).
Telenomus gossypiicola Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 144, 156. ♀.

gracilicornis Ashmead. Que., Ont.
Telenomus gracilicornis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 143, 149. ♀.

graptae Howard. Que., N. H., D. C. Hosts: *Polygonia interrogationis* (F.); *P. progne* Cram.; *Nymphalis antiopa* (L.); *Lycaena phlaeas hypophlaeas* (Bdvl.); *Polites themistocles* (Latr.); *P. taumas* (F.); *Vanessa atalanta* (L.)
Telenomus graptae Howard, 1889. *In* Scudder, Butterflies East. U. S., v. 3, p. 1896. ♀ ♂.

heliothidis Ashmead. La., Kans., Tex.; Cuba. Hosts: *Heliothis armigera* (Hbn.); *Laphygma frugiperda* (A. and S.).
Telenomus heliothidis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 144, 152. ♀.
Biology: Winburn and Painter, 1932. Kans. Ent. Soc. Jour. 5: 11–15.

heracleicola Brues. Wash. (Pullman). Host: Butterfly eggs.
Telenomus heracleicola Brues, 1906. Wis. Nat. Hist. Soc. Bul. (2) 4: 148. ♀ ♂.

hubbardi Ashmead. Fla. (Centerville). Host: Reduviidae.
Telenomus Hubbardi Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 143, 146. ♀.

hullensis Harrington. Que. (Hull).
Telenomus hullensis Harrington, 1899. Roy. Soc. Canada Trans. (ser. 2) 5 (4): 182. ♀.

ichthyurae Ashmead. D. C., Mich., Miss., Mo., Kans., Tex. Hosts: *Ichthyura inclusa* Hbn.; *Datana angusii* G. and R.; *D. integerrima* G. and R.
Telenomus ichthyurae Ashmead, 1893. U. S. Natl. Mus. 45: 144, 153. ♂ ♀.

infuscatipes (Ashmead). Fla. (Jacksonville).
Teleas infuscatipes Ashmead, 1887. Ent. Amer. 3: 100. ♂ ♀.

koebelei Ashmead. Calif. (Alameda).
Telenomus Koebelei Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 143, 147. ♀.

lavernae Ashmead. D. C. Host: *Psacaphora luciferella* (Clem.).
Telenomus lavernae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 144, 158. ♀.

longicornis Ashmead. N. Y. (Saranac Inn).
Telenomus longicornis Ashmead, 1901. N. Y. State Mus. Bul. 47: 587. ♂.

maculipennis Ashmead. Fla. (Jacksonville).
Telenomus maculipennis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 144, 155. ♀.

megacephalus Ashmead. St. Vincent; Fla., La.
Telenomus megacephalus Ashmead, 1894. Linn. Soc. London, Jour., Zool. 25: 203, 212. ♀.
Telenomus megalocephalus Schulz, 1906. Spolia Hym., p. 152. Emend.

minimus Ashmead. Va., Ill. Host: *Cirphis unipuncta* (Haw.).
Telenomus minimus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 144, 152. ♀.

nigriscapus Ashmead. Mich., Ill. Host: *Diacrisia virginica* (F.).
Telenomus nigriscapus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 143, 147. ♂ ♀.

noctuae Ashmead. D. C.
Telenomus noctuae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 143, 148. ♂ ♀.

opacus (Howard), n. comb. Calif. (Los Angeles).
Thoron opacus Howard, 1889. U. S. Dept. Agr. Insect Life 1: 268. ♂.

ovivorus (Ashmead). D. C., Ont., Ill., Kans., Idaho, Utah. Hosts: *Nysius ericae* (Schill.); *N. angustatus* Uhler.
Phanurus ovivorus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 140. ♀.

pamphilae Ashmead. Ont. (Ottawa). Host: *Atrytone ruricola* (Bdvl.).
Telenomus pamphilae Ashmead, 1899. *In* Harrington, Roy. Soc. Canada Trans. (ser. 2) 5 (4): 182. ♀.

pentatomus Kieffer. Nev. (Ormsby).
Telenomus pentatomus Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 261. ♂ ♀.

perplexus Girault. Ohio (Zanesville).
Telenomus perplexus Girault, 1906. Psyche 13: 65. ♀ ♂.

persimilis Ashmead. Va., Mich., Ohio, Ill., Tenn., La., Iowa, Ark.
Telenomus persimilis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 143, 150. ♀.

podisi Ashmead. Md., Fla., Mich., Ind., Tenn., Ala., Mo., Ark., La., Tex., Calif. Hosts: *Podisus maculiventris* (Say); *Solubea pugnax* (F.); *Chlorochroa sayi* Stål; *Euschistus impictiventris* Stål; *E. servus* (Say); *Cosmopepla bimaculata* (Thos.); *Trichopepla semivittata* (Say); *Peribalus limbolarius* Stål; *Thyanta custator* (F.).
Telenomus podisi Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 144, 158. ♀ ♂.
Economics: Douglas and Ingram, 1942. U. S. Dept. Agr. Cir. 632: 6.

pusillus Ashmead. Va. (Arlington).
Telenomus pusillus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 143, 146. ♀.

quaintancei Girault. Md., Ga. Host: *Sanninoidea exitiosa* (Say).
Telenomus quaintancei Girault, 1906. Psyche 13: 63. ♀ ♂.

rileyi Howard. Ill. (Fairbury). Host: *Asterocampa clyton* (Bdvl. and Lec.).
Telenomus rileyi Howard, 1889. *In* Scudder, Butterflies East. U. S., v. 3, p. 1898. "♂"=♀.

sphingis (Ashmead). Fla., Ohio, Tenn.; West Indies. Host: *Protoparce sexta* (Johan.).
Teleas sphingis Ashmead, 1887. U. S. Dept. Agr. Div. Ent. Bul. 14: 18. ♀ ♂.
Telenomus monilicornis Ashmead, 1894. Linn. Soc. London, Jour., Zool. 25: 203. ♂.

spilosomatis Ashmead. D. C., Va., Kans. Host: *Diacrisia virginica* (F.).
Telenomus spilosomatis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 144, 151. ♂ ♀.

tabanivorus (Ashmead). Mass., N. Y., Ga., Ill., Ark. Host: *Tabanus atratus* F.
Phanurus tabanivorus Ashmead, 1895. Ill. State Lab. Nat. Hist. Bul. 4: 274. ♀ ♂.

tetratomus Kieffer. Nev. (Ormsby).
Telenomus tetratomus Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 261. ♀.

texanus Brues. Tex. Host: In nest of *Eciton coecum* (Latr.).
Telenomus texanus Brues, 1902. Amer. Nat. 36: 372. ♀.

utahensis Ashmead. Calif., Alta., Idaho, Utah, Ariz., Colo., N. Mex., Tex.; Mexico. Hosts: *Chlorochroa ligata* (Say); *C. sayi* Stål; *Thyanta custator* (F.); *Euschistus servus* (Say).
Telenomus utahensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 143, 148. ♂ ♀.
Hadronotus mesillae Cockerell, 1897. Canad. Ent. 29: 25. ♂. N. syn.
Telenomus ashmeadi Morrill, 1907. Amer. Nat. 41: 419. ♀ ♂. N. syn.

Genus DISSOLCUS Ashmead

Dissolcus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 138, 164.
Type: *Dissolcus nigricornis* Ashmead. Monob. and orig. desig.

nigricornis Ashmead. Fla. (Jacksonville).
Dissolcus nigricornis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 165. ♀.

Genus TRISSOLCUS Ashmead

Trissolcus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 138, 161.
Type: *Telenomus brochymenae* Ashmead. Orig. desig.

brochymenae (Ashmead). Fla., Ark. Host: *Brochymena arborea* (Say).
Telenomus Crochymenae (!) Ashmead, 1881. Fla. Agr. 4: 193. ♀.
Telenomus brochymenae Ashmead, 1887. Ent. Amer. 3: 118.

edessae Fouts. La. Host: *Edessa bifida* (Say).
Trissolcus edessae Fouts, 1920. Ent. Soc. Wash. Proc. 22: 65. ♀.

euschisti (Ashmead). N. Y., Pa., Md., D. C., Va., Iowa, Kans., Okla., Tex., N. Mex., Utah, Calif. Hosts: *Euschistus servus* (Say); *Acrosternum hilare* (Say); *Perillus bioculatus* (F.).
Telenomus euschristus (!) Ashmead, 1888. Kans. Expt. Sta. Bul. 3: App. p. II. ♀.
Telenomus euschisti Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 161, 162.

murgantiae Ashmead. D. C., N. C., La., Calif.; Hawaii. Host: *Murgantia histrionica* (Hahn).
Trissolcus murgantiae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 162, 163. ♂ ♀.

podisi Ashmead. Conn., Pa., Ill., Mo., Calif. Hosts: *Podisus maculiventris* (Say); *Asterocampa* sp.
Trissolcus podisi Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 161, 162. ♀.

rufiscapus Ashmead. D. C.
Trissolcus rufiscapus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 162, 163. ♀.

rufitarsis Kieffer. Nev. (Ormsby).
Trissolcus rufitarsis Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 262. ♀.

thyantae Ashmead. N. Y., Md., Ala. Hosts: *Thyanta custator* (F.); *Nezara viridula* (L.); *Chlorochroa sayi* Stål.
Trissolcus thyantae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 162, 163. ♀.

Genus HADROPHANURUS Kieffer

Hadrophanurus Kieffer, 1926. Das Tierreich, Lief. 48, pp. 15, 130.
Type: ?*Telenomus pennsylvanicus* Ashmead. Monob.

pennsylvanicus (Ashmead). Pa.
?*Telenomus pennsylvanicus* Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 144, 160. ♀.

Subfamily BAEINAE

Genus TETRABAEUS Kieffer

Tetrabaeus Kieffer, 1912. *In* André, Spec. Hym. Eur. Alg., v. 11, p. 87.
Type: ***Aphanomerus americanus*** Brues. Monob. and orig. desig.

americanus (Brues). U. S. Host: *Crabro* sp. cocoons.
Aphanomerus americanus Brues, 1908. Wis. Nat. Hist. Soc. Bul. 6: 156. ♀.

Genus CERATOBAEUS Ashmead

Ceratobaeus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 167, 175.
Type: ***Ceratobaeus cornutus*** Ashmead. Orig. desig.

binotatus Ashmead. D. C., Ont., Ind.
Ceratobaeus binotatus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 176. ♀.

cornutus Ashmead. D. C.
Ceratobaeus cornutus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 176. ♀.

Genus BAEUS Haliday

Baeus Haliday, 1833. Ent. Mag. 1: 270.
Type: ***Baeus seminulum*** Haliday. Monob.
Hyperbaeus Foerster, 1856. Hym. Stud., v. 2, p. 144.
Type: ***Baeus seminulum*** Haliday. Autob.
Trichasius Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 209.
Type: ***Trichasius clavatus*** Provancher. Monob.

americanus Howard. Que., N. Y., Ont., Ohio.
Baeus americanus Howard, 1890. U. S. Dept. Agr. Insect Life 2: 270. ♀.

clavatus (Provancher). Ont. (Ottawa).
Trichasius clavatus Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 209. ♀.

latrodecti Dozier. West Indies; Md., S. C., Mo., La., Kans., Tex., Calif.; Hawaii.
Host: *Latrodectus mactans* (F.).
Baeus latrodecti Dozier, 1931. Ent. Soc. Wash. Proc. 33: 27. ♂ ♀.
Baeus californicus Pierce, 1939 (1938). So. Calif. Acad. Sci. Bul. 37: 101, 103. ♀ ♂. N. syn.
Biology: Pemberton and Rosa, 1940. Hawaii. Planters Rec. 44: 73–80.

minutus Ashmead. Ont. (Ottawa).
Baeus minutus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 178. ♀.

niger Ashmead. Ont., D. C.
Baeus niger Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 178. ♀.
Taxonomy: Harrington, 1901. Canad. Ent. 33: 331.

piceus Ashmead. Ont. (Ottawa).
Baeus piceus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 178, 179. ♀.

rotundiventris Gahan. Ohio (Middle Bass Isl.).
Baeus rotundiventris Gahan, 1924. U. S. Natl. Mus. Proc. 65: 20. ♀ ♂.

Genus ACOLOIDES Howard

Acoloides Howard, 1890. U. S. Dept. Agr. Insect Life 2: 269.
Type: ***Acoloides saitidis*** Howard. Monob.
Psilacolus Kieffer, 1908. Soc. Sci. Bruxelles Ann. 32: 179. N. syn.
Type: ***Acolus xanthogaster*** Ashmead. Desig. by Kieffer, 1926.

bicolor Ashmead. Ont. (Ottawa).
Acoloides bicolor Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 170, 172. ♀.

emertonii Howard. Mass.
Acoloides emertonii Howard, 1891. U. S. Dept. Agr. Insect Life 4: 202. ♀

floridensis Fouts. Fla. (Orlando). Host: Spider eggs.
Acoloides floridensis Fouts, 1927. Ent. Soc. Wash. Proc. 29: 179. ♀.

howardii Ashmead. D. C.
Acoloides Howardii Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 170, 171. ♀.

melleus Ashmead. Va. (Arlington).
Acoloides melleus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 170, 172. ♀.

saitidis Howard. Ont., Ind., Nebr. Host: *Habrocestum pulex* (Hentz).
Acoloides saitidis Howard, 1890. U. S. Dept. Agr. Insect Life 2: 270. ♀ ♂.

seminiger Ashmead. Ont. (Ottawa).
Acoloides seminiger Ashmead, 1893. U. S. Natl.Mus. Bul. 45: 170, 173. ♀.

subapterus Ashmead. Ont. (Ottawa).
Acoloides subapterus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 170, 173. ♀.

xanthogaster (Ashmead), n. comb. D. C.
Acolus xanthogaster Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 174. ♀.

zabriskiei (Ashmead), n. comb. N. Y. (Flatbush, L. I.).
Acolus Zabriskiei Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 175. ♂.

Genus THORON Haliday

Thoron Haliday, 1833. Ent. Mag. 1: 271.
Type: *Thoron metallicus* Haliday. Monob.

pallipes Ashmead. Fla. (Jacksonville).
Thoron pallipes Ashmead, 1887. Ent. Amer. 3: 99. ♀.

Subfamily TELEASINAE

Genus TELEAS Latreille

Teleas Latreille, 1809. Gen. Crust. Ins., v. 4, p. 32.
Type: *Scelio clavicornis* Latreille. Desig. by Latreille, 1810.

americana (Ashmead). Fla. (Jacksonville).
Prosacantha americana Ashmead, 1887. Ent. Amer. 3: 100. ♀.

canadensis Harrington. Que. (Hull).
Teleas canadensis Harrington, 1899. Canad. Ent. 31: 78. ♂.

coxalis Ashmead. Va. (Arlington).
Teleas coxalis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 199. ♀.

lineaticeps Ashmead. D. C., Va.
Teleas lineaticeps Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 198, 199. ♂.

mandibularis (Ashmead). Fla. (Jacksonville).
Prosacantha mandibularis Ashmead, 1887. Ent. Amer. 3: 117. ♀.

pallidipes Ashmead. N. J.
Teleas pallidipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 199, 200. ♂.

Genus PARAGRYON Kieffer

Paragryon Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 189, 199.
Type: *Paragryon pedestris* Kieffer. Desig. by Kieffer, 1926.

borealis (Ashmead). Que., Ont.
Acolus borealis Ashmead, 1888. Canad. Ent. 20: 50. ♀.

canadensis (Ashmead). Ont. (Ottawa).
Acolus canadensis Ashmead, 1888. Canad. Ent. 20: 50. ♀.

columbianus (Ashmead). Md., D. C., Ont.
Gryon columbianus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 206, 208. ♀.

flavipes (Ashmead). Que., Ont.
Gryon flavipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 206, 208. ♀.

obscuripes (Ashmead). Ont., D. C.
Hoplogryon obscuripes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 202, 204. ♀.

Genus TRIMORUS Foerster

Trimorus Foerster, 1856. Hym. Stud., v. 2, pp. 101, 104.
Type: ***Gryon nanno*** Walker. Desig. by Ashmead, 1893.
Hoplogryon Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 181, 200.
Type: ***Prosacantha minutissimus*** Ashmead. Desig. by Ashmead, 1893.
Allogryon Kieffer, 1910. *In* Wytsman, Gen. Ins., fasc. 80B, p. 95. Proposed as subg. of *Hoplogryon* Ashmead.
Type: ***Prosacantha caraborum*** Riley. Present desig.
Hemimorus Cameron, 1912. Soc. Ent. 27: 77.
Type: ***Hemimorus clavicornis*** Cameron, 1912. Monob.
Taxonomy: Fouts, 1948. U. S. Natl. Mus. Proc. 98: 91–148.

Apparently the species of this genus are very numerous, but most of the described forms are known only from single specimens. Practically nothing is known about the biology and host relations of the group.

amabilis Fouts. B. C. (Chilliwack).
Trimorus amabilis Fouts, 1948. U. S. Natl. Mus. Proc. 98: 102, 146. ♀.

annulicornis (Ashmead). D. C., Miss.
Prosacantha annulicornis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 186, 188. ♀.

apterus Fouts. D. C.
Trimorus apterus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 97, 102. ♀.

bethunei (Sanders). Ill., Iowa, La. Host: In nest of *Formica subrufa* Roger.
Hoplogryon Bethunei Sanders, 1910. Canad. Ent. 42: 15. ♂.

bilineatus (Ashmead). D. C.
Prosacantha bilineata Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 194. ♀.

brevicarinatus Fouts. Md., D. C., Tex.
Trimorus brevicarinatus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 101, 134. ♀.

bruesi (Kieffer). Ont., Conn., N. Y.
Prosacantha brachyptera Ashmead, 1888. Canad. Ent. 20: 50. ♀. Preocc.
Hoplogryon bruesi Kieffer, 1910. *In* Wytsman, Gen. Ins., fasc. 80B, p. 96. N. name.
Hoplogryon dolichopterus Kieffer, 1926. Das Tierreich, Lief. 48, pp. 189, 216. N. name.

brunneipes Fouts. N. Y. (McLean Bogs).
Trimorus brunneipes Fouts, 1948. U. S. Natl. Mus. Proc. 98: 100, 125. ♀.

californicus (Ashmead). Calif. (Santa Cruz Mts.).
Prosacantha californicus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 186, 190. ♀.

caraborum (Riley). Que., D. C., Va. Host: *Chlaenius impunctifrons* Say.
Prosacantha caraborum Riley, 1893. *In* Ashmead, U. S. Natl. Mus. Bul. 45: 186, 191. ♀ ♂.

claripennis (Ashmead). Va.
Hoplogryon claripennis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 201, 203. ♀.

clarus Fouts. B. C. (Hollyburn).
Trimorus clarus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 100, 131. ♀.

columbianus (Ashmead). D. C.
Prosacantha columbiana Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 186, 194. ♀.

concinnus Fouts. N. Y. (Suffern).
Hoplogryon coxalis Fouts, 1925. Ent. Soc. Wash. Proc. 27: 103. ♀. Preocc.
Trimorus concinnus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 101, 134. N. name.

crassellus Fouts. Md., D. C.
Gryon columbianus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 206, 208. ♀. Preocc.
Trimorus crassellus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 98, 105. N. name.

crassiceps Fouts. B. C. (Hollyburn).
Trimorus crassiceps Fouts, 1948. U. S. Natl. Mus. Proc. 98: 98, 107. ♀.

crassicornis (Kieffer). Calif., Nev.
Hoplogryon crassicornis Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 262. ♂ ♀.

crosbyi Fouts. N. Y. (Wolcott).
Trimorus crosbyi Fouts, 1948. U. S. Natl. Mus. Proc. 98: 98, 114. ♀.

distinctus Fouts. Tex. (Brownwood).
Trimorus distinctus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 99, 115. ♂.

erythrogaster Fouts. Va. (Arlington).
Trimorus erythrogaster Fouts, 1948. U. S. Natl. Mus. Proc. 98: 98, 113. ♂.

erythropus (Ashmead). D. C.
Prosacantha erythropus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 186, 195. ♀.

exilis Fouts. B. C. (Chilliwack).
Trimorus exilis Fouts, 1948. U. S. Natl. Mus. Proc. 98: 98, 107. ♀.

finitimus Fouts. B. C. (Chilliwack).
Trimorus finitimus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 98, 110. ♀.

flavicoxa (Ashmead). Va.
Prosacantha flavicoxa Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 187, 196. ♀.

flavocinctus Fouts. N. Y. (McLean Bogs).
Trimorus flavocinctus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 100, 131. ♀.

flavopetiolatus (Ashmead), n. comb. D. C., Va.
Prosacantha flavopetiolata Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 187, 196. ♂ ♀.

formosus Fouts. B. C. (Chilliwack).
Trimorus formosus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 97, 103. ♀.

fumipennis (Ashmead). D. C., Fla.
Gryon fumipennis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 206. ♀.

fuscipennis (Ashmead). Fla. (Jacksonville).
Prosacantha fuscipennis Ashmead, 1887. Ent. Amer. 3: 117. ♂.

gracilicornis (Ashmead). "Carolina."
Prosacantha gracilicornis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 187, 193. ♀.

grandis (Brues). N. Y., Md.
Hoplogryon grandis Brues, 1907. Wis. Soc. Nat. Hist. Bul. 5: 102. ♀.

improcerus Fouts. B. C. (Chilliwack).
Trimorus improcerus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 99, 119. ♀.

jucundus Fouts. Md. (Glen Echo).
Trimorus jucundus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 100, 127. ♀.

kansasensis (Gahan). Kans. (Manhattan).
Hoplogryon kansasensis Gahan, 1912. Ent. Soc. Wash. Proc. 14: 7. ♀.

leonardi Fouts. N. Y. (McLean Bogs).
Trimorus leonardi Fouts, 1948. U. S. Natl. Mus. Proc. 98: 100, 128. ♀.

lepidus Fouts. B. C. (Hollyburn).
Trimorus lepidus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 102, 147. ♀.

linellii (Ashmead). N. Y. (Long Isl.).
Prosacantha Linellii Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 187, 195. ♀.

lionotus Fouts. B. C. (Hollyburn).
Trimorus lionotus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 99, 118. ♂.

longipennis (Ashmead). Ont., Md., D. C., Va.
Prosacantha laevifrons Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 186, 190. ♀. Preocc.
Hoplogryon longipennis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 201, 202. ♀.

Hoplogryon pteridis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 201, 203. ♀.
Prosacantha levis Dalla Torre, 1898. Cat. Hym., v. 5, p. 507. N. name for *laevifrons*.

macrocerus (Ashmead). Fla. (Jacksonville).
Prosacantha macrocera Ashmead, 1887. Ent. Amer. 3: 117. ♂ ♀.

marylandicus (Ashmead). Md., D. C.
Prosacantha marylandica Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 186, 193. ♂ ♀.

melanopus (Ashmead). Ont., B. C.
Prosacantha melanopus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 186, 189. ♀.

minor Fouts. Va. (Rosslyn).
Trimorus minor Fouts, 1948. U. S. Natl. Mus. Proc. 98: 101, 142. ♀.

minutissimus (Ashmead). Fla. (Jacksonville).
Prosacantha minutissima Ashmead, 1887. Ent. Amer. 3: 117. ♀.

minutus Fouts. Md. (Glen Echo).
Trimorus minutus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 99, 117. ♀.

monticola Fouts. Pa. (Mount Holly Springs).
Trimorus monticola Fouts, 1948. U. S. Natl. Mus. Proc. 98: 101, 140. ♀.

nanus (Ashmead). Utah (Utah Lake).
Prosacantha nana Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 186, 191. ♀.

nigricoxa Fouts. B. C. (Chilliwack).
Trimorus nigricoxa Fouts, 1948. U. S. Natl. Mus. Proc. 98: 101, 137. ♀.

nigripes (Ashmead). Oreg.
Prosacantha nigripes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 186, 188. ♂ ♀.

nigrobrunneus Fouts. Md. (Sudley).
Trimorus nigrobrunneus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 102, 144. ♀.

nitidus Fouts. B. C.
Trimorus nitidus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 98, 106. ♀.

notabilis Fouts. B. C. (Chilliwack).
Trimorus notabilis Fouts, 1948. U. S. Natl. Mus. Proc. 98: 99, 120. ♀.

obscurus Fouts. B. C. (Chilliwack).
Trimorus obscurus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 101, 139. ♀.

pallidipes (Ashmead). Va. (Arlington).
Xenomerus pallidipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 184. ♀.

pennsylvanicus (Ashmead). "Penna."
Prosacantha pennsylvanica Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 186, 189. ♀.

percurrens Fouts. B. C. (Hollyburn).
Trimorus percurrens Fouts, 1948. U. S. Natl. Mus. Proc. 98: 99, 116. ♂.

perspicuus Fouts. B. C. (Hollyburn).
Trimorus perspicuus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 102, 145. ♀.

petiolatus Fouts. N. Y. (Cinnamon Lake).
Trimorus petiolatus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 100, 130. ♀.

pictus Fouts. B. C. (Hollyburn).
Trimorus pictus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 99, 119. ♀.

pleuralis (Ashmead). Pa., D. C.
Prosacantha pleuralis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 186, 195. ♀.

pulchellus Fouts. B. C. (Chilliwack).
Trimorus pulchellus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 101, 140. ♀.

pulchricornis Fouts. Md. (Glen Echo).
Trimorus pulchricornis Fouts, 1948. U. S. Natl. Mus. Proc. 98: 98, 105. ♀.

punctiger Fouts. Md. (Glen Echo).
Trimorus punctiger Fouts, 1948. U. S. Natl. Mus. Proc. 98: 101, 135. ♀.

punctithorax Fouts. B. C. (Chilliwack).
Trimorus punctithorax Fouts, 1948. U. S. Natl. Mus. Proc. 98: 98, 108. ♀.

punctiventris (Ashmead). D. C., Va.
Prosacantha punctiventris Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 186, 192. ♀.

pusillus (Ashmead). Fla. (Jacksonville).
Prosacantha pusilla Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 186, 192. ♀.

repentinus Fouts. Md. (Cabin John).
Trimorus repentinus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 99, 124. ♀.

reticulatus Fouts. Md. (Glen Echo).
Trimorus reticulatus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 101, 143. ♀.

robustus Fouts. B. C. (Chilliwack).
Trimorus robustus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 98, 110. ♀.

rubripes Fouts. Md. (Glen Echo).
Trimorus rubripes var. *rubripes* Fouts, 1948. U. S. Natl. Mus. Proc. 98: 100, 122. ♂.

rubripes var. **rufocoxalis** Fouts. Md. (Glen Echo).
Trimorus rubripes var. *rufocoxalis* Fouts, 1948. U. S. Natl. Mus. Proc. 98: 99, 123. ♂.

rufocinctus Fouts. Md. (Glen Echo).
Trimorus rufocinctus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 100, 130. ♀.

rufosignatus (Kieffer). N. Y., D. C.
Hoplogryon rufipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 202, 205. ♀. Preocc.
Hoplogryon rufosignatus Kieffer, 1910. *In* Wytsman, Gen. Ins., fasc. 80B, p. 97. N. name.
Hoplogryon ashmeadianus Kieffer, 1926. Das Tierreich, Lief. 48, p. 215. N. name.

schwarzii (Ashmead). D. C.
Prosacantha Schwarzii Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 186, 192. ♀.

sculpturatus Fouts. Md. (Glen Echo).
Trimorus sculpturatus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 100, 129. ♀.

silvaticus Fouts. B. C. (Hollyburn).
Trimorus silvaticus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 101, 132. ♀.

solitarius (Ashmead). Ont. (Ottawa).
Hoplogryon solitarius Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 202, 205. ♂.

striatifrons (Ashmead). Fla. (Jacksonville).
Prosacantha striatifrons Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 187, 188. ♂.

striativentris (Ashmead). D. C.
Prosacantha striativentris Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 187, 197. ♂.

striopunctatus Fouts. Md., Pa.
Trimorus striopunctatus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 98, 111. ♀.

subapterus Fouts. B. C. (Chilliwack).
Trimorus subapterus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 98, 109. ♀.

sulcatus (Kieffer). Tex.
Hoplogryon sulcatus Kieffer, 1904. Arkiv. för Zool. 1: 538. ♂.

tenuicornis (Kieffer). Wash., Calif.
Hoplogryon tenuicornis Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 263. ♂.

texanus Fouts. Tex. (Brownwood).
Trimorus texanus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 101, 141. ♀.

tripartitus (Kieffer). Pa. (Jeannette).
Hoplogryon tripartitum Kieffer, 1908. Soc. Sci. Bruxelles Ann. 32: 33. ♂.

utahensis (Ashmead). Utah (Park City).
Prosacantha utahensis Ashmead, 1893. U. S. Natl. Mus. Proc. 45: 186, 189. ♀.

varius Fouts. Md. (Cabin John).
Trimorus varius Fouts, 1948. U. S. Natl. Mus. Proc. 98: 99, 120. ♂.

vinctus Fouts. Iowa (Ames).
Hoplogryon similis Fouts, 1924. Ent. Soc. Wash. Proc. 26: 160. ♀. Preocc.
Trimorus vinctus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 101, 140. N. name.

virginiensis (Kieffer). Va.
Hoplogryon tibialis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 201, 203. ♀. Preocc.
Hoplogryon virginiensis Kieffer, 1910. *In* Wytsman, Gen. Ins., fasc. 80B, p. 98. N. name.

whittakeri Fouts. B. C. (Chilliwack).
Trimorus whittakeri Fouts, 1948. U. S. Natl. Mus. Proc. 98: 101, 138. ♀.

xanthognathus (Ashmead). Fla. (Jacksonville).
Prosacantha xanthognatha Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 187, 197. ♂.

xanthopus Fouts. Md. (Glen Echo).
Trimorus xanthopus Fouts, 1948. U. S. Natl. Mus. Proc. 98: 100, 126. ♀.

Genus TRISACANTHA Ashmead

Trisacantha Ashmead, 1887. Ent. Amer. 3: 117.
Type: *Trisacantha americana* Ashmead. Monob.
Pentacantha Ashmead, 1888. Canad. Ent. 20: 51. Preocc.
Type: *Pentacantha canadensis* Ashmead. Monob.
Trissacantha Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 180, 182. Emend.
Propentacantha Kieffer, 1926. Das Tierreich, Lief. 48, pp. 173, 241. N. name.
Type: *Pentacantha canadensis* Ashmead. Autob.

americana Ashmead. Fla.
Trisacantha americana Ashmead, 1887. Ent. Amer. 3: 117. ♂.

canadensis (Ashmead). Ont., Kans.
Pentacantha Canadensis Ashmead, 1888. Canad. Ent. 20: 51. ♀.

longicornis (Kieffer). Tex.
Pentacantha longicornis Kieffer, 1904. Arkiv for Zool. 1: 536. ♂.

rufitarsis (Kieffer), n. comb. Calif. (Santa Clara).
Pentacantha rufitarsis Kieffer, 1906 (1905). Berlin. Ent. Ztschr. 50: 263. ♀.

rugosa Ashmead. Va. (Arlington).
Trissacantha rugosa Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 183. ♂.

striaticeps Kieffer. Tex.
Trissacantha striaticeps Kieffer, 1904. Arkiv. för Zool. 1: 535. ♂.

Subfamily SCELIONINAE

Genus SPARASION Latreille

Sparasion Latreille, 1802. Hist. Crust. Ins., v. 3, p. 316.
Type: *Sparasion cephalotes* Latreille. Monob.
Oxyurus Lamarck, 1817. Hist. Nat. Anim. sans Vert., v. 4, p. 128.
Type: *Sparasion frontalis* Latreille. Present desig.

The only species for which an authentic host record is available is parasitic in the eggs of the Mormon cricket.

bakeri Kieffer. Colo.
Sparasion Bakeri Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 26, 27. ♂ ♀.

famelicum Say. Fla., Ind.
Sparasion famelicus Say, 1836. Boston Jour. Nat. Hist. 1: 276.

femorale Kieffer. Nev. (Ormsby).
Sparasion femorale Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 26. ♂.

graenicheri Brues. Wis. (Milwaukee).
Sparaison (!) *graenicheri* Brues, 1906. Wis. Nat. Hist. Soc. Bul. 4: 149. ♀.

gregarium Brues. Md., Va.
Sparaison (!) *gregarium* Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 154. ♀.

humile Kieffer. Pa. (Jeannette).
Sparasion humile Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 26, 27. ♂.

nigrum Ashmead. Pa., Md., Va.
Sparasion nigrum Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 238, 239. ♂ ♀.

pacificum Ashmead. Wash., Calif.
Sparasion pacificum Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 238, 239. ♂.

pilosum Ashmead. Nev., Wash., Mont., Wyo., Utah. Host: *Anabrus simplex* Hald.
Sparasion pilosum Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 238. ♂ ♀.
Biology: Mills, 1942. Mont. Agr. Expt. Sta. Bul. 408: 11–13.

Genus SCELIO Latreille

Scelio Latreille, 1805. Hist. Nat. Crust. Ins., v. 13, p. 226.
Type: *Scelio rugosulus* Latreille. Desig. by Latreille, 1810.
Scelionus Rafinesque, 1815. Analyse, p. 125. Emend.
Serlion Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 80. Error for *Scelio* Latr. Used only in combination with a specific name in the encyrtid genus *Homalotylus*. See *H. terminalis*, p. 486.
Aleria Marshall, 1874. Ent. Monthly Mag. 10: 208.
Type: *Aleria flavibarbis* Marshall. Monob.
Caloptenobia Riley, 1878 (1877). U. S. Ent. Comm. Ann. Rpt. 1: 306.
Type: *Caloptenobia ovivora* Riley. Monob.
Discelio Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 116, 124.
Type: *Scelio thoracicus* Ashmead. Desig. by Kieffer, 1926.
Dichacantha Kieffer, 1908. Soc. Sci. Bruxelles Ann. 32: 118, 147.
Type: *Trimorus luteus* Cameron. Monob. and orig. desig.

The species of this genus are parasitic in the eggs of grasshoppers.

albipennis Kieffer. Nev. (Ormsby).
Scelio albipennis Kieffer, 1906. Berlin. Ent. Ztschr. 50: 270. ♂.

ashmeadi Viereck. N. Mex. (Beulah).
Scelio ashmeadi Viereck, 1903. Amer. Ent. Soc. Trans. 29: 74. ♂.

bisulcus (Ashmead), n. comb. Tex., Kans., S. Dak., Ill., S. C., Ariz.
?Sceliomorpha bisulca Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 240. ♀.
Scelio bisulcatus Kieffer, 1904. Arkiv för Zool. 1: 531. ♀. N. syn.
Scelio monticola Brues, 1906. *In* Viereck, Amer. Ent. Soc. Trans. 32: 184. ♀. N. syn.

calopteni Riley. N. H., D. C., Mich., Ind., Ill., La., Iowa, N. Dak., S. Dak., Nebr., Kans., Mont. Hosts: *Melanoplus mexicanus mexicanus* (Sauss.); *M. bivittatus* (Say); *M.* spp.
Scelio calopteni Riley, 1893. *In* Ashmead, U. S. Natl. Mus. Bul. 45: 242, 246. ♀.

floridanus Ashmead. Fla., Tex.
Scelio floridanus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 242, 247. ♀.

fuscipennis Ashmead. Fla.; Mexico, Guatemala. Host: *Romalea micropterus* (Beauv.).
Scelio fuscipennis Ashmead, 1887. Ent. Amer. 3: 119. ♀.

hyalinipennis Ashmead. Fla. (Jacksonville).
Scelio hyalinipennis Ashmead, 1887. Ent. Amer. 3: 119. ♂ ♀.

luggeri Riley. Minn. (Otter Tail Co.). Host: *Melanoplus* sp.
Scelio Luggeri Riley, 1893. *In* Ashmead, U. S. Natl. Mus. Bul. 45: 242, 246. ♀.

melleipes Kieffer. Colo.
Scelio melleipes Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 29, 30. ♀.

oedipodae Ashmead. Va. (Arlington). Host: "*Oedipoda* sp."
Scelio oedipodae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 242, 245. ♂ ♀.

opacus (Provancher). Que., Ont.
Acerota opaca Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 184.

ovivorus (Riley). Mass., Canada. Host: *Dissosteira carolina* (L.).
Caloptenobia ovivora Riley, 1878 (1877). U. S. Ent. Comm. Ann. Rpt. 1: 306.

pallidicornis Ashmead. Fla. (Jacksonville).
Scelio pallidicornis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 242, 244. ♂.

pallidipes Ashmead. Fla. (Jacksonville).
Scelio pallidipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 242, 244. ♂.

rufiventris Ashmead. Fla. (Ft. George).
Scelio rufiventris Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 242, 245. ♀.

striaticollis Brues. Tex. (Galveston).
Scelio striaticollis Brues, 1906. *In* Viereck, Amer. Ent. Soc. Trans. 32: 222. ♀.

striatigena Kieffer. Tex.
Scelio striatigena Kieffer, 1904. Arkiv för Zool. **1**: 530. ♂.

striativentris Kieffer. Ont. (Toronto).
Scelio striativentris Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 29, 33. ♂.

venatus Brues. Ariz. (Bill Williams Fork).
Scelio venata Brues, 1906. *In* Viereck, Amer. Ent. Soc. Trans. 32: 228. ♀.

Genus HOPLOTELEIA Ashmead

Hoploteleia Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 227.
Type: *Baryconus floridanus* Ashmead. Monob. and orig. desig.
Rhacoteleia Cameron, 1905. Spolia Zeylanica 3: 72.
Type: *Rhacoteleia pilosa* Cameron. Monob.
Apegusoneura Cameron, 1912. Soc. Ent. 27: 69.
Type: *Apegusoneura striolatus* Cameron. Present desig.

floridana (Ashmead). Fla., Va., Miss., La.
Baryconus floridanus Ashmead, 1887. Ent. Amer. 3: 118. ♂.

noveboracensis Brues. N. Y. (N. Y. City).
Hoploteleia noveboracensis Brues, 1908. Wis. Nat. Hist. Soc. Bul. 6: 49. ♂.

Genus OPISTHACANTHA Ashmead

Opisthacantha Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 221.
Type: *Opisthacantha mellipes* Ashmead. Monob. and orig. desig.
Raia Ashmead MS, 1893. U. S. Natl. Mus. Bul. 45: 221.
Type: *Opisthacantha mellipes* Ashmead. Autob.

mellipes Ashmead. D. C.
Opisthacantha mellipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 221. ♂ ♀.

Genus OETHECOCTONUS Ashmead

Cacus Riley, 1893. *In* Ashmead, U. S. Natl. Mus. Bul. 45: 223. Preocc.
Type: *Cacus oecanthi* Riley. Monob. and desig. by Ashmead, 1893.
Oethecoctonus Ashmead, 1900. Canad. Ent. 32: 368. N. name.
Type: *Cacus oecanthi* Riley. Autob.
Cacellus Ashmead, 1903. N. Y. Ent. Soc. Jour. 11: 92. N. name. Unnecessarily proposed.
Type: *Cacus oecanthi* Riley. Autob.

oecanthi (Riley). N. Y., Pa., Va., Ind., La., Calif. Hosts: *Oecanthus niveus* (Deg.); *O. nigricornis quadripunctatus* Beut.
Cacus oecanthi Riley, 1893. *In* Ashmead, U. S. Natl. Mus. Bul. 45: 224. ♂ ♀.

Genus PARIDRIS Kieffer

Paridris Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 122.
Type: ***Idris laeviceps*** Ashmead. Desig. by Kieffer, 1926.

brevipennis Fouts. Ill., La., S. Dak. Host: *Acheta assimilis* F.
Paridris brevipennis Fouts, 1920. Ent. Soc. Wash. Proc. 22: 66. ♂ ♀.
Economics: Severin, 1935. S. Dak. Agr. Expt. Sta. Bul. 295: 44.

laeviceps (Ashmead). Va. (Arlington).
Idris laeviceps Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 235. ♂.
Idris leviceps Dalla Torre, 1898. Cat. Hym., v. 5, p. 497. Emend.

nigricornis (Brues). Conn. (Colebrook). Host: In nest of *Myrmica* sp. and *Leptothorax* sp. (mixed).
Idris nigricornis Brues, 1903. Amer. Ent. Soc. Trans. 29: 125. ♂.

Genus ANTERIS Foerster

Anteris Foerster, 1856. Hym. Stud., v. 2, pp. 101, 103. No species.
Type: ***Anteris simulans*** Kieffer, 1908. First included species fitting generic description.

reticulata Fouts. D. C.
Anteris reticulata Fouts, 1926. Ent. Soc. Wash. Proc. 28: 178. ♀ ♂.

Genus PROSANTERIS Kieffer

Prosanteris Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 121, 136.
Type: ***Anteris nigriceps*** Ashmead. Desig. by Kieffer, 1910.

nigriceps (Ashmead). Va., Fla., Ark.
Anteris nigriceps Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 225, 226. ♂ ♀.

virginiensis (Ashmead). Va.
Anteris virginiensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 225. ♂.

Genus HADRONOTUS Foerster

Hadronotus Foerster, 1856. Hym. Stud., v. 2, pp. 101, 105. No species.
Type: ***Hadronotus exculptus*** Foerster, 1861. First valid species included.
Telenomoides Dodd, 1913. Roy. Soc. So. Austral. Trans. 37: 168.
Type: ***Telenomoides flavipes*** Dodd. Orig. desig.
Hadronotellus Kieffer, 1917. Ent. Meddel. 11: 341.
Type: ***Hadronotellus pedester*** Kieffer. Monob. and orig. desig.

The known species seem to be parastic in the eggs of Heteroptera.

ajax Girault. N. C., Ohio, Ill., Tenn., Ala., Mo., La., Ariz. Host: *Anasa tristis* (Deg.)
Hadronotus ajax Girault, 1920. U. S. Natl. Mus. Proc. 58: 181. ♀ ♂.
Biology: Schell, 1943. Ent. Soc. Amer. Ann. 36: 625–635.

anasae (Ashmead). Fla. Hosts: *Anasa tristis* (Deg.); *Euthochtha galeator* (F.).
Telenomus anasae Ashmead, 1887. U. S. Dept. Agr. Div. Ent. Bul. 14: 23. ♂ ♀.

atriscapus Gahan. Tex. Hosts: *Narnia pallidicornis* Stål; *N. femorata* Stål; *Leptoglossus phyllopus* (L.).
Hadronotus atriscapus Gahan, 1927. U. S. Natl. Mus. Proc. 71: 37. ♀ ♂.

brevipennis Harrington. Que.(Hull).
Hadronotus brevipennis Harrington, 1899. Roy. Soc. Canada Trans. (ser. 2) 5 (4): 188. ♀ ♂.

carinatifrons Ashmead. West Indies; Tex., Fla. Hosts: *Anasa tristis* (Deg.); *Leptoglossus gonagra* (F.).
Hadronotus carinatifrons Ashmead, 1894. Linn. Soc. London, Jour., Zool. 25: 229, 230. ♀.

floridanus Ashmead. Fla. Host: *Acanthocephala femoratus* (F.).
Hadronotus floridanus Ashmead, 1887. Ent. Amer. 3: 118. ♀.

largi Ashmead. Calif. (Los Angeles). Host: *Largus succinctus* (L.).
Hadronotus largi Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 230, 231. ♂ ♀.

leptocorisae Howard. Fla. (Crescent City). Host: *Zelus bilobus* Say.
Hadronotus leptocorisae Howard, 1885. *In* Hubbard, Orange Ins., App., p. 215. ♀ ♂.

myrmecophilus Ashmead. Va., La. Host: *Coriscus eurinus* (Say).
Hadronotus myrmecophilus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 230, 232. ♂.

parkeri Fouts. Md., Mich., Mo. Hosts: *Lygaeus kalmii* Stål; *Oncopeltus fasciatus* (Dallas).
Hadronotus parkeri Fouts, 1920. Ent. Soc. Wash. Proc. 22: 64. ♀ ♂.
Biology: Kenaga, 1944. Ent. News 55: 173–174.

robustus Brues. Tex. (Austin).
Hadronotus robustus Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 156. ♀.

rugiceps Ashmead. D. C.
Hadronotus rugiceps Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 231, 233. ♀

rugosus Howard. Fla. (Rock Ledge). Hosts: *Dysdercus suturellus* (H.-S.); *Euthochtha galeator* (F.).
Hadronotus rugosus Howard, 1889. U. S. Dept. Agr. Insect Life 1: 242. ♀.

Genus BARYCONUS Foerster

Baryconus Foerster, 1856. Hym. Stud., v. 2, pp. 101, 104. No species.
Type: *Baryconus oecanthi* Riley, 1893. Present desig.
Leptoteleia Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 120, 163. N. syn.
Type: *Baryconus oecanthi* Riley. Monob.

bicolor Harrington. Ont. (Ottawa).
Baryconus bicolor Harrington, 1899. Canad. Ent. 31: 79. ♀ ♂.

cinctus Harrington. Ont. (Ottawa).
Baryconus cinctus Harrington, 1899. Canad. Ent. 31: 79. ♀.

oecanthi Riley. Pa., Va., Nebr. Hosts: *Oecanthus niveus* (Deg.); *O. nigricornis quadripunctatus* Beut.
Baryconus oecanthi Riley, 1893. *In* Ashmead, U. S. Natl. Mus. Bul. 45: 215. ♂ ♀.

Genus PROSAPEGUS Kieffer

Prosapegus Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 121, 147.
Type: *Anteris elongata* Ashmead. Monob. and orig. desig.

elongatus (Ashmead). Fla.
Anteris elongata Ashmead, 1887. Ent. Amer. 3: 118. ♂.

Genus CERATOTELEIA Kieffer

Ceratoteleia Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 121.
Type: *Caloteleia grenadensis* Ashmead, 1895. Desig. by Kieffer, 1926.

marlattii (Ashmead). Mass., Conn., N. J., Ill., Kans. Host: In colony of *Myrmica* sp. and *Leptothorax* sp. (mixed).
Caloteleia Marlattii Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 212, 214. ♂ ♀.

parvipennis (Melander and Brues). Mass. (Woods Hole).
Caloteleia parvipennis Melander and Brues, 1903. Biol. Bul. 5: 22. ♀.

rubriclava (Ashmead). Fla. (Jacksonville).
Acolus rubriclavus Ashmead, 1887. Ent. Amer. 3: 99. ♀.

Genus PEGOTELEIA Kieffer

Pegoteleia Kieffer, 1926. Das Tierreich, Lief. 48, pp. 272, 510.
Type: *Baryconus calopterus* Kieffer, 1910. Orig. desig.

cinctiventris (Ashmead). Fla. (Jacksonville).
Baeoneura cinctiventris Ashmead, 1887. Ent. Amer. 3: 99. ♀.

heidemannii (Ashmead). Va.
Caloteleia Heidemannii Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 212, 213. ♀.

striata (Ashmead). D. C.
Caloteleia striata Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 212, 213. ♀.

Genus MACROTELEIA Westwood

Macroteleia Westwood, 1835. Zool. Soc. London, Proc. 3: 70.
Type: *Macroteleia cleonymoides* Westwood. Monob.
Macrotelia Schulz, 1906. Spolia Hym., p. 151. Emend.

erythrothorax Kieffer. Pa. (Jeannette).
Macroteleia erythrothorax Kieffer, 1908. Soc. Sci. Bruxelles Ann. (2) 32: 22. ♀.

floridana (Ashmead). Va., Fla.
Baeoneura floridana Ashmead, 1887. Ent. Amer. 3: 99. ♂ ♀.

floridana var. **goldsmithi** Girault. Ill. (Urbana).
Macroteleia floridana var. *goldsmithi* Girault, 1920. U. S. Natl. Mus. Proc. 58: 180. ♀.

macrogaster Ashmead. Tex.
Macroteleia macrogaster Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 217. ♂ ♀.

punctata Kieffer. Tex.
Macroteleia punctata Kieffer, 1904. Arkiv för Zool. 1: 532. ♂.

ruskini Girault. Ill.
Macroteleia ruskini Girault, 1920. U. S. Natl. Mus. Proc. 58: 179. ♀.

surfacei Brues. N. J. (Chester). Host: Eggs of Locustidae.
Macroteleia surfacei Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 153. ♀.

Genus STICTOTELEIA Kieffer

Stictoteleia Kieffer, 1926. Das Tierreich, Lief. 48, pp. 272, 546.
Type: *Macroteleia virginiensis* Ashmead. Orig. desig.

virginiensis (Ashmead). Que., Va. Host: *Orchelimum glaberrimum* (Burm.).
Macroteleia virginiensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 217, 218. ♀.

Genus SYNTELEIA Fouts

Synteleia Fouts, 1927. Ent. Soc. Wash. Proc. 29: 178.
Type: *Synteleia coracina* Fouts. Monob. and orig. desig.

coracina Fouts. Tex. (Brownwood).
Synteleia coracina Fouts, 1927. Ent. Soc. Wash. Proc. 29: 178. ♀.

Genus PSEUDANTERIS Fouts

Pseudanteris Fouts, 1927. Ent. Soc. Wash. Proc. 29: 177.
Type: *Pseudanteris insignis* Fouts. Monob. and orig. desig.

insignis Fouts. Md. (Glen Echo).
Pseudanteris insignis Fouts, 1922. Ent. Soc. Wash. Proc. 29: 177. ♀.

Unrecognized Species of Scelionidae

Telenomus rufoniger Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 403. ♂.

Family PLATYGASTERIDAE

Members of this group are mainly parasites of Diptera, although a few are important parasites of mealybugs and whiteflies.

Biology: Clausen, 1940. Entomophagous Insects, pp. 239–249.
Taxonomy: Kieffer, 1926. Das Tierreich, Lief. 48, pp. 537–844.

Subfamily INOSTEMMINAE

Genus MONOCRITA Foerster

Monocrita Foerster, 1856. Hym. Stud., v. 2, pp. 106, 109.
Type: ***Inostemma atinas*** Walker. Monob.

carinata Ashmead. D. C.
Monocrita carinata Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 253, 254. ♀.

nigripes Ashmead. Colo. (Greeley).
Monocrita nigripes Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 9. ♂.

Genus METACLISIS Foerster

Metaclisis Foerster, 1856. Hym. Stud., v. 2, pp. 106, 109.
Type: ***Metaclisis areolatus*** Foerster. Monob.

belonocnemae Ashmead. Fla. (Jacksonville). Host: Gall of *Belonocnema treatae* Mayr.
Metaclisis belonocnemae Ashmead, 1887. Canad. Ent. 19: 125. ♀.

erythropus Ashmead. Ont. (Ottawa).
Metaclisis erythropus Ashmead, 1888. Canad. Ent. 20: 51. "♀"=♂.

Genus ACEROTA Foerster

Acerota Foerster, 1856. Hym. Stud., v. 2, p. 107. No species.
Type: ***Acerota caryae*** Ashmead, 1887. Present desig.

americana (Ashmead). Fla. (Jacksonville).
Allotropa Americana Ashmead, 1887. Canad. Ent. 19: 125. ♂.
Monocrita melanostropha Ashmead, 1887. Canad. Ent. 19: 126. ♀.
Acerota caryae Ashmead, 1887. Canad. Ent. 19: 128. ♂ ♀.

cecidomyiae Ashmead. Calif. (Los Angeles Co.). Host: Itonidid gall-maker on *Ephedra californica*.
Acerota cecidomyiae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 260, 261. ♂.

floridana Ashmead. Fla. (Jacksonville).
Acerota Floridana Ashmead, 1887. Canad. Ent. 19: 128. ♀.

leonardi Fouts. N. Y. (McLean Bogs).
Acerota leonardi Fouts, 1925. Ent. Soc. Wash. Proc. 27: 147. ♂.

Genus ALLOTROPA Foerster

Allotropa Foerster, 1856. Hym. Stud., v. 2, pp. 106, 109.
Type: ***Inostemma mecrida*** Walker. Monob.

Species of this genus are parasites of mealybugs. Some are apparently important factors in the control of those pests.

ashmeadi Muesebeck. Conn., Md., Va., La. Hosts: *Pseudococcus virgatus* (Ckll.); *P. comstocki* (Kuw.); *Phenacoccus* sp.
Iphitrachelus americanus Ashmead, 1891 (1890). Ent. Soc. Wash. Proc. 2: 58. *Nom. nud.*
Iphetrachelus (!) ***americanus*** Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 250. ♂. Preocc.
Allotropa ashmeadi Muesebeck, 1939. Canad. Ent. 71: 159. N. name.

burrelli Muesebeck. Del., Va.; Japan. Host: *Pseudococcus comstocki* (Kuw.).
Allotropa burrelli Muesebeck, 1942. Brooklyn Ent. Soc. Bul. 37: 170. ♀ ♂.
Biology: Clancy, 1944. Jour. Agr. Res. 69: 159–167.

convexifrons Muesebeck. Conn., N. Y., N. J., Va.; Japan. Host: *Pseudococcus comstocki* (Kuw.).
Allotropa convexifrons Muesebeck, 1942. Brooklyn Ent. Soc. Bul. 37: 171. ♀ ♂.
Biology: Haeussler and Clancy, 1944. Jour. Econ. Ent. 37: 503–509.

utilis Muesebeck. N. S., Ont. Host: *Phenacoccus aceris* (Sign.).
Allotropa utilis Muesebeck, 1939. Canad. Ent. 71: 158. ♀ ♂.
Biology: Gilliatt, 1939. Canad. Ent. 71: 160–163.

Genus TRICLAVUS Brèthes

Triclavus Brèthes, 1916. Buenos Aires Mus. Nac. de Hist. Nat. An. 27: 411.
Type: ***Triclavus bonariensis*** Brèthes. Monob.
Platyllotropa Szelényi, 1938. Mus. Nat. Hungarici Ann. 31: 126.
Type: ***Platyllotropa gallicola*** Szelényi. Monob.

drakei Ogloblin. Iowa (Ames).
Triclavus drakei Ogloblin, 1944. Ent. Soc. Wash. Proc. 46: 156. ♀.

Genus INOSTEMMA Haliday

Inostemma Haliday, 1833. Ent. Mag. 1: 270.
Type: ***Psilus boscii*** Jurine. Monob.

californicum Ashmead. Calif. (Los Angeles). Host: Itonidid gall on *Telypodium intergrifolium*.
Inostemma Californica Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 257, 259. ♂ ♀.

cressoni Ashmead. Fla. (Jacksonville).
Inostemma Cressoni Ashmead, 1887. Canad. Ent. 19: 127. ♀.

horni Ashmead. Fla. (Jacksonville).
Inostemma Horni Ashmead, 1887. Canad. Ent. 19: 126. ♂ ♀.

leguminicolae Fouts. N. Y. (Ithaca). Host: *Dasyneura leguminicola* (Lint.).
Inostemma leguminicolae Fouts, 1923. Ent. Soc. Wash. Proc. 25: 64. ♀.

lintneri Ashmead. Ont., N. Y., D. C.
Inostemma Lintneri Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 257, 259. ♀.

packardi Ashmead. Fla. (Jacksonville).
Inostemma Packardi Ashmead, 1887. Canad. Ent. 19: 127. ♀.

rileyi Ashmead. Fla. (Jacksonville).
Inostemma Rileyi Ashmead, 1887. Canad. Ent. 19: 127. ♂ ♀.

Genus ISOSTASIUS Foerster

Isostasius Foerster, 1856. Hym. Stud., v. 2, pp. 106, 109.
Type: ***Platygaster punctiger*** Nees. Desig. by Ashmead, 1893.

arietinus Provancher. Que. (Cap Rouge).
Isostasis (!) ***arietinus*** Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 183. ♀.

fuscipennis Ashmead. D. C.
Isostasius fuscipennis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 255. ♀.

musculus Ashmead. Fla. (Jacksonville).
Isostasius musculus Ashmead, 1887. Canad. Ent. 19: 126. ♀.

Subfamily PLATYGASTERINAE

Revision: Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 1–145.

Genus AMBLYASPIS Foerster

Amblyaspis Foerster, 1856. Hym. Stud., v. 2, pp. 107, 112.
Type: ***Platygaster tritici*** Curtis. Desig. by Kieffer, 1926.

californica Ashmead. Calif. (Marin Co.).
Amblyaspis californicus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 267, 268. ♂ ♀.

occidentalis Ashmead. Kans. (Riley Co.).
Amblyaspis occidentalis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 267. ♀.

petiolata Ashmead. Fla.
Amblyaspis petiolatus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 267, 268. ♂ ♀.

Genus FIDIOBIA Ashmead

Fidiobia Ashmead, 1895. Cincinnati Soc. Nat. Hist. Jour., p. 170.
Type: ***Fidiobia flavipes*** Ashmead. Monob.
Rosneta Brues, 1908. Wis. Nat. Hist. Soc. Bul. 6: 157.
Type: ***Rosneta tritici*** Brues. Monob. and orig. desig.

flavipes Ashmead. N. Y., Ohio. Host: *Fidia viticida* Walsh.
Fidiobia flavipes Ashmead, 1894. Cincinnati Soc. Nat. Hist. Jour., p. 171. ♀.
Rosneta tritici Brues, 1908. Wis. Nat. Hist. Soc. Bul. 6: 157. ♀.

rugosifrons Crawford. Pa., Ind.
Fidiobia rugosifrons Crawford, 1916. Insecutor Inscitiae Menstruus 4: 141. ♀; "♀"=♂.

Genus AMITUS Haldeman

Amitus Haldeman, 1850. Amer. Jour. Sci. (2) 9: 109.
Type: ***Amitus aleurodinis*** Haldeman. Monob.
Zacrita Foerster, 1878. Naturh. Ver. Rheinlande Verh. 35: 46.
Type: ***Zacrita longicornis*** Foerster. Monob. and orig. desig.
Passalida Brèthes, 1914. Nunquam otiosus, Buenos Aires, p. 2.
Type: ***Passalida spinifera*** Brèthes. Monob. and orig. desig.

The known species of this genus are parasites of Aleyrodidae.

aleurodinis Haldeman. Mass., Conn., Pa., N. J., D. C., Fla., Ill., Calif.; Mexico.
Hosts: *Aleurodes corni* Hald.; *A.* sp.; *Trialeurodes fernaldi* (Morrill); *Aleuroplatus plumosus* (Quaint.); *Aleurochiton forbesii* (Ashm.).
Amitus aleurodinis Haldeman, 1850. Amer. Jour. Sci. (2) 9: 110.
Elaptus aleurodis Forbes, 1885 (1884). State Ent. Ill. Rpt. 14: 110. ♀.
Anaphes mellicornis Ashmead, 1887. Canad. Ent. 19: 194. ♀.
Taxonomy: Gahan, 1927. U. S. Natl. Mus. Proc. 71 (4): 39.

arcturus Whittaker. B. C. (Hollyburn).
Amitus arcturus Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 69. ♀ ♂.

Genus ISOCYBUS Foerster

Isocybus Foerster, 1856. Hym. Stud., v. 2, pp. 108, 114.
Type: ***Platygaster cotta*** Walker. Present desig.

canadensis (Provancher). Que., Mich., Iowa, Tex., Colo.
Platygaster canadensis Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 181. ♂ ♀.
Isocybus nigriclavus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 328. ♀.

Genus TRICHACIS Foerster

Trichacis Foerster, 1856. Hym. Stud., v. 2, pp. 108, 115.
Type: ***Platygaster pisis*** Walker. Desig. by Ashmead, 1893.
Trichasis (!) Thomson, 1859. Öfvers. Kongl. Vetensk. Akad. Forh. 16: 78.

arizonensis (Ashmead). Ariz. (Ft. Huachuca).
Isorhombus arizonensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 277. ♀.

auripes Provancher. Que. (Cap Rouge).
Trichacis auripes Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 403. ♀.

cornicola (Ashmead). Mo. (Kirkwood). Host: Itonidid gall on *Cornus paniculata*.
Synopeas cornicola Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 286, 288. ♂ ♀.

cornuta Fouts. Tex. (Brownwood).
Trichacis cornuta Fouts, 1925. Ent. Soc. Wash. Proc. 27: 93. ♀.

rubicola Ashmead. Pa., D. C., Va., Fla., Ind., Mo., Ariz.
Trichasis (!) ***rubicola*** Ashmead, 1893. U. S. Natl. Mus. 45: 295, 296. ♂ ♀.
Trichasis (!) ***arizonensis*** Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 295, 296. ♂ ♀. Preocc.
Trichasis (!) ***brunneipes*** Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 295, 296. ♀.

rufipes Ashmead. D. C., Va., Fla., Mo.
Trichasis (!) ***rufipes*** Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 295. ♂ ♀.

texana Fouts. Tex. (Brownwood).
Trichacis texana Fouts, 1925. Ent. Soc. Wash. Proc. 27: 94. ♀.

virginiensis Ashmead. Va. (Arlington).
Trichasis (!) ***virginiensis*** Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 295, 297. ♀.

Genus ERITRISSOMERUS Ashmead

Eritrissomerus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 264, 298.
Type: ***Eritrissomerus cecidomyiae*** Ashmead. Monob. and orig. desig.

cecidomyiae Ashmead. Fla. (Jacksonville).
Eritrissomerus cecidomyiae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 299. ♀ ♂.

floridanus (Ashmead). Fla. (Jacksonville).
Polygnotus floridanus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 304, 318. "♂"=♀.

noveboracensis Brues. N. Y. (Albany). Host: Itonidid gall.
Eritrissomerus noveboracensis Brues, 1910. Wis. Nat. Hist. Soc. Bul. 8: 48. ♂.

pallipes Harrington. Que. (Hull).
Eritrissomerus pallipes Harrington, 1899. Roy. Soc. Canada Trans. (ser. 2) 5 (4): 191. ♀ ♂.

parvus Fouts. Md. (Cabin John).
Eritrissomerus parvus Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 19, 22. ♀.

Genus PLATYGASTER Latreille

Platygaster Latreille, 1809. Gen. Crust. Ins., v. 4, p. 31.
Type: ***Scelio ruficornis*** Latreille. Monob.
Isorhombus Foerster, 1856. Hym. Stud., v. 2, pp. 107, 113. No species. N syn.
Type: ***Isorhombus hyalinipennis*** Ashmead, 1887. First included species.
Hypocampsis Foerster, 1856. Hym. Stud., v. 2, pp. 108, 115. No species.
Type: ***Hypocampsis compressicornis*** Thomson, 1859. Desig. by Debauche, 1947.
Polygnotus Foerster, 1856. Hym. Stud., v. 2, pp. 108, 115.
Type: ***Platygaster striolatus*** Nees. Monob. and orig. desig.
Aneuron Brues, 1910. Wis. Nat. Hist. Soc. Bul. 8: 49.
Type: ***Aneuron anormis*** Brues. Monob.
Triplatygaster Kieffer, 1913. Brotéria, Rev. Luso-Brazil. Ser. Zool. 11: 178.
Type: ***Platygaster contorticornis*** Ratzeburg. Monob.

Most of the species of this genus parasitize Diptera of the family Itonididae.

aciculata Ashmead. Pa.
Platygaster aciculatus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 323, 326. ♂.

actinomeridis (Ashmead). D. C. Host: Itonidid gall on *Actinomeris squarrosa* Nuthall.
Polygnotus actinomeridis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 302, 317. ♀.

affinis Fouts. Tex. (Brownwood).
Platygaster affinis Fouts, 1925. Ent. Soc. Wash. Proc. 27: 94. ♀.

alnicola (Ashmead). D. C. Host: Gall of *Dasyneura serrulatae* (O. S.).
Polymecus alnicola Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 278, 283. ♂ ♀.

americana (Ashmead). Fla.
Epimeces americanus Ashmead, 1887. Canad. Ent. 19: 129. ♀ (♂ misdet.).

anormis (Brues). N. Y., Miss.
Aneuron anormis Brues, 1910. Wis. Nat. Hist. Soc. Bul. 8: 49. ♀ ♂.

antennariae (Ashmead). Wis. (Milwaukee). Host: *Rhopalomyia antennaria* (Whlr.).
Synopeas antennariae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 286, 288. ♂ ♀.

anura Fouts. Tex. (Brownwood).
Platygaster anura Fouts, 1925. Ent. Soc. Wash. Proc. 27: 94. ♀ ♂.

aphidis Ashmead. N. Y. (Richfield Springs).
Platygaster aphidis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 323, 325. ♂.

artemisiae (Ashmead). Calif. (Lancaster). Host: Itonidid on *Artemisia californica.*
Polygnotus artemisiae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 301, 309. ♀ ♂.

astericola (Ashmead). N. H. (Holderness). Host: Itonidid gall on Aster.
Polygnotus astericola Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 302, 320. ♂ ♀.

asynaptae (Ashmead). Ill. (Maywood). Host: *Asynapta* sp. on willow.
Polygnotus asynaptae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 302, 315. ♂ ♀.

atrae Fouts. Ariz. (Fort Grand). Host: Gall of *Procercidochares atra* (Loew).
Platygaster atrae Fouts, 1924. U. S. Natl. Mus. Proc. 63: 28, 87. ♀ ♂.

atriplicis (Ashmead). Calif. Host: Itonidid gall on *Atriplex canescens.*
Polygnotus atriplicis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 304, 308. ♂ ♀.

baccharicola (Ashmead). Fla., Miss., La. Host: "*Cecidomyia baccharicola* Ashm. MS."
Polygnotus baccharicola Ashmead, 1887. Canad. Ent. 19: 132. ♂ ♀.

burkei (Rohwer). Calif. (Placerville). Host: Itonidid on *Pinus ponderosa.*
Polygnotus burkei Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 170. ♀ ♂.

californica (Ashmead). Calif., Idaho. Host: Itonidid gall on *Baccharis pilularis.*
Polygnotus californicus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 302, 321. ♂ ♀.

caryae Ashmead. D. C., Fla., Mo. Host: Itonidid galls.
Platygaster caryae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 323. ♀ ♂.

coloradensis (Ashmead). Colo. Utah. Hosts: Itonidid gall on sage brush; *Rhopalomyia betheliana* Ckll.
Polygnotus coloradensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 302, 320. ♂ ♀.

columbiana Fouts. D. C. Host: Itonidid gall in alder flower bud.
Polygnotus alnicola Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 301, 310. ♀. Preocc.
Platygaster columbiana Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15a): 29, 95. ♀ ♂.

compressiventris (Ashmead). D. C.
Polymecus compressiventris Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 278, 282. ♀.

confusa Fouts. Colo., Que.
Ectadius pallipes Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 9. ♀ ♂. Preocc.
Ectadius pallidipes Dalla Torre, 1898. Cat. Hym., v. 5, p. 486. Emend.
Platygaster confusa Fouts, 1924. U. S. Natl. Mus. Proc. 63: 26, 44. N. name.

cynipicola (Ashmead). Va. (Arlington). Host: *Neuroterus batatus* Fitch.
Polygnotus cynipicola Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 302, 314. ♀; "♂"=♀.

diplosidis (Ashmead). Mass., N. J., D. C., Va., N. C., Mont., Calif. Host: *Retinodiplosis pini-inopis* (O. S.).
Polygnotus diplosidis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 300, 306. ♀.
Polygnotus pinicola Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 301, 307. ♂ ♀.

distincta Fouts. Calif. Hosts: *Thecodiplosis* sp.; *T. piniradiatae* (S. and M.).
Platygaster distincta Fouts, 1926. Ent. Soc. Wash. Proc. 28: 176. ♂.

errans Fouts. Ga., Fla., La.
Platygaster errans Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 29, 93. ♀.

eurotiae (Ashmead). Calif. (San Bernardino Co.). Host: Itonidid gall on *Eurotia canata.*
Polygnotus eurotiae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 302, 315. ♀.

euurae (Ashmead). Mo. (St. Louis). Host: *Euura salicis-nodus* D. T.
Polygnotus euurae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 304, 318. ♂.

exiguae Fouts. Colo. (Oxford). Host: From unidentified itonidid.
Platygaster exiguae Fouts, 1926. Ent. Soc. Wash. Proc. 28: 175. ♀.

feltii Fouts. Tex. (Austin). Host: Gall of *Walshomyia texana* Felt.
Platygaster feltii Fouts, 1920. Ent. Soc. Wash. Proc. 22: 70. ♀ ♂.

filicaudis Fouts. Fla. (Paradise Key).
Platygaster filicaudis Fouts, 1925. Ent. Soc. Wash. Proc. 27: 95. ♀ ♂.

filicornis (Ashmead). Ont., D. C.
Polygnotus filicornis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 302, 321. ♂ ♀.

flavitarsis Fouts. Md. (Glen Echo).
Platygaster flavitarsis Fouts, 1926. Ent. Soc. Wash. Proc. 28: 176. ♀.

floridensis Ashmead. Fla. (Jacksonville).
Platygaster Floridensis Ashmead, 1887. Canad. Ent. 19: 132. ♀.

fumipennis Fouts. U. S.
Platygaster fumipennis Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 29, 87. ♀ ♂.

fuscipennis Fouts. Md. (Glen Echo).
Platygaster fuscipennis Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 26, 39. ♀.

gahani Fouts. Calif. (Quincy).
Platygaster gahani Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 26, 55. ♀.

herrickii Packard. U. S., wherever the Hessian fly occurs. Host: *Phytophaga destructor* (Say).
Platygaster herrickii Packard, 1880. U. S. Ent. Comn. Bul. 4: 20, 21.
Biology: Hill and Emery, 1937. Jour. Agr. Res. 55: 199–213.—Hill, Pinckney and Udine, 1939. U. S. Dept. Agr. Tech. Bul. 689: 1–15.
Taxonomy: Gahan, 1934 (1933). U. S. Dept. Agr. Misc. Pub. 174: 14–18.

hiemalis Forbes. Ohio, Ind., Ill., Ky., Iowa, Mo., Nebr., Kans., N. Dak., Oreg. Host: *Phytophaga destructor* (Say).
Platygaster herrickii Fitch, 1866. Cultiv. and Country Gent. 28: 354. *Nom. nud.*
Platygaster minutus Lindeman, 1887. Soc. Imp. Nat. Moscou Bul. (2) 1: 188. Preocc.
Platygaster hiemalis Forbes, 1888. Psyche. 5: 39. ♀ ♂.
Platygaster minutula Dalla Torre, 1898. Cat. Hym., v. 5, p. 474.
Biology: Leiby and Hill, 1923. Jour. Agr. Res. 25: 337–349.—Hill, 1926. Jour. Agr. Res. 32: 261–275.
Taxonomy: Gahan, 1934 (1933). U. S. Dept. Agr. Misc. Pub. 174: 4–10.

huachucae (Ashmead). Ariz. (Fort Huachuca). Host: Itonidid gall on sunflower.
Polygnotus huachucae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 302, 316. ♂ ♀.

hyalinipennis (Ashmead). Fla. (Jacksonville).
Isorhombus hyalinipennis Ashmead, 1887. Canad. Ent. 19: 129. ♂ ♀.

kalmiae Fouts. Md. (Glen Echo).
Platygaster kalmiae Fouts, 1925. Ent. Soc. Wash. Proc. 27: 95. ♂.

laevicollis (Ashmead). D. C.
Polygnotus laevicollis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 304, 320. ♂.

lampronota Fouts. Calif., Idaho. Host: *Harmolita* sp. on *Baccharis pilularis.*
Platygaster lampronota Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 26, 48. ♀ ♂.

laticeps (Ashmead). Fla. (Jacksonville).
Polygnotus laticeps Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 311. ♂ (♀ misdet.).

leguminicolae Fouts. Oreg. (Forest Grove). Host: *Dasyneura leguminicola* (Lint.).
Platygaster leguminicolae Fouts, 1920. Ent. Soc. Wash. Proc. 22: 69. ♀ ♂.

linearis Fouts. Iowa, S. Dak. Host: *Lasioptera echinochloa* Felt.
Polymecus lasiopterae Gahan, 1917. U. S. Natl. Mus. Proc. 53: 217. ♀ ♂. Preocc.
Platygaster linearis Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 29, 93. ♀ ♂. N. name.

longiventris (Ashmead). Fla. (Jacksonville).
Isocybus longiventris Ashmead, 1887. Canad. Ent. 19: 130. ♀.

lucida Fouts. Colo. (Mountain View).
Platygaster lucida Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 26, 54. ♀.

lupinicola (Ashmead). Calif. (San Francisco). Host: Itonidid gall on *Lupinus athorea.*
Polymecus lupinicola Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 278, 281. ♀ (♂ misdet.).

marylandica Fouts. Md. (Glen Echo).
Platygaster marylandica Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 28, 85. ♀ ♂.

melanocera (Ashmead). Fla. (Jacksonville).
Synopeas melanocera Ashmead, 1887. Canad. Ent. 19: 130. ♀.
Platygaster gracilis Ashmead, 1887. Canad. Ent. 19: 132. ♂.

melliscapus (Ashmead). D. C.
Polymecus melliscapus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 278, 282. ♀.

minutissima Fouts. Tex. (Brownwood).
Platygaster minutissima Fouts, 1925. Ent. Soc. Wash. Proc. 27: 96. ♂.

nigricoxa Fouts. Calif. (San Francisco). Host: Gall of "*Dasyneura lupini* Felt."
Platygaster nigricoxa Fouts, 1925. Ent. Soc. Wash. Proc. 27: [147]. ♀ ♂.

nigrifemur (Ashmead). Colo., Ont.
Ectadius nigrifemur Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 10. ♀ ♂.

obscuripennis Ashmead. Ont. (Ottawa).
Platygaster obscuripennis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 323, 325. ♂ (♀ misdet.).

oenone Fouts. B. C. (Revelstoke).
Platygaster oenone Fouts, 1925. Ent. Soc. Wash. Proc. 27: 149. ♀.

pallida Fouts. N. Y. (McLean Bogs).
Platygaster pallida Fouts, 1925. Ent. Soc. Wash. Proc. 27: 148. ♂.

pallipes Say. U. S.
Platygaster pallipes Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 80.

pentatoma (Ashmead). Va. (Arlington).
Anopedias pentatomus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 292. ♀.

perplexa Fouts. Colo. (Grant).
Platygaster perplexa Fouts, 1925. Ent. Soc. Wash. Proc. 27: 96. ♂.

picipes (Ashmead). D. C.
Polymecus picipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 278, 282. ♀.

pini Fouts. Mo., Colo. Hosts: Itonidid on *Pinus edulis; Lestodiplosis juniperina* Felt.
Platygaster pini Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 30, 99. ♀ ♂.

pluto (Ashmead). Fla. (Jacksonville).
Hypocampsis Pluto Ashmead, 1887. Canad. Ent. 19: 131. ♀.

relativa Fouts. N. H. (Holderness).
Platygaster relativa Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 30, 104. ♀.

rohweri Fouts. Oreg., Calif.
Platygaster rohweri Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 30, 100. ♀ ♂.

rubi (Ashmead). N. J., Va. Host: *Lasioptera farinosa* Beut.
Polygnotus rubi Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 302, 315. ♀.

rufidens Fouts. Md. (Glen Echo).
Platygaster rufidens Fouts, 1925. Ent. Soc. Wash. Proc. 27: 97. ♂.

rufipes (Ashmead). Va. (Arlington).
Synopeas rufipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 286, 287. ♀.

salicicola (Ashmead). Calif. (Los Angeles). Host: Itonidid gall on willow.
Polygnotus salicicola Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 300, 305. ♂ ♀.

scorpoides Muesebeck and Walkley, n. name. Que., Ont.
Ectadius canadensis Ashmead, 1888. Canad. Ent. 20: 51. ♀. Preocc. by Provancher, 1887.

scutellator Fouts. Md. (Glen Echo).
Platygaster scutellator Fouts, 1925. Ent. Soc. Wash. Proc. 27: 96. ♂.

semiglabra (Girault). N. Y.
Polymecus semiglaber Girault, 1920. U. S. Natl. Mus. Proc. 58: 177. ♀ ♂.

shastensis Fouts. Oreg. (Palmerlees Ranch).
Platygaster shastensis Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 26, 53. ♀.

signata Fouts. Tex. (Brownwood).
Platygaster signata Fouts, 1925. Ent. Soc. Wash. Proc. 27: 97. ♀.

solidaginis (Ashmead). Pa., D. C., N. C., Ga., Fla. Hosts: "*Cecidomyia nebulosa* Ashm. MS."; black blister galls on *Solidago*.
Polygnotus solidaginis Ashmead, 1887. Canad. Ent. 19: 131. ♂ ♀.
Polygnotus angulatus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 304, 319. ♂.

striaticeps (Ashmead). Calif., Idaho, Kans. Hosts: Itonidid gall on *Bigelovia* or *Artemisia* sp., *Aspidiotus* sp. on *Bigelovia*.
Polygnotus striaticeps Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 301, 308. ♂♀.

striaticollis (Ashmead). Fla. (Jacksonville).
Polygnotus striaticollis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 304, 319. ♂.

striatifrons Fouts. Md. (Glen Echo).
Platygaster striatifrons Fouts, 1925. Ent. Soc. Wash. Proc. 27: 98. ♂.

tacita Fouts. Tex. (Brownwood).
Platygaster tacita Fouts, 1925. Ent. Soc. Wash. Proc. 27: 98. ♀.

texana Fouts. Tex. (Uvalde). Host: (?) *Dactylopius confusus* (Ckll.).
Platygaster texana Fouts, 1924. Ent. Soc. Wash. Proc. 63 (15): 28, 82. ♀ ♂.

tumida (Ashmead). D. C. Host: Gall of *Cincticornia symmetrica* (O. S.).
Polygnotus tumidus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 301, 310. ♀.

utahensis (Ashmead). Utah, Idaho. Host: Itonidid gall on *Artemisia 3-dentata*.
Polygnotus utahensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 301, 314. ♀ (♂ misdet.).

vancouverensis (Ashmead). B. C. (Vancouver Isl.).
Polymecus vancouverensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 278, 281. ♀.

variabilis Fouts. Mo., N. C. Host: Galls of *Rhopalomyia carolina* Felt or *R. solidaginis* (Loew) on goldenrod.
Platygaster variabilis Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 30, 106. ♀ ♂.

vernoniae (Ashmead). Va. (Arlington). Host: Trypetid gall on *Vernonia noveboracensis.*
Polygnotus vernoniae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 302, 317. ♀ ♂.

virginiensis (Ashmead). Pa., Md., D. C., Va. Host: *Thecodiplosis cupressiananassa* (Riley).
Polygnotus virginiensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 301, 309. ♀ ♂.
Polygnotus proximus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 301, 312. ♂ ♀.

viticola (Ashmead). D. C. Host: Itonidid gall on petiole of grapevine.
Polygnotus viticola Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 301, 313. ♂ ♀.

websteri Fouts. Ohio (Webster).
Platygaster websteri Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 26, 50. ♀.

zosine Walker. Europe; Pa., Md., Va., W. Va., Ohio, Ind., Mo. Host: *Phytophaga destructor* (Say).
Platygaster zosine Walker, 1836. Ent. Mag. 3: 266.
Polygnotus zozini Marchal, 1897. Soc. Ent. France Ann. 66: 93. Emend.
Platygaster longicaudatus Kieffer, 1906. Soc. Sci. Bruxelles Ann. (2) 30: 131. ♀ ♂.
Platygaster brevicaudatus Kieffer, 1906. Soc. Sci. Bruxelles Ann. (2) 30: 133. ♀ ♂.
Polygnotus vernalis Myers, 1917. U. S. Natl. Mus. Proc. 53: 256. ♀ ♂.
Biology: Hill, 1923. Jour. Agr. Res. 25: 31–42.—Leiby and Hill, 1924. Jour. Agr. Res. 28: 829–839.—Gahan, 1934 (1933). U. S. Dept. Agr. Misc. Pub. 174: 10–14.
Taxonomy: Gahan, 1934 (1933). U. S. Dept. Agr. Misc. Pub. 174: 10–14.

Genus XESTONOTIDEA Gahan

Xestonotus Foerster, 1856. Hym. Stud., v. 2, pp. 107, 112. Preocc.
Type: ***Xestonotus andriciphilus*** Ashmead, 1887. First included species.
Xestonotidea Gahan, 1919. U. S. Natl. Mus. Proc. 56: 524. N. name.
Type: ***Xestonotus andriciphilus*** Ashmead. Autob.
Euxestonotus Fouts, 1925. Ent. Soc. Wash. Proc. 27: 98. N. syn.
Type: ***Platygaster error*** Fitch. Orig. desig.
Axestonotus Kieffer, 1926. Das Tierreich, v. 48, pp. 561, 625. N. name.
Type: ***Xestonotus andriciphilus*** Ashmead. Autob.
Eoxestonotus Debauche, 1947. Soc. Ent. Belg. Bul. et Ann. 83: 267. N. syn.
Type: ***Eoxestonotus pini*** Debauche. Orig. desig.

andriciphila (Ashmead), n. comb. Fla. (Jacksonville). Host: Gall of *Andricus blastophagus* Ashm.
Xestonotus andriciphilus Ashmead, 1887. Canad. Ent. 19: 128. ♀.

brevicornis (Fouts), n. comb. Md. (Glen Echo).
Euxestonotus brevicornis Fouts, 1925. Ent. Soc. Wash. Proc. 27: 99. ♀.

error (Fitch), n. comb. Conn., N. Y., Pa., Md., D. C., Va., Ind. Host: *Contarinia tritici* (Kby.).
Platygaster error Fitch, 1861 (1860). N. Y. State Agr. Soc. Trans. 20: 838.

flavipes (Fouts), n. comb. Md. (Glen Echo).
Euxestonotus flavipes Fouts, 1925. Ent. Soc. Wash. Proc. 27: 99. ♀.

rufidens (Fouts), n. comb. Pa. (Carlisle).
Euxestonotus rufidens Fouts, 1925. Ent. Soc. Wash. Proc. 27: 99. ♂.

Genus SACTOGASTER Foerster

Sactogaster Foerster, 1856. Hym. Stud., v. 2, pp. 108, 113.
Type: ***Epimeces ventralis*** Westwood. Desig. by Ashmead, 1893.
Biology: Kutter, 1934. Schweiz. Ent. Gesell. Mitt. 16: 63–66.

Apparently the species of this group are parasites of Itonididae, but none of the Nearctic species has been reared.

anomaliventris Ashmead. Pa., Md., Fla., La.
Sactogaster anomaliventris Ashmead, 1887. Canad. Ent. 19: 130. ♀.

howardii Ashmead. D. C.
Sactogaster Howardii Ashmead, 1888. Canad. Ent. 20: 52. ♀.

longiventris Fouts. Md. (Cabin John).
Sactogaster longiventris Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 110, 111. ♀.

mucronata Fouts. Pa. (Carlisle).
Sactogaster mucronata Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 110, 114. ♀.

varipes Harrington. Que. (Hull).
Sactogaster varipes Harrington, 1899. Roy. Soc. Canada Trans. (ser. 2) 5 (4): 190. ♀ ♂.

Genus LEPTACIS Foerster

Leptacis Foerster, 1856. Hym. Stud., v. 2, pp. 107, 112.
Type: *Ichneumon tipulae* Kirby. Desig. by Ashmead, 1893.
Ectadius Foerster, 1856. Hym. Stud., v. 2, pp. 108, 113, 144.
Type: *Platygaster craterus* Walker. Monob.
Synopeas Foerster, 1856. Hym. Stud., v. 2, pp. 108, 114. No species.
Type: *Synopeas* (*Synopeas*) *inermis* Thomson, 1859. Present desig.
Anopedias Foerster, 1856. Hym. Stud., v. 2, pp. 108, 114. No species.
Type: *Anopedias tritomus* Thomson, 1859. Present desig.
Polymecus Foerster, 1856. Hym. Stud., v. 2, p. 144. Unnecessarily proposed as n. name for *Ectadius* Foerst.
Type: *Platygaster craterus* Walker. Autob.
Ceratacis Thomson, 1859. Öfvers. Kongl. Vetensk. Akad. Forh. 16: 69, 78.
Type: *Ceratacis flavipes* Thomson. Monob.
Dolichotrypes Crawford and Bradley, 1911. Ent. Soc. Wash. Proc. 13: 124.
Type: *Dolichotrypes hopkinsi* Crawford and Bradley. Monob. and orig. desig.

abdominator Fouts. Tex. (Brownwood).
Leptacis abdominator Fouts, 1925. Ent. Soc. Wash. Proc. 27: 101. ♀.

aciculata Fouts. Md. (Glen Echo).
Leptacis aciculata Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 118, 134. ♀ ♂.

aliena Fouts. Md. (Glen Echo).
Leptacis aliena Fouts, 1927. Ent. Soc. Wash. Proc. 29: 176. ♀ ♂.

americana (Ashmead). N. C., Fla., Tenn.
Amblyaspis Americana Ashmead, 1887. Canad. Ent. 19: 129. ♀.

angustula Fouts. Md. (Glen Echo).
Leptacis angustula Fouts, 1925. Ent. Soc. Wash. Proc. 27: 100. ♀.

ashmeadii (Dalla Torre), n. comb. Colo. (West Cliff).
Synopeas inermis Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 10. ♀. Preocc.
Synopeas ashmeadii Dalla Torre, 1898. Das Tierreich, v. 48, p. 483. N. name.

auripes (Ashmead). Que., Va.
Polymecus auripes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 278, 283. ♀.

bradleyi Fouts. N. Y. (Fall Creek).
Leptacis bradleyi Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 118, 132. ♀.

breviventris Ashmead. Ont., Md., D. C., Va.
Leptacis breviventris Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 271, 273. ♀ (♂ misdet.).

carinator Fouts. Tex. (Brownwood).
Leptacis carinator Fouts, 1925. Ent. Soc. Wash. Proc. 27: 101. ♀.

cynipsiphila Ashmead. Fla. (Jacksonville).
Leptacis cynipsiphila Ashmead, 1887. Canad. Ent. 19: 129. ♂ ♀.

dubiosa Fouts. Tex. (Brownwood).
Leptacis dubiosa Fouts, 1925. Ent. Soc. Wash. Proc. 27: 101. ♂.

flavicornis Ashmead. Que., Ont., D. C., Fla.
Leptacis flavicornis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 271, 275. ♂ ♀.

floridana Ashmead. Fla. (Jacksonville).
Leptacis floridanus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 271, 272. ♂ (♀ misdet.).

gahani Fouts. Md. (Glen Echo).
Leptacis gahani Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 117, 123. ♀ ♂.

globata Fouts. D. C.
Leptacis globata Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 11, 129. ♀ ♂.

hopkinsi (Crawford and Bradley). Mass., N. Y., W. Va.
Dolichotrypes hopkinsi Crawford and Bradley, 1911. Ent. Soc. Wash. Proc. 13: 124. ♀; "♂"=♀.

incerta (Ashmead). Fla. (Jacksonville).
Anopedias incertus Ashmead, 1887. Canad. Ent. 19: 130. ♀.

longipes (Ashmead). Fla. (Jacksonville).
Amblyaspis longipes Ashmead, 1887. Canad. Ent. 19: 128. ♂.

longispina Fouts. Md.
Leptacis longispina Fouts, 1927. Ent. Soc. Wash. Proc. 29: 175. ♀ ♂.

longiventris Ashmead. D. C., Va., Iowa.
Leptacis longiventris Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 271, 273. ♀ ♂.

maculipes (Ashmead). Fla. (Jacksonville).
Catillus maculipes Ashmead, 1887. Canad. Ent. 19: 128. ♀.

minuta (Ashmead). D. C., Mo.
Amblyaspis minutus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 267, 269. ♀.

nigripes (Ashmead). D. C.
Synopeas nigripes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 286. ♂.

obscuricornis Fouts. Iowa (Ames).
Leptacis obscuricornis Fouts, 1924. Ent. Soc. Wash. Proc. 26: 161. ♀.

pallipes Fouts. D. C., Ill.
Leptacis pallipes Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 117, 121. ♀.

pennsylvanica Fouts. Pa., Ohio.
Leptacis pennsylvanica Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 117, 120. ♀.

platygaster Fouts. D. C.
Leptacis platygaster Fouts, 1925. Ent. Soc. Wash. Proc. 27: 100. ♀.

pubescens Ashmead. Md., D. C., Va., Ill.
Leptacis pubescens Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 271, 275. ♂.

punctata Ashmead. D. C., Va., Fla.
Leptacis punctatus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 271, 272. ♂ ♀.

puncticeps Ashmead. Pa., N. C., Fla.
Leptacis puncticeps Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 271, 275. ♂.

rufiscapus (Ashmead). Fla. (Jacksonville).
Synopeas rufiscapus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 286, 288. ♂ ♀.

rugiceps (Ashmead). D. C.
Amblyaspis rugiceps Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 267, 269. ♂ ♀.

rugosiceps Kieffer. Fla. (Jacksonville).
Leptacis rugiceps Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 272. ♀ (♂ misdet.). Preocc.
Leptacis ashmeadi Fouts, 1924. U. S. Natl. Mus. Proc. 63 (15): 117, 124. ♀. N. name. Preocc.
Leptacis rugosiceps Kieffer, 1926. Das Tierreich, Lief. 48, pp. 637, 644. N. name.

striatifrons Ashmead. Fla. (Jacksonville).
Leptacis striatifrons Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 271, 273. ♀.

texana Fouts. Tex. (Brownwood).
Leptacis texana Fouts, 1925. Ent. Soc. Wash. Proc. 27: 102. ♂.

Genus GASTROTRYPES Brues

Gastrotrypes Brues, 1922. Amer. Acad. Arts and Sci. Proc. 57: 270.
Type: *Gastrotrypes spatulatus* Brues. Orig. desig.

caudatus Brues. Mass. (Boston).
Gastrotrypes caudatus Brues, 1922. Amer. Acad. Arts and Sci. Proc. 57: 272. ♀.

Superfamily CHRYSIDOIDEA[24]

Family CHRYSIDIDAE

The North American forms of these brilliantly metallic blue and green wasps, popularly known as gold- or cuckoo-wasps, occur as inquilines or parasites in the nests of solitary bees and wasps. The group is of little economic importance although an unsuccessful attempt was made to establish a Chinese parasite (*Chrysis shanghaiensis* Smith) of the oriental moth in Massachusetts.

Taxonomic work in this family is complicated by lack of information on the biology of the group since a knowledge of host relationships is essential for the proper understanding of the various species complexes. It is anticipated that many changes will be made in the synonymy as biological data become available.

Revisions: Aaron, 1885. Amer. Ent. Soc. Trans. 12: 209–248 (No. Amer. spp.). Mocsary, 1889. Monog. Chrysid., 643 pp. (spp. of world). Ashmead, 1902. Canad. Ent. 34: 221–231 (gen.). Bischoff, 1913. Gen. Ins., Fasc. 151 pp.

Genus OMALUS Panzer

Omalus Panzer, 1801. Faunae Ins. German. H. 85, no. 13.
Type: *Chrysis aenea* Fabricius. Monob.
Homalus Saunders, 1873. Ent. Soc. London Trans. p. 411. Emend.
Pseudomalus Ashmead, 1902. Canad. Ent. 34: 229.
Type: *Omalus semicircularis* Aaron. Monob.
Ellampus subg. *Holophris* Mocsary, 1890. Termes. Füszetek 13: 51.
Type: *Ellampus* (*Holophris*) *marginellus* Mocsary. Monob.

diversus Aaron. Wash., Calif.
Omalus diversus Aaron, 1885. Amer. Ent. Soc. Trans. 12: 213. ♀.

glomeratus (du Buysson). "Washington Ter."
Ellampus glomeratus du Buysson, 1901. K. K. Naturhist. Hofmus. Ann. 16: 98. ♂.

iridescens (Norton). Generally over U. S. and Canada. Host: *Stigmus i. inordinatus* Fox.
Elampus iridescens Norton, 1879. Amer. Ent. Soc. Trans. 7: 234. ♂.
Elampus marginatus Provancher, 1881. Nat. Canad. 12: 304. ♀. Preocc. Biology: Davidson, 1895. Psyche 7: 271.

laeviventris Cresson. Transcont. in Canad. Transit. and Upper Austral Zones.
Omalus laeviventris Cresson, 1865. Ent. Soc. Phila. Proc. 4: 303. ♀.
Elampus cyanescens Provancher, 1881. Nat. Canad. 12: 303. ♀

semicircularis Aaron. Ont., Colo. Rare.
Omalus semicircularis Aaron, 1885. Amer. Ent. Soc. Trans. 12: 215. ♂.

[24]By William G. Bodenstein, U. S. Bureau of Entomology and Plant Quarantine.

sinuosus (Say). Generally over U. S. and Canada. Hosts: *Xylocelia americanus* (Pack.); *Stigmus americanus* Pack.; *Pemphredon concolor* Say.
Hedychrum sinuosum Say, 1828. Contrib. Maclur, Lyc. Phila. 1: 82.
Hedychrum janus Haldeman, 1844. Acad. Nat. Sci. Phila. Proc. I: 53. ♀.
Elampus corruscans Norton, 1879. Amer. Ent. Soc. Trans. 7: 234. ♀.
Elampus purpurascens Provancher, 1881. Nat. Canad. 12: 303. ♀.
Biology: Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 602.

Genus ELAMPUS Spinola

Elampus Spinola, 1806. Insectorum Liguriae, v. 1, p. 10.
Type: ***Chrysis panzeri*** Fabricius. Desig. by Latreille, 1810.
Notozus Foerster, 1853. Naturh. Ver. Rheinlande Verh. 10: 351.
Type: (***Notozus frivaldszkii*** Foerster)=***Chrysis panzeri*** Fabricius. Desig. by Ashmead, 1902.
Ellampus Agassiz, 1846. Nomencl. Zool., Index Univ., pp. 135, 136. Emend.

aaroni Bodenstein, n. name. Mont., Colo., Calif.
Notozus productus Aaron, 1885. Amer. Ent. Soc. Trans. 12: 219. ♀. Preocc. by Dahlbom, 1854.

connexus (Viereck), n. comb. Kans., Calif.
Notozus connexus Viereck, 1906. Amer. Ent. Soc. Trans. 32: 192.

hyalinus (Aaron). N. C., Fla., Mich., Ill., S. Dak., Kans., Colo., N. Mex., Tex., Mont., Nev.
Notozus hyalinus Aaron, 1885. Amer. Ent. Soc. Trans. 12: 218. ♀.

intermedius (Aaron). Mont., Oreg.
Notozus intermedius Aaron, 1885. Amer. Ent. Soc. Trans. 12: 218. ♂.

marginatus (Patton). Entire U. S. and Canada.
Notozus marginatus Patton, 1879. Canad. Ent. 11: 66.
Elampus viridis Provancher, 1881. Nat. Canad. 12: 303. ♂. Preocc.

nitidus (Aaron). West and Southwest, east to Iowa.
Notozus nitidus Aaron, 1885. Amer. Ent. Soc. Trans. 12: 218. ♂.

seminudus (Aaron). B. C., Wash., "Wash. Ter.".
Notozus seminudus Aaron, 1885. Amer. Ent. Soc. Trans. 12: 218. ♂ ♀.

versicolor Norton. Calif., Mont., Ariz., N. Mex., "Dakota," Kans.
Elampus versicolor Norton, 1879. Amer. Ent. Soc. Trans. 7: 235. ♂.

viridicyaneus Norton. Transcont. Canad., Transit. and Austral Zones.
Elampus viridicyaneus Norton, 1879. Amer. Ent. Soc. Trans. 7: 235. ♀.
Elampus spinosus Provancher, 1881. Nat. Canad. 12: 302. ♀.

Genus DIPLORRHOS Aaron

Diplorrhos Aaron, 1885. Amer. Ent. Soc. Trans. 12: 216.
Type: ***Diplorrhos plicatus*** Aaron. Monob.

cressoni (Aaron). Generally distributed over west. U. S.
Elampus cressoni Aaron, 1885. Amer. Ent. Soc. Trans. 12: 215. ♂ ♀.

plicatus Aaron. Transcont. Canad., Transit., Upper Austral Zones.
Diplorrhos plicatus Aaron, 1885. Amer. Ent. Soc. Trans. 12: 216. ♂ ♀.

speculum (Say), n. comb. Colo., Wash.
Hedychrum speculum Say, 1836. Boston Jour. Nat. Hist. 1: 225. ♂.

variatus (Aaron), n. comb. Alaska to Calif., east to Alta., Mont., Colo., and N. Mex.
Elampus variatus Aaron, 1885. Amer. Ent. Soc. Trans. 12: 215. ♂ ♀.

Genus HOLOPYGA Dahlbom

Holopyga Dahlbom, 1845. Dispos. Method. Spec. Hym., pt. 2, p. 4.
Type: (***Holopyga amoenula*** Dahlbom)=***Chrysis gloriosa*** Fabricius. Desig. by Ashmead, 1902.
Halopyga (!) Tournier, 1878. Schweiz. Ent. Gesell. Mitt. 5: 305.

hora Aaron. Calif., Idaho, Nev., Ariz., Mont., Kans., Tex.
Holopyga horus Aaron, 1885. Amer. Ent. Soc. Trans. 12: 220. ♂ ♀.

obsoleta (Say). U. S. and Canada east of the Rocky Mts.
Hedychrum obsoleta Say, 1836. Bost. Jour. Nat. Hist. I: 284. ♀.
Hedychrum zimmermanni Dahlbom, 1845. Dispos. Method. Spec. Hym., pt. 2, p. 2. ♂.

taylori Bodenstein. Calif., Idaho, Colo., Mo.
Holopyga taylori Bodenstein, 1939. Ent. News 50: 19. ♂ ♀.

ventralis (Say). Widely distributed throughout U. S. and Canada.
Hedychrum ventrale Say, 1824. *In* Keating, Narr. Long's 2nd. Exped., v. 2, App., p. 330.
Holopyga Dohrni Dahlbom, 1854. Hym. Europaea, v. 2, p. 48.
Holopyga compacta Cresson, 1865. Ent. Soc. Phila. Proc. 4: 304.

Genus HEDYCHRIDIUM Abeille de Perrin

Hedychridium Abeille de Perrin, 1878. Diagn. Chrysid. Nouv., p. 3.
Type: (*Hedychrum minutum* Lepeletier)=*Chrysis ardens* Coquebert. Desig. by Ashmead, 1902.

amabile Cockerell. Calif., Utah, N. Mex.
Hedychridium amabile Cockerell, 1903. Canad. Ent. 35: 262.

cockerelli du Buysson. Colo., S. Dak.
Hedychridium cockerelli du Buysson, 1906. Rev. Ent. Caen 25: 111. ♂.

coeruleum (Norton). N. J., Ind., Ill., Iowa, N. Dak., S. Dak., Mont.
Hedychrum caeruleum Norton, 1879. Amer. Ent. Soc. Trans. 7: 239. ♀.

dimidiatum Say. Throughout U. S. and Canada.
Hedychridium dimidiatum Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, App., p. 330 n. 2.

fletcheri Bodenstein, n. name. Alta., Oreg., Calif., Idaho, Nev., Mont., Wyo., Utah, Colo., N. Mex., N. Dak., S. Dak., Ill., Fla.
Hedychrum viride Cresson, 1865. Ent. Soc. Phila. Proc. 4: 306. Preocc. by Guérin, 1842.

polygoni Rohwer. Colo., Calif.
Hedychridium polygoni Rohwer, 1909. Psyche 16: 87. ♀.

Genus HEDYCHRUM Latreille

Hedychrum Latreille, 1802. Hist. Nat. Crust. and Ins., v. 3, p. 317.
Type: (*Hedychrum lucidulum* Latreille)=*Sphex nobile* Scopoli. Monob.
Hedycrum (!) Say, 1825. *In* Keating, Narr. Long's 2nd Exped., v. 2, App., p. 65.

affinissimum Bischoff. Pa., N. C.
Hedychrum affinissimum Bischoff, 1910. Berlin Zool. Mus. Mitt. 4: 444. ♀.

confusum du Buysson. "Etats-Unis d'Amerique: Colombia."
Hedychrum confusum du Buysson, 1891. Rev. Ent. Caen 10: 30–31. ♂ ♀.

continuum Aaron. Wash., Calif., Nev., Ariz., N. Mex., Colo., Tex., S. Dak., Kans., La., S. C.
Hedychrum continuum Aaron, 1885. Amer. Ent. Soc. Trans. 12: 224. ♂ ♀.

cupricolle Cresson. Alta., Colo., Kans.
Hedychrum cupricolle Cresson, 1865. Ent. Soc. Phila. Proc. 4: 305. ♀.

nearcticum Mocsary. Ala.
Hedychrum nearcticum Mocsary, 1914. Mus. Nat. Hungarici Ann. 12: 11. ♀.

nigropilosum Mocsary. B. C., Calif., Wyo.
Hedychrum nigropilosum Mocsary, 1889. Monog. Chrysid., p. 162. ♂.

violaceum Brullé. Throughout U. S. and Canada.
Hedychrum violaceum Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 51. ♂.
Hedychrum asperum Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 52. ♀.
Hedychrum wiltii Cresson, 1865. Ent. Soc. Phila. Proc. 4: 305. ♀.
Hedychrum Louisianiae Norton, 1879. Amer. Ent. Soc. Trans. 7: 238. ♂.
Hedychrum violaceum var. *parvum* Aaron, 1885. Amer. Ent. Soc. Trans. 12: 223.

Genus CHRYSIS Linnaeus

Subgenus CHRYSURA Dahlbom

Chrysura Dahlbom, 1845. Dispos. Method. Spec. Hym., pt. 2, p. 6.
Type: *Chrysis austriaca* Fabricius. Desig. by Bodenstein, 1939.
Olochrysis Lichtenstein, 1876. Petites Nouv. Ent. v. 2, p. 27. N. syn.
Type: (*Chrysis aerata* Dahlbom)=*Chrysis trimaculata* Foerster. Desig. by Ashmead, 1902.
[*H*]*Olochrysis* Rye, 1878. Zool. Record for 1876, v. 13, Ins. p. 134. Emend.
Monochrysis Lichtenstein, 1876. Petites Nouv. Ent., v. 2, p. 27. N. syn.
Type: *Chrysis hybrida* Lepeletier. Desig. by Ashmead, 1902.
Chrysoura Dalla Torre, 1892. Cat. Hym. v. 6, p. 40. Emend.

cobaltina Aaron. Mass., Mich., Ind., Ill., Mont., Calif., Wash.
Chrysis cobaltina Aaron, 1885. Amer. Ent. Soc. Trans. 12: 228. ♀.
Chrysis lateri-dentata Aaron, 1885. Amer. Ent. Soc. Trans. 12: 228. ♀. N. syn.

cyanosoma Mocsary. Calif.
Chrysis (*Holochrysis*) *cyanosoma* Mocsary, 1914. Mus. Nat. Hungaric. Ann. 12: 17. ♀.

doriae Gribodo. Calif.
Chrysis Doriae Gribodo, 1874. Mus. Civ. Stor. Nat. Genova Ann. 6: 359.

inusitata Aaron. B. C., Oreg., Calif., N. Y., Va.
Chrysis inusitata Aaron, 1885. Amer. Ent. Soc. Trans. 12: 227. ♂.
Chrysis optima Aaron, 1885. Amer. Ent. Soc. Trans. 12: 227. ♀. N. syn.
Chrysis (*Holochrysis*) *interfata* du Buysson, 1908. Rev. Ent. Caen 27: 208. N. syn.

martia Patton. Lower Canada.
Chrysis martia Patton, 1879. Canad. Ent. 11: 67–68.

pacifica Say. Throughout U. S. and Canada. Host: *Osmia georgica* Cr.
Chrysis pacifica Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 82.
Chrysis hilaris Dahlbom, 1854. Hym. Europaea, t. 2, p. 103. N. syn.
Chrysis halictula Gribodo, 1874. Mus. Civ. Stor. Genova Ann. 6: 359. N. syn.

resecta Gribobo. Calif.
Chrysis resecta Gribodo, 1879. Mus. Civ. Stor. Nat. Genova. Ann. 14: 336.

semicuprea (Viereck.) Alta., N. Dak., N. Mex.
Olochrysis semicuprea Viereck, 1903. Amer. Ent. Soc. Trans. 29: 70. ♀.

smaragdicolor Walk. B. C., Calif., Utah, N. Mex., Colo., N. Dak.
Chrysis smaragdicolor Walker, 1866. *In* Lord, Naturalist in Vancouver Isl. and B. C., v. 2, p. 343.

sonorensis Cameron. Ariz., N. Mex.
Chrysis sonorensis Cameron, 1888. Biol. Cent.-Amer., Hym., v. 1, p. 461.

tota Aaron. Md., Iowa, Colo., Idaho, Utah, Calif.
Chrysis integra Cresson, 1865. Ent. Soc. Phila. Proc. 4: 306–307. ♂. Preocc.
Chrysis tota Aaron, 1885. Amer. Ent. Soc. Trans. 12: 228. N. name.
Chrysis elongata Mocsary, 1887. Termes. Fuzetek 11: 15. N. name. N. syn.

Subgenus CHRYSOGONA Foerster

Chrysogona Foerster, 1853. Naturh. Ver. Rheinlande, Verh. 10: 327.
Type: *Chrysogona gracillima* Foerster. Monob.
Gonochrysis Lichtenstein, 1876. Petites Nouv. Ent., v. 2, p. 27.
Type: *Chrysis albipennis* Klug. Desig. by Ashmead, N. syn. 1902.

Chrysidea Bischoff, 1913. Gen. Ins., fasc. 151, p. 34. N. syn.
Type: ***Chrysis (Spintharis) pumila*** Klug. Orig. desig.

californica Gribodo. Calif.
Chrysis Californica Gribodo, 1879. Mus. Civ. Stor. Nat. Genova, Ann. 14: 336. ♀.

densa Cresson. Wash., Oreg., Calif., Nev., Utah, Ariz., Colo., Tex.
Host: *Pseudodynerus quadrisectus* (Say).
Chrysis densa Cresson, 1865. Ent. Soc. Phila. Proc. 4: 307. ♀.
Biology: Ashmead, 1894. Psyche 7: 79.

discreta Aaron. N. Y., N. C.
Chrysis discreta Aaron, 1885. Amer. Ent. Soc. Trans. 12: 230. ♀.

faceta Aaron. Colo., Tex.
Chrysis faceta Aaron, 1885. Amer. Ent. Soc. Trans. 12: 229. ♂.

perpulchra Cresson. Throughout U. S. and Canada. Host: *Sceliphron cementarium* (Drury).
Chrysis perpulchra Cress., 1865. Ent. Soc. Phila. Proc. 4: 308. ♀.
Chrysis (Gonochrysis) kansensis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 193. N. syn.
Biology: Ashmead, 1894. Psyche 7: 79.

verticalis Patton. Throughout U. S. and Canada. Hosts: *Trypoxylon fastigium* Fox; *Trypoxylon frigidum* Sm.
Chrysis verticalis Patton, 1879. Canad. Ent. 11: 67. ♂.
Chrysis striatellus Norton, 1879. Amer. Ent. Soc. Trans. 7: 241. ♀.

Subgenus DICHRYSIS Lichtenstein

Dichrysis Lichtenstein, 1876. Petites Nouv. Ent., v. 2, p. 27. No species.
Type: ***Chrysis bihamata*** Spinola. Desig. by Bodenstein, 1939.

bigeloviae Cockerell. Calif., Ariz., N. Mex.
Chrysis (Dichrysis) bigeloviae Cockerell, 1897. Ann. Mag. Nat. Hist. 19: 401.

mesillae Cockerell. Ariz., N. Mex.
Chrysis (Dichrysis) mesillae Cockerell, 1894. Ent. News 5: 125.

quadrituberculata Cameron. Tex.
Chrysis quadrituberculata Cameron, 1888. Biol. Cent.-Amer. Hym., v. 1, p. 461.

Subgenus TRICHRYSIS Lichtenstein

Trichrysis Lichtenstein, 1876. Petites Nouv. Ent., v. 2, p. 27.
Type: ***Sphex cyanea*** Linnaeus. Monob.

mucronata Brullé. Calif., ?Canada.
Chrysis mucronata Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 45. ♀.
Chrysis lunigera Dahlbom, 1854. Hym. Europaea, t. 2, p. 194. ♀.
Chrysis selenia Costa, 1864. Ann. Mus. Zool. Napoli, 2: 67.

parvula Fabricius. U. S. and Canada east of the Rockies. Hosts: *Sceliphron cementarium* (Drury); *Hylaeus varifrons* (Cress.).
Chrysis parvula Fabricius, 1805. Systema Piezatorum, p. 176. ♀.
Pyria tridens Lepeletier, 1825. *In* Olivier, Encycl. Meth., Dict. Ins., v. 10, p. 495. ♀.
Chrysis carinata Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 82.
Chrysis truncata Guérin, 1842. Rev. Zool., p. 146. ♂ ♀.
Chrysis Mexicana Guérin, 1842. Rev. Zool., p. 147.
Chrysis tridentata Dahlbom, 1845. Dispos. Method. Spec. Hym., pt. 2, p. 13.
Chrysis unicolor Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 42. ♀.
Chrysis virens Cresson, 1865. Ent. Soc. Phila. Proc. 4: 309. ♀.
Chrysis Brullei Abeille de Perrin, 1879. Soc. Linn. Lyon, Ann. 26: 42. N. name.
Biology: Davidson, 1895. Psyche 7: 315.—Harrington, 1896. Canad. Ent. 28: 80.

Subgenus CHRYSIS Linnaeus

Chrysis Linnaeus, 1761. Fauna Suecica, Ed. 2, p. 414.
Type: ***Sphex ignita*** Linnaeus. Desig. by Latreille, 1810.

Tetrachrysis Lichtenstein, 1876. Petites Nouv. Ent., v. 2, p. 27.
Type: (***Chrysis aeruginosa*** Dahlbom)=***Chrysis succincta*** Linnaeus. Desig. by Ashmead, 1902.

aaroni Mocsary. Ohio, Mont., Utah.
Chrysis hirsuta Aaron, 1885. Amer. Ent. Soc. Trans. 12: 235. ♂ ♀. Preocc.
Chrysis (Tetrachrysis) aaroni Mocsary, 1889. Monog. Chrysid., p. 386. N. name.

alabamensis Mocsary. Ala.
Chrysis (Tetrachrysis) alabamensis Mocsary, 1914. Mus. Nat. Hungarici Ann. 12: 49. ♀.

alfkenella du Buysson. Calif.
Chrysis (Tetrachrysis) Alfkenella du Buysson, 1904. Rev. Ent. Caen 23: 266 ♂.

amala Rohwer. Colo.
Chrysis (Tetrachrysis) amala Rohwer, 1909. Psyche 16: 91. ♀.

canadensis du Buysson. Que.
Chrysis (Tetrachrysis) canadensis du Buysson, 1891. Rev. Ent. Caen 10: 37. ♀.

chalcopyga Mocsary. Colo.
Chrysis (Tetrachrysis) chalcopyga Mocsary, 1914. Mus. Nat. Hungarici Ann. 12: 48. ♀.

coerulans Fabricius. This species occurs in many inter-related forms throughout the U. S. and Canada. Hosts: *Sceliphron cementarium* (Drury); *Eumenes fraternus* Say.
Chrysis coerulans Fabricius, 1805. Systema Piezatorum, p. 172. ♀.
Chrysis bella Cresson, 1865. Ent. Soc. Phila. Proc. 4: 312. ♀.
Chrysis cessata du Buysson, 1891. Rev. Ent. Caen 10: 36. N. syn.
Chrysis (Tetrachrysis) conserta du Buysson, 1891. Rev. Ent. Caen 10: 37. ♀. N. syn.
Chrysis (Tetrachrysis) coerulans var. ***nanula*** Rohwer, 1909. Psyche, 16: 88. ♀. N. syn.
Biology: Ashmead, 1894. Psyche 7: 79.—Walsh, 1868. Amer. Ent. 1: 135.

conica Brullé. Va., Ga., Fla., Ky., Tenn., Tex.
Chrysis conica Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 32. ♂ ♀.
Chrysis peracuta Aaron, 1885. Amer. Ent. Soc. Trans. 12: 237. N. syn.
Chrysis peregrina du Buysson, 1887. Rev. d'Ent. 6: 188. ♀. N. syn.

decepta Rohwer. Colo.
Chrysis (Tetrachrysis) decepta Rohwer, 1909. Psyche 16: 90. ♀.

derivata du Buysson. Que.
Chrysis (Tetrachrysis) derivata du Buysson, 1891. Rev. Ent. Caen 10: 38. ♂.

dorsalis Aaron. B. C., Wash., Calif., Utah, Colo., Mont., Fla.
Chrysis dorsalis Aaron, 1885. Amer. Ent. Soc. Trans. 12: 234.

equidens Viereck. Kans.
Chrysis (Tetrachrysis) equidens Viereck, 1906. Amer. Ent. Soc. Trans. 32: 193.

falsifica du Buysson. Colo., Ariz.
Chrysis prasinus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 310. ♀. Preocc.
Chrysis falsifica du Buysson, 1891. Rev. Ent. Caen 10: 38. N. name.

florissanticola Rohwer. Colo., Utah.
Chrysis (Tetrachrysis) florissanticola Rohwer, 1909. Psyche 16: 88. ♂.

frey-gessneri Gribodo. Tex., N. Mex.
Chrysis (Tetrachrysis) frey-gessneri Gribodo, 1879. Mus. Civ. Stor. Nat. Genova, Ann. 14: 333. ♀.

inflata Aaron. Calif., Ariz., Utah, Colo.
Chrysis inflata Aaron, 1885. Amer. Ent. Soc. Trans. 12: 237. ♂ ♀.

kahli Viereck. Ariz., Kans.
Chrysis (*Tetrachrysis*) *kahli* Viereck, 1906. Amer. Ent. Soc. Trans. 32: 194.

laminifera Bischoff. N. C., S. C., Fla., Tex.
Chrysis (*Tetrachrysis*) *laminifera* Bischoff, 1910. Berlin Zool. Mus. Mitt. 4: 460. ♀.

lauta Cresson. Wash., Calif., Ariz., Colo., Tex., Kans., N. C.
Chrysis lauta Cresson, 1865. Ent. Soc. Phila. Proc. 4: 310. ♀.
?*Chrysis pulcherrima* Cresson, 1865. Ent. Soc. Phila. Proc. 4: 311. ♂. Preocc.
Chrysis chlorophana Mocsary, 1887. Termes. Fuzetek. 11: 16.

montana Aaron. Generally distributed throughout U. S.
Chrysis montana Aaron, 1885. Amer. Ent. Soc. Trans. 12: 234. ♀.

nitidula Fabricius. Que. to N. C., west to Ont., Mich. and Ohio; B. C. Host: *Ancistrocerus catskill* (Sauss.).
Chrysis nitidula Fabricius, 1775. Systema Ent. p. 359.
Chrysis cyanea Villers, 1789. Caroli Linnaei Ent., v. 3, p. 257.
Chrysis iris Christ, 1791. Naturgesch. Class. Nomencl. Ins., p. 405.
Chrysis cyanochroa Foerster, 1863. Naturh. Ver. Rheinlande Verh. 10: 316. ♀.
Chrysis soluta Rodoszkowski, 1866. Soc. Ent. Rossica Horae. 3: 305. ♀.
Biology: Harrington, 1896. Canad. Ent. 28: 79.

nokomis Rohwer. Colo.
Chrysis (*Tetrachrysis*) *nokomis* Rohwer, 1909. Psyche 16: 89. ♂ ♀.

nortoni Aaron. Canada, Oreg., Calif., Utah, Mont., Colo., Ill., Pa., N. Y., Maine.
Chrysis Nortoni Aaron, 1885. Amer. Ent. Soc. Trans. 12: 237. ♂ ♀.

pattonella Viereck. Kans.
Chrysis (*Tetrachrysis*) *pattonella* Viereck, 1906. Amer. Ent. Soc. Trans. 32: 194.

pattoni Aaron. Mich., Colo.
Chrysis Pattoni Aaron, 1885. Amer. Ent. Soc. Trans. 12: 235. ♀.

pellucidula Aaron. Va., N. C.
Chrysis pellucidula Aaron, 1885. Amer. Ent. Soc. Trans. 12: 235. ♀

praticola Mocsary. Tex.
Chrysis (*Tetrachrysis*) *praticola* Mocsary, 1914. Mus. Nat. Hungarici Ann. 12: 50. ♂ ♀.

propria Aaron. Calif., Ariz., N. Mex., Colo., Mont., Tex., S. Dak., Iowa.
Chrysis propria Aaron, 1885. Amer. Ent. Soc. Trans. 12: 238. ♂ ♀.

provancheri Schulz. Canada, Maine.
Chrysis aurichalcea Provancher, 1881. Canad. Ent. 12: 300. ♀. Preocc.
Chrysis Provancheri Schulz, 1906. Spolia Hym., p. 154. N. name.

scitula Cresson. Colo., Mont.
Chrysis scitula Cresson, 1865. Ent. Soc. Phila. Proc. 4: 308. ♀.
Chrysis meta Aaron, 1885. Amer. Ent. Soc. Trans. 12: 234. ♂ ♀. N. syn.

sejuncta Mocsary. Mo.
Chrysis (*Tetrachrysis*) *sejuncta* Mocsary, 1914. Mus. Nat. Hungarici Ann. 12: 51. ♀.

servillei Brullé. "America Bor."
Chrysis Servillei Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 37.

snowi Viereck. Kans.
Chrysis (*Tetrachrysis*) *snowi* Viereck, 1906. Amer. Ent. Soc. Trans. 32: 195.

submontana Rohwer. Colo.
Chrysis (*Tetrachrysis*) *submontana* Rohwer, 1909. Psyche 16: 91.

tenuicornis Taylor. Oreg.
Chrysis (*Tetrachrysis*) *tenuicornis* Taylor, 1924. Calif. Acad. Sci. Proc. (4) 13: 327. ♀.

tripartita Aaron. Ariz.
Chrysis tripartita Aaron, 1885. Amer. Ent. Soc. Trans. 12: 238. ♀.

venusta Cresson. Generally throughout the U. S.
Chrysis venusta Cresson, 1865. Ent. Soc. Phila. Proc. 4: 311. ♂.

Subgenus PYRIA Lepeletier and Serville

Pyria Lepeletier and Serville, 1828. Encycl. Meth., Ins., v. 10, p. 494.
Type: (*Pyria armata* Lepeletier and Serville)=*Chrysis lincea* Fabricius. Desig. by Ashmead, 1902.
Hexachrysis Lichtenstein, 1876. Petites Nouv. Ent., 2: 27.
Type: (*Chrysis micans* Rossi)=*Chrysis sexdentata* Christ. Desig. by Bodenstein 1939.

clara Cresson. Wash., Colo., Ariz., Tex., Kans., N. C.
Chrysis clara Cresson, 1865. Ent. Soc. Phila. Proc. 4: 313. ♀.

cognata Gribodo. "Patria ignota, sed sine dubio America."
Chrysis cognata Gribodo, 1879. Mus. Civ. Stor. Nat. Genova, Ann. 14: 328.

fabricii Mocsary. Calif., Ariz., Kans., Iowa, Tenn., N. C., Ga., Fla.
Chrysis sexdentata Fabricius, 1798. Sup. Ent. System., p. 258. Preocc.
Chrysis Fabricii Mocsary, 1882. Chrys. faun. Hungar. p. 46, 71, nota. N. name.
Chrysis (*Hexachrysis*) *dromeda* du Buysson, 1897. Soc. Ent. France Ann. 66: 541. ♀.

inaequidens Dahlbom. N. Y., Ga.
Chrysis inaequidens Dahlbom, 1854. Hym. Europaea, t. 2, p. 334. ♂.

intricata Brullé. Calif., Ariz., Tex., "Dak.," Iowa, Ohio, N. C., Ga.
Chrysis intricata Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 25. ♀.

nana Mocsary. Tex.
Chrysis (*Hexachrysis*) *nana* Mocsary, 1913. Mus. Nat. Hungarici Ann. 11: 33. ♂.

serrata Taylor. Calif., Oreg., Wash.
Chrysis (*Hexachrysis*) *serrata* Taylor, 1924. Calif., Acad. Sci. Proc. (4) 13: 329. ♂ ♀.

smaragdula Fabricius. N. J., Pa., Del., Md., Va., N. C., S. C., Fla., Ky., La., N. Mex., Utah.
Chrysis smaragdula Fabricius, 1775. Systema Ent., p. 357.
Chrysis pensylvanica Lepeletier, 1846. Hist. Nat. Ins. Hym., v. 4, p. 24. ♀.

texana Gribodo. Calif., Ariz., Tex., Kans., Ohio, N. C.
Chrysis Texana Gribodo, 1879. Mus. Civ. Stor. Nat. Genova, Ann. 14: 829. ♂ ♀.

Genus STILBUM Spinola

Stilbum Spinola, 1806. Insectorum Ligurae, v. 1, p. 9.
Type: (*Stilbum calens* Spinola)=*Chrysis cyanura* Foerster. Desig. by Latreille, 1810.

cyanurum var. **amethystinum** (Fabricius). "Amer., Ont."
Chrysis amethystina Fabricius, 1775. Systema Ent., p. 359.
Stilbum splendidulum Westwood, 1842. *In* Donovan, Epitome Nat. Hist. Ins. India, p. 88.

Genus PARNOPES Latreille

Parnopes Latreille, 1796. Precis. Caract. Gen. Ins., p. 126. (No species). Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 317.
Type: (*Chrysis carnea* Fabricius)=*Chrysis grandior* (Pallas). First included species.
Revision: Viereck, 1904. Trans. Amer. Ent. Soc. 30: 245–250.

aglaspidula Melander and Brues. N. Y., Ga., Mich., Ill. ♀.
Parnopes aglaspidula Melander and Brues, 1902. Biol. Bul. 3: 38.

arizonensis Viereck. Ariz.
Parnopes arizonensis Viereck, 1904. Amer. Ent. Soc. Trans. 30: 249. ♂ ♀.

chrysoprasinus Smith. Md., N. C.
Parnopes chrysoprasinus Smith, 1874. Ent. Soc. London, Trans. p. 454, n. 8. ♂.

concinna Viereck. Ariz.
Parnopes concinna Viereck, 1904. Amer. Ent. Soc. Trans. 30: 248. ♀.

diadema Viereck. Ariz.
Parnopes diadema Viereck, 1904. Amer. Ent. Soc. Trans. 30: 248. ♂ ♀.

edwardsi (Cresson). B. C., Wash., Oreg., Calif., Idaho.
Euchroeus Edwardsii Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. iv.

excurvata Viereck. Ariz.
Parnopes excurvata Viereck, 1904. Amer. Ent. Soc. Trans. 30: 250. ♀.

festivus Cockerell. N. Mex.
Parnopes festivus Cockerell, 1894. Ent. News 5: 328. ♀.

hageni Viereck. Wash., Oreg.
Parnopes hageni Viereck, 1904. Amer. Ent. Soc. Trans. 30: 246. ♂ ♀.

henshawi Viereck. Wash., Oreg.
Parnopes henshawi Viereck, 1904. Amer. Ent. Soc. Trans. 30: 247. ♀.

taeniata Viereck. Wash.
Parnopes taeniata Viereck, 1904. Amer. Ent. Soc. Trans. 30: 249. ♀.

westcotti Melander and Brues. Calif., Ariz., Tex.
Parnopes westcotti Melander and Brues, 1902. Biol. Bul. 3: 39. ♂ ♀.

Family CLEPTIDAE

Genus CLEPTES Latreille

Cleptes Latreille, 1802. Hist. Nat. Crust. Ins. 3: 316.
Type: ***Sphex semiaurata*** Linnaeus. Monob.

Parasitic on sawfly larvae.

alienus Patton. Mont., Wyo.
Cleptes aliena Patton, 1879. Canad. Ent. 11: 66. ♀.

blaisdelli Bridwell. Calif.
Cleptes blaisdelli Bridwell, 1919. Hawaii. Ent. Soc. Proc. 4: 37. ♂.

insperatus Aaron. Mont.
Cleptes insperata Aaron, 1885. Amer. Ent. Soc. Trans. 12: 212. ♀.

provancheri Aaron. Canada, Colo., "Wash. Ter."
Cleptes americana Provancher, 1881. Nat. Canad. 12: 304. ♀. Preocc.
Cleptes Provancheri Aaron, Amer. Ent. Soc. Trans. 12: 212. N. name.

purpuratus Cresson. Wash., Oreg., Calif., Colo., Nev.
Cleptes purpurata Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. x. ♀.
Cleptes Americana Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. x. ♂ ♀.

speciosus Aaron. Mont.
Cleptes speciosa Aaron, 1885. Amer. Ent. Soc. Trans. 12: 212. ♀.

Genus MESITIOPTERUS Ashmead

Mesitiopterus Ashmead, 1902. Canad. Ent. 34: 231.
Type: ***Mesitiopterus Kahlii*** Ashmead. Orig. desig.

kahlii Ashmead. Kans. Host: *Diapheromera femorata* Say, eggs.
Mesitiopterus Kahlii Ashmead, 1902. Canad. Ent. 34: 231. ♂.
Biology: Milliron, 1950. Ent. Soc. Wash. Proc. 52: 47.

Superfamily BETHYLOIDEA[25]

Family BETHYLIDAE

This family, and even its North American representation, is by no means as small as is suggested by the following record of described species.

[25]By C. F. W. Muesebeck and Luella M. Walkley, U. S. Bureau of Entomology and Plant Quarantine.

The Nearctic Bethylidae have never been intensely collected or critically studied, and comparatively little is known about their biology. The group should prove a very attractive one to an energetic and competent student of Hymenoptera. Apparently its closest affinities are with the Cleptidae in the Chrysidoidea.

Biology: Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 16–20.
Morphology: Reid, 1941. Roy. Ent. Soc. London Trans. 9: 402–409.
Taxonomy: Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 27–76.—Kieffer, 1914. Das Tierreich, Lief. 41, pp. 1–595.—Richards, 1939. Roy. Ent. Soc. London, Trans. 89: 185–344.

Genus CEPHALONOMIA Westwood

Cephalonomia Westwood, 1853. Mag. Nat. Hist. 6: 420.
Type: ***Cephalonomia formiciformis*** Westwood. Monob.
Holopedina Foerster, 1850. Naturh. Ver. Rheinlande Verh. 7: 502.
Type: ***Holopedina polypori*** Foerster. Monob.

cynipsiphila (Ashmead). Fla. Host: Gall of *Disholcaspis omnivora* (Ashm.).
Sclerochroa cynipsiphila Ashmead, 1887. Ent. Amer. 3: 75. ♀.

gallicola (Ashmead). Mass., D. C., Fla., Ill., Ala., La., Nebr.; Europe; Asia; probably almost cosmopolitan. Hosts: Gall of *Andricus foliatus* Ashm.; *Stegobium paniceum* (L.); *Lasioderma serricorne* (F.). There are many reports of this species stinging man, especially where the adults have become abundant in houses due to a persistent infestation of one of the hosts.
Sclerochroa gallicola Ashmead, 1887. Ent. Amer. 3: 75. ♀.
Holopedina nubilipennis Ashmead, 1887. Ent. Amer. 3: 97. ♀.
?***Cephalonomia xambeui*** Giard, 1898. Soc. Ent. France Bul., p. 50. ♀ ♂.
Cephalonomia quadridentata Duchaussoy, 1917. Soc. Hist. Nat. Afrique du Nord Bul. 9: 111. ♀.
Cephalonomia caesarorum Van Emden, 1931. Ztschr. Morph. u. Okol. Tiere 23: 431.
Biology: Van Emden, 1931. Ztschr. Morph. u. Ökol. Tiere 23: 425–574.—Kearns, 1934. Jour. Econ. Ent. 27: 801–806.
Morphology: Van Emden, 1931. Ztschr. Morph. u. Ökol. Tiere 23: 425–574.—Grandi, 1932. Lab. Ent. R. Ist. Sup. Agr. Bologna Bol. 5: 113–115.

hyalinipennis Ashmead. Fla. (Jacksonville). Hosts: Galls of *Amphibolips cinerea* (Ashm.); *Disholcaspis omnivora* (Ashm.); *Hypothenemus* spp.; *Scolytus rugulosus* Ratz.
Cephalonomia hyalinipennis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 49. ♂ ♀.

tarsalis (Ashmead). D. C., Ind., Ill., Kans. Hosts: *Oryzaephilus surinamensis* (L.); *Sitophilus oryza* (L.).
Ateleopterus tarsalis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 45. ♀ ♂.
Cephalonomia carinata Kieffer, 1907. Berlin. Ent. Ztschr. 51: 295. ♀.
Cephalonomia kiefferi Fouts, 1920. Ent. Soc. Wash. Proc. 22: 77. ♀ ♂.
Biology: Powell, 1938. Ent. Soc. Amer. Ann. 31: 44–49.

utahensis Brues. Utah (Milford).
Cephalonomia utahensis Brues, 1909. Wis. Nat. Hist. Soc. Bul. 6: 154. ♀.

waterstoni Gahan. Colo., Kans., Ill., La. Host: *Laemophloeus ferrugineus* (Steph.).
Cephalonomia waterstoni Gahan, 1931. Wash. Acad. Sci. Jour. 21: 219. ♀.

Genus GLENOSEMA Kieffer

Glenosema Kieffer, 1905. Soc. Sci. Bruxelles Ann. 29: 100. No species.
Type: ***Glenosema nigra*** Kieffer, 1906. First included species.
Arysepyris Kieffer, 1905. Soc. Sci. Bruxelles Ann. 29: 102.
Type: ***Arysepyris merceti*** Kieffer. Monob. and orig. desig.

californicus (Bridwell). Calif.
Arysepyris californicus Bridwell, 1919. Hawaii. Ent. Soc. Proc. 4: 34. ♀.

Genus SCLERODERMA Latreille

Sclerodermus Latreille, 1809. Gen. Crust. Ins., v. 4, p. 118.
Type: ***Sclerodermus domesticus*** Latreille. Monob.
Scleroderma Oken, 1817. Isis 8: 1178. Emend.
Schlerochroa Foerster, 1850. Naturh. Ver. Rheinlande Verh. 7: 501. Unnecessarily proposed as a new name for *Sclerodermus* Latr.
Type: ***Sclerodermus domesticus*** Latreille. Autob.
Schleroderma A. Costa, 1862. Annuario Mus. Zool. Napoli 2: 131. Misspelling.

Species of this genus often develop on larvae of Cerambycidae living in woodwork of houses; and the adult parasites have frequently been reported as stinging man.

carolinense (Ashmead), n. comb. N. Y. to Ga. Hosts: Cerambycidae.
Dissomphalus carolinensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 42, 43. ♀.
Ateleopterus virginiensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 45. ♂ ♀. N. syn.

macrogaster (Ashmead). D. C., Va., N. C., Fla., Miss., Tex. Host: *Megacyllene antennatus* (White).
Sclerochroa macrogaster Ashmead, 1887. Ent. Amer. 3: 75. ♀.

Genus LAELIUS Ashmead

Laelius Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 50.
Type: ***Laelius trogodermatis*** Ashmead. Orig. desig.
Paralaelius Kieffer, 1905. Soc. Sci. Bruxelles Ann. 29: 129. N. syn.
Type: ***Bethylus pedatus*** Say. Desig. by Kieffer, 1914.
Revision: Muesebeck, 1939. Biol. Soc. Wash. Proc. 52: 171-176.

centratus (Say). Fla., Ind., Colo.
Bethylus centratus Say, 1836. Boston Jour. Nat. Hist. 1: 281.

occidentalis Whittaker. B. C. (Chilliwack).
Laelius occidentalis Whittaker, 1928. Ent. Soc. London, Trans., p. 387. ♀.

pedatus (Say), n. comb. N. J., N. Y., D. C., Va., S. C., Fla., Ind., Colo. Host: *Anthrenus verbasci* (L.).
Bethylus pedatus Say, 1836. Boston Jour. Nat. Hist. 1: 280.
Ateleopterus nubilipennis Ashmead, 1887. Ent. Amer. 3: 97. ♀. N. syn.
Laelius tricarinatus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 51. ♂ ♀. N. syn.
Laelius rufipes Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 51. ♀. Preocc. N. syn.
Laelius nigripilosus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 52. ♂ ♀. N. syn.
Bethylus constrictus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 53. ♀. N. syn.
Laelius ashmeadi Kieffer, 1908. *In* Wytsman, Gen. Ins., fasc. 76, p. 38. N. name. N. syn.
Laelius fumipennis Brues, 1910. Wis. Nat. Hist. Soc. Bul. (Ser. 2) 8: 45. ♀. N. syn.

trogodermatis Ashmead. Que., D. C., Fla. Host: *Trogoderma versicolor* Creutz.
Laelius trogodermatis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 51. ♂ ♀.

utilis Cockerell. Md., D. C., Va., N. C. Hosts: *Trogoderma versicolor* Creutz.; ?*Bruchus brachialis* Fahr.
Laelius utilis Cockerell, 1920. Canad. Ent. 52: 34. ♀.

voracis Muesebeck. D. C. Host: *Anthrenus vorax* (Waterh.).
Laelius voracis Muesebeck, 1939. Biol. Soc. Wash. Proc. 52: 172. ♀ ♂.

Genus EPYRIS Westwood

Epyris Westwood, 1832. London, Edinb. and Dublin Phil. Mag. and Jour. (ser. 3) 1 (2): 129.
Type: ***Epyris niger*** Westwood. Monob.
Empyris (!) Melander and Brues, 1903. Biol. Bul. 5: 23.

bifoveolatus (Ashmead). Ont., Va., Ga., Fla.
Mesitius bifoveolatus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 66. ♂ ♀.

brachypterus (Ashmead). "Carolina," D. C.
Mesitius brachypterus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 66. ♀.

californicus (Ashmead). Calif., Ariz.
Mesitius californicus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 65. ♀.
Biology: Essig and Michelbacher, 1932. Science 76: 407–408.

clarimontis Kieffer. Calif. (Claremont).
Epyris clarimontis Kieffer, 1906. Berlin. Ent. Ztschr. 50: 243. ♀.

eriogoni Kieffer. Calif. (Claremont).
Epyris eriogoni Kieffer, 1906. Berlin. Ent. Ztschr. 50: 245. ♂.

gracilicollis Kieffer. Calif. (San Mateo).
Epyris longicollis Kieffer, 1906. Berlin. Ent. Ztschr. 50: 244. ♀. Preocc.
Epyris gracilicollis Kieffer, 1908. *In* Wytsman, Gen. Ins., fasc. 76, p. 28. N. name.

minutus (Ashmead). Va. (Arlington).
Mesitius minutus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 65. ♂.

monticola Ashmead. Colo.
Epyris monticola Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 8. ♂.

myrmecophilus (Brues). Tex.
Mesitius myrmecophilus Brues, 1903. Amer. Ent. Soc. Trans. 29: 124. ♀.

nevadensis (Ashmead). Nev.
Mesitius nevadensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 64. ♀.

nudicornis Kieffer. Nev. (Ormsby).
Epyris nudicornis Kieffer, 1906. Berlin. Ent. Ztschr. 50: 245. ♂.

rufipes (Say). "North-West Territory"; Mo.
Bethylus rufipes Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 329.

texanus (Ashmead). Tex.
Mesitius texanus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 67. ♀.

vancouverensis (Ashmead). B. C.
Mesitius vancouverensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 64. ♀.

Genus RHABDEPYRIS Kieffer

Rhabdepyris Kieffer, 1904. Soc. Hist. Nat. Metz. Bul. (2) 11: 32.
Type: *Rhabdepyris myrmecophilus* Kieffer. Desig. by Kieffer, 1906.
Trichotepyris Kieffer, 1906. *In* André, Spec. Hym. Eur. Alg., v. 9, p. 376.
No species. Proposed as a subgenus of *Rhabdepyris*.
Type: *Rhabdepyris pallidipennis* Kieffer, 1906. Present desig.

aeneiceps (Ashmead). Ga., Fla.
Epyris aeneiceps Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 58, 59. ♀.

amabilis Fouts. Md. (Glen Echo).
Rhabdepyris amabilis Fouts, 1927. Ent. Soc. Wash. Proc. 29: 165. ♀.

analis (Cresson). Tex.
Epyris analis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 193. ♀.

columbianus (Ashmead). D. C., Fla.
Epyris columbianus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 58, 60. ♂ ♀.

grandis (Ashmead). Fla. (Jacksonville).
Goniozus grandis Ashmead, 1887. Ent. Amer. 3: 76. ♂ ♀.

haemorrhoidalis Kieffer. Tex.
Rhabdepyris haemorrhoidalis Kieffer, 1904. Arkiv. för Zool. 1: 528. ♀.

megacephalus (Ashmead). Calif.
Epyris megacephalus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 58, 61. ♀.

occidentalis (Ashmead). Calif., Tex.
Epyris occidentalis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 58, 59. ♂ ♀.

zeae Turner and Waterson. Fla., Ind., Ill., La., Tex. Cosmopolitan. Hosts: *Sitophilus oryza* (L.); *Tribolium castaneum* (Hbst.); *T. confusum* Duv.; *Laemophloeus ferrugineus* (Steph.).
Rhabdepyris zeae Turner and Waterson, 1921. Rpt. Grain Pests (War) Com. [Gt. Brit.], No. 9, p. 29. ♀.

Genus HOLEPYRIS Kieffer

Holepyris Kieffer, 1904. Mus. Civ. Stor. Nat. Genova Ann. 41: 390.
Type: ***Holepyris africanus*** Kieffer, 1904. Desig. by Kieffer, 1906.

coronatus (Ashmead), n. comb. Md. (Bladensburg). Host: *Catogenus rufus* (F.).
Apenesia coronata Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 47. ♂.

floridanus (Ashmead). Fla.
Isobrachium floridanum Ashmead, 1887. Ent. Amer. 3: 76. ♂.

marylandicus Fouts. Md., N. C.
Holepyris marylandicus Fouts, 1928. Ent. Soc. Wash. Proc. 30: 125. ♀.

punctifrons Fouts. Fla. (Hawthorne).
Holepyris punctifrons Fouts, 1927. Ent. Soc. Wash. Proc. 29: 166. ♀.

subapterus (Melander and Brues). Mass. Host: *Halictus* (*Chloralictus*) *pruinosus* (Rob.).
Empyris (!) ***subapterus*** Melander and Brues, 1903. Biol. Bul. 5: 23. ♀.

Genus PSILEPYRIS Kieffer

Psilepyris Kieffer, 1913. Lab. Zool. Gen. e Agr. Portici Bol. 7: 108.
Type: ***Epyris indivisus*** Kieffer. Desig. by Kieffer, 1914.

indivisus (Kieffer). Calif.
Epyris indivisus Kieffer, 1905. Berlin. Ent. Ztchr. 50: 243. ♂.

Genus CHLOREPYRIS Kieffer

Chlorepyris Kieffer, 1913. Lab. Zool. Gen. e Agr. Portici Bol. 7: 108.
Type: ***Epyris semiviridis*** Kieffer. Desig. by Kieffer, 1914.

fulgens (Brues). Tex. (Brownsville).
Epyris fulgens Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 99. ♀.

Genus XANTHEPYRIS Kieffer

Xantepyris Kieffer, 1913. Lab. Zool. Gen. e Agr. Portici Bol. 7: 108.
Type: ***Epyris flaviventris*** Kieffer. Monob.
Xanthepyris Kieffer, 1914. Das Tierreich, Lief. 41, p. 417. Emend.
Type: ***Epyris flaviventris*** Kieffer. Autob.

flaviventris (Kieffer). Tex.
Epyris flaviventris Kieffer, 1904. Arkiv för Zool. 1: 526. ♂.

Genus ACREPYRIS Kieffer

Acrepyris Kieffer, 1905. *In* André, Spec. Hym. Eur. Alg., v. 9, p. 249.
Type: ***Epyris reticulatus*** Kieffer. Monob. and orig. desig.

reticulatus (Kieffer). Tex.
Epyris reticulatus Kieffer, 1904. Arkiv för Zool. 1: 527. ♂.

Genus ANISEPYRIS Kieffer

Anisepyris Kieffer, 1905. *In* André, Spec. Hym. Eur. Alg., v. 9, p. 248.
Type: ***Epyris amazonicus*** Westwood. Monob.

pulchellus Fouts. Md. (Glen Echo).
Anisepyris pulchellus Fouts, 1928. Ent. Soc. Wash. Proc. 30: 126. ♀.

punctaticeps Kieffer. Nev. (Ormsby).
Anisepyris punctaticeps Kieffer, 1906. Soc. Sci. Bruxelles Ann. 30: 139. ♂.

rugosicollis Brues. Tex. (Brownsville).
Anisepyris rugosicollis Brues, 1908. Wis. Nat. Hist. Soc. Bul. (2) 6: 48. ♀.

subviolaceus Kieffer. Colo.
Anisepyris subviolaceus Kieffer, 1910. Soc. Ent. France Ann. 79: 39. ♀.

Genus PLASTANOXUS Kieffer

Plastanoxus Kieffer, 1905. *In* André, Spec. Hym. Eur. Alg., v. 9, p. 244.
Type: *Anoxus chittendenii* Ashmead. Desig. by Gahan, 1931.

chittendenii (Ashmead). N. Y., Ont., Miss. Host: ?*Cis fuscipes* Mellié.
Anoxus chittendenii Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 68. ♂.

laevis (Ashmead). D. C. (Washington).
Anoxus laevis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 68. ♀.

westwoodi (Kieffer). D. C., Ga. Host: *Laemophloeus pusillus* (Schönh.).
Cephalonomia westwoodi Kieffer, 1914. Das Tierreich, Lief. 41, p. 248. ♂ ♀.

Genus PRISTOCERA Klug

Pristocera Klug, 1808. Mag. Gesell. Naturf. Freunde Berlin 2: 49.
Type: *Bethylus depressus* Fabricius. Monob.

armifera (Say). N. H. to Fla.; Ind., Kans., Tex. Host: *Limonius agonus* (Say).
Bethylus armiferus Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 80. ♂.
Epyris laeviventris Cresson, 1872. Amer. Ent. Soc. Trans. 4: 193. ♂.

atra Klug. Pa., Md., Va., Ga., Fla., Miss., Kans., Tex.
Pristocera atra Klug, 1810. Beitr. Naturk., v. 2, p. 206. ♀.

hyalina Brues. Tex.
Pristocera hyalina Brues, 1906. Wis. Nat. Hist. Soc. Bul. 4: 143. ♂.

Genus PSEUDISOBRACHIUM Kieffer

Pseudisobrachium Kieffer, 1904. Mus. Civ. Stor. Nat. Genova Ann. (3a) 1: 368.
Type: *Pseudisobrachium laticeps* Kieffer. Desig. by Kieffer, 1906.
Revision: Fouts, 1928. Ent. Soc. Wash. Proc. 30: [121]–124.

agile Whittaker. B. C.
Pseudisobrachium agilis Whittaker, 1928. Ent. Soc. London Trans. 2: 386. ♂.

flavicoxis Fouts. Kans. (Baldwin).
Pseudisobrachium flavicoxis Fouts, 1928. Ent. Soc. Wash. Proc. 30: 122. ♀.

flavinervis Fouts. Calif. (Lone Star).
Pseudisobrachium flavinervis Fouts, 1928. Ent. Soc. Wash. Proc. 30: 123. ♂.

magnum (Ashmead). Wash. (Spokane Falls).
Isobrachium magnum Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 36. ♂.

mandibulare (Ashmead). D. C., Fla., Ill. In colony of *Camponotus herculeanus pennsylvanicus* (Deg.).
Isobrachium mandibulare Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 38. ♂ ♀.

montanum (Ashmead). Mont., Ariz. In colony of *Formica rufibarbis* F.
Isobrachium montanum Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 39. ♀ ♂.

myrmecophilum (Ashmead). Pa., D. C., Md., Tex., Mont., Ariz., Canada. In colony of *Formica rufibarbis* F.
Isobrachium myrmecophilum Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 37. ♂ ♀.

paucipunctatum Fouts. Utah (Salt Lake).
Pseudisobrachium paucipunctata Fouts, 1928. Ent. Soc. Wash. Proc. 30: 122. ♀.

puncticeps Fouts. Md. (Glen Echo).
Pseudisobrachium puncticeps Fouts, 1928. Ent. Soc. Wash. Proc. 30: 123. ♂.

rufiventre (Ashmead). Va., Tex., Mont., N. Mex., Ariz. In colony of *Formica rufa obscuripes* Forel.
Isobrachium rufiventre Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 38. ♀ ♂.

rugosulum Fouts. Pa. (Mount Holly Springs).
Pseudisobrachium rugosulum Fouts, 1928. Ent. Soc. Wash. Proc. 30: 124. ♂.

Genus DISSOMPHALUS Ashmead

Dissomphalus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 41.
Type: *Dissomphalus xanthopus* Ashmead. Orig. desig.

apertus Kieffer. Ark. (Fayetteville).
Dissomphalus apertus Kieffer, 1914. Soc. Ent. France Bul. 1: 50. ♂.

californicus Ashmead. Calif.
Dissomphalus californicus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 42. ♂.

xanthopus Ashmead. Md., Va.
Dissomphalus xanthopus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 42. ♀ ♂.

Genus BETHYLUS Latreille

Bethylus Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 315.
Type: *Omalus fuscicornis* Jurine. Desig. by Internatl. Comn. Zool. Nomencl. Op. 153, 1944.
Perisemus Foerster, 1856. Hym. Stud., v. 2, pp. 95, 96.
Type: *Perisemus triareolatus* Foerster. Monob.
Episemus Thomson, 1862. Öfvers. k. Vetensk. Akad. Förh. 18: 452.
Type: *Episemus variabilis* Thomson, 1862. Fixed by Richards, 1939.

amoenus Fouts. N. Y. ("Slaterville-Caroline").
Bethylus amoenus Fouts, 1928. Ent. Soc. Wash. Proc. 30: 127. ♀ ♂.

brachypterus Whittaker. B. C. (Chilliwack).
Bethylus brachypterus Whittaker, 1928. Ent. Soc. London Trans. 2: 385. ♀ ♂.

flavicornis Whittaker. B. C. (Chilliwack).
Bethylus flavicornis Whittaker, 1928. Ent. Soc. London Trans. 2: 385. ♂ ♀.

Genus DIGONIOZUS Kieffer

Digoniozus Kieffer, 1905. *In* André, Spec. Hym. Eur. Alg., v. 9, p. 245.
Type: *Perisemus oregonensis* Ashmead. Monob.

oregonensis (Ashmead). Oreg. (Portland).
Perisemus oregonensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 70. ♀.

Genus GONIOZUS Foerster

Goniozus Foerster, 1856. Hym. Stud., v. 2, p. 96.
Type: *Bethylus claripennis* Foerster, 1851. Desig. by Ashmead, 1893.
Progoniozus Kieffer, 1905. Soc. Sci. Bruxelles Ann. 29: 105. N. syn.
Type: *Perisemus floridanus* Ashmead, 1887. Orig. desig.
Revision: Fouts, 1928. Ent. Soc. Wash. Proc. 30: 127–132.

brevinervis Fouts. Ohio, N. J. Hosts: *Coleophora* sp.; *Aroga trialbamaculella* (Chamb.).
Goniozus brevinervis Fouts, 1928. Ent. Soc. Wash. Proc. 30: 127, 128. ♀ ♂.

clarimontis Kieffer. Calif. (Claremont).
Goniozus clarimontis Kieffer, 1906. Berlin. Ent. Ztschr. 50: 253. ♀.

columbianus Ashmead. N. J., D. C., Va., Utah. Host: *Ancylis comptana fragariae* (W. and R.).
Goniozus columbianus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 76. ♂ ♀.
Perisemus minimus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 71. ♀. N. syn.

electus Fouts. La. (Bogalusa). Host: *Rhyacionia frustrana* (Comst.).
Goniozus electus Fouts, 1928. Ent. Soc. Wash. Proc. 30: 128, 132. ♀ ♂.

flavipes Fouts. Kans. (Junction City).
Goniozus flavipes Fouts, 1928. Ent. Soc. Wash. Proc. 30: 128, 130. ♀ ♂.

floridanus (Ashmead), n. comb. Fla. (Jacksonville).
Perisemus floridanus Ashmead, 1887. Ent. Amer. 3: 76. ♂ ♀.

foveolatus Ashmead. Ont. to Fla., west to Sask. and Tex.; Ariz. Hosts: *Acrobasis caryae* Grote; *Polychrosis viteana* (Clem.); *Coleophora malivorella* Riley; *Ancylis comptana fragariae* (W. and R.); *Anchylopera nubeculana* Clem.; *Grapholitha molesta* (Busck); *Acrobasis caryivorella* Rag.; *Gracilaria negundella* Chamb.; *Nemapogon granella* (L.); *Laspeyresia caryana* (Fitch).
Goniozus foveolatus Ashmead, 1887. Ent. Amer. 3: 76. ♀.
Goniozus hortorum Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 150. ♀.

gallicola Fouts. Oreg., Calif. Hosts: *Cynips maculipennis* Gill.; ?*Melissopus latiferreanus* (Wlsm.).
Goniozus gallicola Fouts, 1942. Ent. Soc. Wash. Proc. 44: 168. ♀.

hubbardi Howard. Fla. Hosts: *Platynota rostrana* (Wlkr.); *Platoeceticus gloveri* Pack.
Goniozus hubbardi Howard, 1885. *In* Hubbard, Ins. Affecting the Orange, p. 217. ♀.

longiceps Kieffer. Tex.
Goniozus longiceps Kieffer, 1904. Arkiv för Zool. 1: 529. ♀.

longinervis Fouts. Nebr., S. Dak., Calif. Hosts: *Rhyacionia frustrana bushnelli* (Busck); *Argyrotaenia citrana* (Fern.).
Goniozus longinervis Fouts, 1928. Ent. Soc. Wash. Proc. 30: 128, 131. ♀ ♂.

megacephalus Ashmead. Fla. (Key West).
Goniozus megacephalus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 74. ♀.
Goniozus megalocephalus Schulz, 1906. Spolia Hym., p. 152. Emend.

mellipes (Ashmead), n. comb. Fla. (Jacksonville).
Perisemus mellipes Ashmead, 1887. Ent. Amer. 3: 76. ♀.

occipitalis Kieffer. Nev. (Ormsby).
Goniozus occipitalis Kieffer, 1906. Berlin. Ent. Ztschr. 50: 252. ♀.

platynotae Ashmead. N. Y. to Fla., west to Kans. and La.; also Utah and Ariz. Hosts: *Platynota idaeusalis* (Wlkr.); *P. flavedana* Clem.; *Archips argyrospila* (Wlkr.); *A. rosaceana* (Harr.); *Archips* sp.; ?*Coelostathma discopunctana* Clem.; *Sparganothis sulphurana* (F.); *Canarsia* sp.; *Argyrotaenia velutinana* (Wlkr.); *Pandemis limitata* Rob.; *Acrobasis caryae* Grote; *Ancylis comptana fragariae* (W. and R.).
Goniozus platynotae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 75. ♂ ♀.
Goniozus euliae Fouts, 1926. Ent. Soc. Wash. Proc. 28: 167. ♀ ♂.

politus Ashmead. Md. (Virginia Beach).
Goniozus politus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 75. ♀.

Genus PERISIEROLA Kieffer

Perisierola Kieffer, 1914. Das Tierreich, Lief. 41, p. 533.
Type: ***Parasierola gallicola*** Kieffer. Present desig.

alutacea (Kieffer), n. status. Nev. (Ormsby).
Parasierola cellularis var. ***alutacea*** Kieffer, 1906. Berlin. Ent. Ztschr. 50: 254. ♂.

cellularis (Say). Pa., N. J., Md., Va., Ohio, Mich., Ind., Iowa, Mo., Nebr., Kans. Hosts: *Pyrausta ainsliei* Heinr.; *Ancylis comptana fragariae* (W. and R.).
Bethylus cellularis Say, 1836. Boston Jour. Nat. Hist. 1: 279.

emigrata Rohwer. Tex.
Perisierola emigrata Rohwer, 1917. Insecutor Inscitiae Menstruus 5: 1. ♀ ♂.

gracilicornis (Kieffer), n. status. Oreg., Calif., Idaho, Nev., N. Mex., Tex.
Parasierola cellularis var. *gracilicornis* Kieffer, 1906. Berlin. Ent. Ztschr. 50: 254. ♀.

punctaticeps (Kieffer), n. status. Calif., Tex. Hosts: *Laspeyresia caryana* (Fitch); *Acrobasis* sp.
Parasierola cellularis var. *punctaticeps* Kieffer, 1906. Berlin. Ent. Ztschr. 50: 254. ♀.

Genus PARASIEROLA Cameron

Parasierola Cameron, 1883. Ent. Soc. London Trans., p. 197.
Type: *Parasierola testaceicornis* Cameron. Monob.

bicarinata Brues. Ga., Tex. Host: *Laspeyresia caryana* (Fitch).
Parasierola bicarinata Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 100. ♀.

Unrecognized Species of Bethylidae

Bethylus formicoides Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 179. ♀.

Bethylus musculus Say, 1836. Boston Jour. Nat. Hist. 1: 280.

Bethylus prolongatus Provancher, 1881. Nat. Canad. 12: 265. ♀.

Family SCLEROGIBBIDAE

A very rare and poorly known group.

Revision: Richards, 1939. Roy. Ent. Soc. London Proc. 8: 211–223.
Morphology: Reid, 1941. Roy. Ent. Soc. London Trans. 91: 412–414.

Genus PROBETHYLUS Ashmead

Probethylus Ashmead, 1902. Canad. Ent. 34: 270.
Type: *Probethylus schwarzi* Ashmead. Monob. and orig. desig.

schwarzi Ashmead. Ariz.
Probethylus schwarzi Ashmead, 1902. Canad. Ent. 34: 270. ♂.

Family TRIGONALIDAE[26]

The trigonalids are parasites, either of social Vespidae or of the parasites of caterpillars. Their minute and very numerous eggs are laid at random on foliage and subsequently eaten by caterpillars. In the case of secondary parasites of caterpillars the eggs hatch in the gut of the caterpillar and the trigonalid larva enters the body of the caterpillar to attack an ichneumonid, tachinid, or other parasitic larva. Trigonalids parasitic on the larvae of social vespids are presumably brought to the vespid larvae with their caterpillar food.

Generic revision (World): Schulz, 1907. *In* Wytsman, Gen. Ins., fasc. 61, pp. 1–24.
Catalogue (World): Hedicke, 1938. Hym. Cat., pars 5. 18 pp.

Genus ORTHOGONALYS Schulz

Orthogonalys Schulz, 1905. Hym. Stud., p. 76.
Type: *Orthogonalys boliviana* Schulz. Monob.
Orthogonalos Schulz, 1907. *In* Wytsman, Gen. Ins., fasc. 61, p. 8. Emend.
Tapinogonalos Schulz, 1907. *In* Wytsman, Gen. Ins., fasc. 61, p. 14.
Type: *Trigonalys pulchellus* Cresson. Desig. by Viereck, 1914.

[26] By Henry Townes, North Carolina State College, Raleigh, N. C.

pulchella (Cresson). Maine to Va. Moist bottomland woods. Host: *Zenillia lobeliae* (Coq.).
Trigonalys pulchellus Cresson, 1867. Ent. Soc. Phila. Proc. 6: 351. ♂.

Genus POECILOGONALOS Schulz

Poecilogonalos Schulz, 1907. *In* Wytsman, Gen. Ins., fasc. 61, p. 9.
Type: (***Trigonalys pulchella*** Westwood)=[***Trigonalys***] ***thwaitesii*** Westwood. Monob.

costalis (Cresson), n. comb. Mass. and N. Y. to N. C. and W. Va. Moist woods. Host: *Phosphila turbulenta* Hbn., probably secondary.
Trigonalys (Lycogaster) costalis Cresson, 1867. Ent. Soc. Phila. Proc. 6: 352. ♂.
Trigonalys sulcatus Davis, 1898. Amer. Ent. Soc. Trans. 24: 349. ♂. N. syn.

Genus LYCOGASTER Schuckard

Lycogaster Shuckard, 1841. Entomologist 1: 123.
Type: ***Lycogaster pullatus*** Shuckard. Monob.

nevadensis (Cresson). Nev., Colo., N. Mex. Host: *Hyphantria cunea* (Drury), probably secondary.
Trigonalys nevadensis Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. vii. ♂ ♀.

pullata Shuckard. Mass. to Va., west to N. Dak. Host: *Enicospilus americanus* (Christ).
Lycogaster pullatus Shuckard, 1841. Entomologist 1: 124. ♀.
Lycogaster pullatus var. ***hollensis*** Melander and Brues, 1902. Biol. Bul. 3: 36. ♂ ♀. N. syn.
Biology: Schulz, 1911. Zool. Ann. 4: 7–8.

Genus BAREOGONALOS Schulz

Bareogonalos Schulz, 1907. *In* Wytsman, Gen. Ins., fasc. 61, p. 18.
Type: ***Trigonalys canadensis*** Harrington. Monob.
Nippogonalos Uchida, 1929. Insecta Matsumurana 3: 79.
Type: ***Nippogonalos jezoensis*** Uchida. Orig. desig.

canadensis (Harrington). B. C. Host: *Vespula pennsylvanica* (Sauss.).
Trigonalys Canadensis Harrington, 1896. Canad. Ent. 28: 108. ♀. (♂ misdet.).
Biology: Harrington, 1896. Canad. Ent. 28: 108. Taylor, 1898. Canad. Ent. 30: 14–15.

Superfamily SCOLIOIDEA[27]

Taxonomy: Ashmead, 1903-1904. Canad. Ent. 35: 4–8, 39–46, 95–107, 155–158, 199–205, 303–310, 323–332; 36: 5–9.

Family TIPHIIDAE

Taxonomy: Ashmead, 1903. Canad. Ent. 35: 4–7, 39–41, 155–156, 201–204.—Krombein, 1940. Amer. Ent. Soc. Trans. 65: 419.—Pate, 1947. N. Y. Ent. Soc. Jour. 55: 115–143.

Subfamily TIPHIINAE

Catalog: Hedicke, 1936. Hym. Cat., Pars. 1, Tiphiidae, pp. 1–32.

Genus TIPHIA Fabricius

Tiphia Fabricius, 1775. Systema Ent., p. 553.
Type: ***Tiphia femorata*** Fabricius. Desig. by Latreille, 1810.
Tiphiana (!) Rafinesque, 1815. Analyse Nat., p. 124.
Revision: Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 1–24, 13 figs.

[27] This section was prepared by Karl V. Krombein, U. S. Bureau of Entomology and Plant Quarantine, except for the part comprising the family Sapygidae, which was prepared by Richard M. Bohart, University of California, Davis, Calif.

So far as is known species of this genus parasitize larvae of various Scarabaeidae (Coleoptera). Detailed liberation records of the Oriental species released in the United States for control of the introduced *Popillia*, *Anomala*, *Autoserica*, and *Serica* were published by Krombein (1948, Ent. Soc. Amer. Ann. 41: 58–62). Of the liberated species only *vernalis* Rohwer, *popilliavora* Rohwer, and *asericae* Allen and Jaynes established themselves; *sternata* Parker is doubtfully established; *bicarinata* Cameron, *biseculata* Allen and Jaynes, *castaneaevora* Parker, *frater* Parker, *matura* Allen and Jaynes, *notopolita* var. *alleni* Roberts, *pullivora* Allen and Jaynes, and *totopunctata* Allen and Jaynes apparently did not become established.

affinis Malloch. Ont., N. H. to Fla., west to Mich., Kans., and Tex.
Tiphia affinis Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 19. ♀ ♂.

arida Malloch. Ill. (Havana).
Tiphia arida Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 20. ♀.

asericae Allen and Jaynes. N. Y., N. J., Pa. Introduced from Korea. Hosts: *Autoserica castanea* (Arrow); *Serica peregrina* Chapin.
Tiphia asericae Allen and Jaynes, 1930. U. S. Natl. Mus. Proc. 76 (17): 74.
Biology: Clausen, Jaynes, and Gardner, 1933. U. S. Dept. Agr. Tech. Bul. 366: 45–46.—Gardner and Parker, 1940. U. S. Dept. Agr. Tech. Bul. 738: 21.

aterrima Malloch. Ill. (Urbana).
Tiphia aterrima Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 19. ♀.

atlantis Allen. N. J., Pa., Fla., Ariz.
Tiphia atlantis Allen, 1934. Amer. Ent. Soc. Trans. 60: 314. ♀.

clypeolata Malloch. Md., Va., Ga., Tex., Kans.
Tiphia clypeolata Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 16. ♀ ♂ (in part?).
Taxonomy: Allen, 1934. Amer. Ent. Soc. Trans. 60: 310.

conformis Malloch. Va. to Fla., west to Mich., Colo., and Tex.
Tiphia conformis Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 22. ♀ ♂.
Tiphia imitatrix Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 22. ♀.
Taxonomy: Allen, 1934. Amer. Ent. Soc. Trans. 60: 312.

confusa Allen. Pa., Va., N. C., Fla.
Tiphia confusa Allen, 1934. Amer. Ent. Soc. Trans. 60: 302. ♀.

convexa Allen. N. H., N. J., Va., N. C., Tenn., Mich., Kans., Mont.
Tiphia convexa Allen, 1934. Amer. Ent. Soc. Trans. 60: 306. ♂.

crassipunctata Allen. N. C.
Tiphia crassipunctata Allen, 1934. Amer. Ent. Soc. Trans. 60: 307. ♂.

dentata Allen. Canada, N. J., Pa., D. C., Va., Ga.
Tiphia dentata Allen, 1934. Amer. Ent. Soc. Trans. 60: 303. ♂.

diminuta Roberts. Nebr., Calif.
Tiphia diminuta Roberts, 1933. Kans. Ent. Soc. Jour. 6: 91. ♀ ♂.

egregia Viereck. N. H. to Fla., west to Mich., Ill., S. Dak.
Tiphia eyregia (!) Viereck, 1906. Ent. News 17: 303. ♂.
Tiphia egregia Viereck, 1906. Ent. News 17: 350.
Tiphia tuberculata Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 14. ♀ ♂. Preocc.
Tiphia papillata Roberts, 1930. Canad. Ent. 62: 190. N. name.
Taxonomy: Allen, 1934. Amer. Ent. Soc. Trans. 60: 312.

fenestrata (Klug). Ga.
Bethylus fenestratus Klug, 1810. *In* Weber, Beitr. z. Naturk. 2: 193. ♀.
Taxonomy: Hedicke, 1936. Hym. Cat., v. 1, p. 12.

flavipennis Spinola. Calif. (?).
Tiphia flavipennis Spinola, 1841. Soc. Ent. France Ann. 10: 102. ♀.
Tiphia elegans Cameron, 1893. Biol. Cent.-Amer., Hym., v. 2, p. 240. ♀ ♂
Tiphia ochroptera Dalla Torre, 1897. Cat. Hym., v. 8, p. 139.
N. name err. proposed for *flavipennis* Spinola, not Smith, 1857.

floridana Robertson. N. J. to Fla.
Tiphia floridana Robertson, 1901. Amer. Ent. Soc. Trans. 27: 195. ♀ ♂.
Taxonomy: Allen, 1934. Amer. Ent. Soc. Trans. 60: 314.

fortistriolata Cameron. Nev. (Ormsby Co.).
Tiphia fortistriolata Cameron, 1907. Invertebrata Pacifica 1: 170. ♂.

fulvicauda Cameron. Nev. (Ormsby Co.).
Tiphia fulvicauda Cameron, 1907. Invertebrata Pacifica 1: 169. ♀.

hollowayi Allen. Conn., N. J., Pa., Md., N. C., Ohio, Mich.
Tiphia hollowayi Allen, 1934. Amer. Ent. Soc. Trans. 60: 303. ♂.

illinoensis Robertson. Ill.
Tiphia illinoensis Robertson, 1901. Amer. Ent. Soc. Trans. 27: 196. ♀ ♂.
Taxonomy: Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 24. ♂.

inaequalis Malloch. D. C., Va., N. C., Ala., Ill., Kans.
Tiphia inaequalis Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 22. ♀ ♂.

incisurata Malloch. Pa., N. C.
Tiphia incisurata Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 17. ♀.

infossata Allen. N. J., D. C., Va., S. C., Ala., Miss., La., Tex., W. Va., Ind., Ill., Mich.
Tiphia infossata Allen, 1934. Amer. Ent. Soc. Trans. 60: 301. ♀.

inornata Say. Ohio, Pa.
Tiphia inornata Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 331. ♀.
Taxonomy: Allen, 1934. Amer. Ent. Soc. Trans. 60: 300.

insolita Allen. N. J. (New Lisbon).
Tiphia insolita Allen, 1934. Amer. Ent. Soc. Trans. 60: 316. ♂.

intermedia Malloch. Ont., Mass. to Fla., west to Calif. and Ariz. Host: *Phyllophaga* spp.
Tiphia punctata Robertson, 1901. Amer. Ent. Soc. Trans. 27: 196. ♂. Preocc.
Tiphia punctata var. *intermedia* Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 21. ♀.
Tiphia reticulata Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 23. ♀.
Tiphia intermedia var. *exitialis* Roberts, 1930. Canad. Ent. 62: 189. N. name.
Taxonomy: Allen, 1934. Amer. Ent. Soc. Trans. 60: 310.—Krombein, 1938. Ent. News 49: 186.
Biology: Davis, 1919. Ill. Nat. Hist. Survey Bul. 13: 59–68.

jaynesi Allen. Ont., N. J., Ill.
Tiphia jaynesi Allen, 1934. Amer. Ent. Soc. Trans. 60: 311. ♀ ♂.

letalis Roberts. N. Y., Pa., D. C., Va., Ohio, Ind., Mich., Ill., Iowa, S. Dak., Kans., Miss.
Tiphia clypeata Robertson, 1901. Amer. Ent. Soc. Trans. 27: 196. ♂. Preocc.
Tiphia letalis Roberts, 1930. Canad. Ent. 62: 189. N. name.
Taxonomy: Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 11. ♀ ♂.

micropunctata Allen. N. S., N. H. to N. C., west to Mont., Utah, and Tex.
Tiphia micropunctata Allen, 1934. Amer. Ent. Soc. Trans. 60: 297. ♀ ♂.

minor Provancher. B. C. (Vancouver Isl.).
Tiphia minor Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 254. ♂.

nevadana Cameron. Nev. (Ormsby Co.).
Tiphia nevadana Cameron, 1906. Invertebrata Pacifica 1: 157. ♂.

occidentata Malloch. Colo., N. Mex.
Tiphia occidentata Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 17. ♂.

odontogaster Viereck. N. Mex., Ariz.
Tiphia odontogaster Viereck, 1903. Amer. Ent. Soc. Trans. 29: 71. ♂.

popilliavora Rohwer. N. H., Mass., Conn., N. Y., N. J., Pa., Del., Md., Va., Ohio.

Introduced from Japan and Korea. Host: *Popillia japonica* Newm.
Tiphia popilliavora Rohwer, 1924. Ent. Soc. Wash. Proc. 26: 89. ♀ ♂.
Taxonomy: Allen and Jaynes, 1930. U. S. Natl. Mus. Proc. 76 (17): 51, figs. 3, 21, 22, 27, 28, ♀ ♂.
Biology (selected refs. only): Clausen, King, and Teranishi, 1927. U. S. Dept. Agr. Bul. 1429: 33–39.—King and Holloway, 1930. Jour. Econ. Ent. 23: 266–274.—Holloway, 1931. N. Y. Ent. Soc. Jour. 39: 555–564.—White, 1943. N. Y. Ent. Soc. Jour. 51: 213–218.

puncticeps Cameron. Nev.
Tiphia puncticeps Cameron, 1906. Invertebrata Pacifica 1: 158. ♂.

raui Allen. Mo., Miss.
Tiphia raui Allen, 1934. Amer. Ent. Soc. Trans. 60: 308. ♀.

relativa Viereck. Vt., Conn., Mich., N. Y. Host: *Cyclocephala borealis* Arrow.
Tiphia relativa Viereck, 1906. Ent. News 17: 304. ♂.
Biology: Adams, 1949. Jour. Econ. Ent. 42: 626.

robertsoni Malloch. N. H. to Va., west to N. Dak. and Tex.
Tiphia robertsoni Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 23. ♀.

rugulosa Malloch. Maine south to Ga., Mich., Ill., Kans.
Tiphia rugulosa Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 15. ♀ ♂.

shastensis Krombein. Calif. (Old Sta. in Shasta Co.). Host: *Phyllophaga errans* Lec.
Tiphia shastensis Krombein, 1942. Pan-Pacific Ent. 18: 139. ♀ ♂.
Biology: Linsley and Michener, 1942. Pan-Pacific Ent. 18: 154.

similis Malloch. N. Y., Ill., Kans.
Tiphia similis Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 18. ♂.

subcarinata Malloch. Md., Va., Ga., Mich.
Tiphia subcarinata Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 15. ♂.

tarda Say. Ind.
Tiphia tarda Say, 1836. Boston Jour. Nat. Hist. 1: 300. ♂.

tegulina Malloch. Wash., Calif., Idaho.
Tiphia tegulina Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 21. ♀.

texensis Malloch. Tex. (Dallas).
Tiphia texensis Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 20. ♀.

transversa Say. Vt. to Fla., west to Iowa and Tex. Host: *Phyllophaga* spp.
Tiphia transversa Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 83. ♂.
Taxonomy: Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 11.—Allen, 1934. Amer. Ent. Soc. Trans. 60: 297.
Biology: Davis, 1919. Ill. Nat. Hist. Survey Bul. 13: 68.

truncata Cameron. Nev. (Ormsby Co.).
Tiphia truncata Cameron, 1906. Invertebrata Pacifica 1: 156. ♂.

unica Allen. Ga. (Thomasville, Spring Creek).
Tiphia unica Allen, 1934. Amer. Ent. Soc. Trans. 60: 309. ♀.

vernalis Rohwer. Mass., N. H., R. I., Conn., N. Y., N. J., Del., Pa., Md., D. C., Va., N. C., Ohio, W. Va. Introduced from Japan, Korea, and China. Host: *Popillia japonica* Newm.
Tiphia vernalis Rohwer, 1924. Ent. Soc. Wash. Proc. 26: 91. ♀ ♂.
Taxonomy: Allen and Jaynes, 1930. U. S. Natl. Mus. Proc. 76 (17): 78, figs. 6, 16, 19, 25, 29.
Biology (selected refs. only): Clausen, King, and Teranishi, 1927. U. S. Dept. Agr. Bul. 1429: 40–41.—Balock, 1934. Jour. Econ. Ent. 27: 491–496.—White, 1943. N. Y. Ent. Soc. Jour. 51: 213–218.

vulgaris Robertson. Ill., Minn., Iowa, S. Dak., Kans., Mo. Host: *Phyllophaga* spp.
Tiphia vulgaris Robertson, 1901. Amer. Ent. Soc. Trans. 27: 195. ♀ ♂.
Taxonomy: Allen, 1934. Amer. Ent. Soc. Trans. 60: 305.
Biology: Davis, 1919. Ill. Nat. Hist. Survey Bul. 13: 69.

waldenii Viereck. Mass. to Fla., Ohio, W. Va., Ala., Miss., Kans.

Tiphia waldenii (!) Viereck, 1906. Ent. News 17: 302. ♂.
Tiphia brunneicornis Viereck, 1906. Ent. News 17: 303. ♂.
Tiphia waldenii Viereck, 1906. Ent. News 17: 350.
Tiphia waldeni (!) Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 23.
Taxonomy: Allen, 1934. Amer. Ent. Soc. Trans. 60: 313.

winnemanae Malloch. Md. (Plummers Isl.).
Tiphia winnemanae Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 23. ♂.

Genus NEOTIPHIA Malloch

Revision: Allen, 1935. Amer. Ent. Soc. Trans. 61: 53–65.

Subgenus NEOTIPHIA Malloch

Neotiphia Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13:9.
Type: *Neotiphia acuta* Malloch. Monob. and orig. desiig.

acuta Malloch. Tex. (Beeville).
Neotiphia acuta Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 9. ♀ ♂.

carinata Krombein. Ariz. (Sierra Ancha and Santa Rita Mts.).
Neotiphia carinata Krombein, 1938. Ent. Soc. Amer. Ann. 31: 59. ♂.

conspicua Allen. Tex. (Barstow).
Neotiphia conspicua Allen, 1935. Amer. Ent. Soc. Trans. 61: 61. ♂.

crawfordi Allen. Tex., N. Mex.
Neotiphia crawfordi Allen, 1935. Amer. Ent. Soc. Trans. 61: 60. ♀.
Neotiphia cockerelli Allen, 1935. Amer. Ent. Soc. Trans. 61: 62. ♂. N. syn.

cristata Allen. Ariz. (Douglas, Santa Rita Mts.).
Neotiphia cristata Allen, 1935. Amer. Ent. Soc. Trans. 61: 59. ♀.

luteipennis (Cresson). Colo.
Tiphia luteipennis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 445. ♀.

novomexicana Allen. N. Mex., Ariz.
Neotiphia novomexicana Allen, 1935. Amer. Ent. Soc. Trans. 61: 63. ♀.

pima Pate. Colo., N. Mex., Ariz.
Neotiphia pima Pate, 1939. Ent. News 50: 245. ♀ ♂.

rostrata Allen. Ariz. (Wickenberg).
Neotiphia rostrata Allen, 1935. Amer. Ent. Soc. Trans. 61: 64. ♂.

waltoni Allen. Tex., N. Mex., Colo.
Neotiphia waltoni Allen, 1935. Amer. Ent. Soc. Trans. 61: 62. ♀.

Subgenus KROMBEINIA Pate

Neotiphia, subg. *Krombeinia* Pate, 1947. N. Y. Ent. Soc. Jour. 55: 132.
Type: *Neotiphia chiricahua* Pate. Orig. desig.

chiricahua Pate. Ariz. (Chiricahua).
Neotiphia chiricahua Pate, 1939. Ent. News 50: 221. ♀ ♂.

robusta Allen. Tex. (Dallas).
Neotiphia ocellata Allen, 1935. Amer. Ent. Soc. Trans. 61: 56. ♀. N. syn.
Neotiphia robusta Allen, 1935. Amer. Ent. Soc. Trans. 61: 64. ♂.

sulcata (Roberts). Iowa, S. Dak., Kans., Colo., N. Mex.
Tiphia canaliculata Malloch, 1918. Ill. Nat. Hist. Survey Bul. 13: 10. ♂. Preocc.
Tiphia sulcata Roberts, 1930 .Canad. Ent. 62: 190. N. name.

Genus PARATIPHIA Sichel

(*Epomidiopteron*) *Paratiphia* Sichel, 1864. *In* Saussure and Sichel, Cat. Spec. Gen. Scol., p. 269.
Type: *Epomidiopteron Sumichrasti* Sichel. Monob.

albilabris (Spinola). Calif.
Tiphia albilabris Spinola, 1841. Soc. Ent. France Ann. 10: 102. ♂.
Taxonomy: Cameron, 1907. Invertebrata Pacifica 1: 173. ♂.

algonquina Viereck. N. Y., N. J., Ga.
Paratiphia algonguina (!) Viereck, 1909. Ent. Soc. Wash. Proc. 11: 45. ♀ ♂.
Paratiphia algonquina Smith, 1910. N. J. State Mus. Ann. Rpt. for 1909, p. 666.

bakeri Cameron. Nev. (Ormsby Co.).
Paratiphia bakeri Cameron, 1905. Invertebrata Pacifica 1: 109. ♂.

claripennis Cameron. Nev. (Ormsby Co.).
Paratiphia claripennis Cameron, 1905. Invertebrata Pacifica 1: 108. ♂.

fortistriolata Cameron. Nev. (Ormsby Co.).
Paratiphia fortistriolata Cameron, 1907. Invertebrata Pacifica 1: 172. ♂.

fuscinerva Cameron. Nev. (Ormsby Co.).
Paratiphia fuscinerva Cameron, 1905. Invertebrata Pacifica 1: 107. ♀.

fuscipennis Cameron. No locality given.
Paratiphia fuscipennis Cameron. 1905. Invertebrata Pacifica 1: 106. ♀ (in key).

intermedia Cameron. Calif. (Claremont).
Paratiphia intermedia Cameron, 1907. Invertebrata Pacifica 1: 176. ♂.

magna Roberts. Idaho (Pocatello).
Paratiphia magna Roberts, 1929. Psyche 36: 358. ♀.

neomexicana Cameron. N. Mex. (Santa Fé).
Paratiphia neomexicana Cameron, 1907. Invertebrata Pacifica 1: 175. ♂.

nevadensis Cameron. Nev. (Ormsby Co.).
Paratiphia nevadensis Cameron, 1905. Invertebrata Pacifica 1: 108. ♂.

occidentalis Cameron. Nev. (Ormsby Co.).
Paratiphia occidentalis Cameron, 1907. Invertebrata Pacifica 1: 173. ♂.

ormsbyensis Cameron. Nev. (Ormsby Co.).
Paratiphia ormsbyensis Cameron, 1907. Invertebrata Pacifica 1: 175. ♂.

parvula Cameron. Nev. (Ormsby Co.).
Paratiphia parvula Cameron, 1907. Invertebrata Pacifica 1: 176. ♂.

robusta Cameron. Calif. (Claremont).
Paratiphia robusta Cameron, 1905. Invertebrata Pacifica 1: 106. ♀.

texana Cameron. ?Tex.
Paratiphia texana Cameron, 1907. Invertebrata Pacifica 1: 174. ♀ ♂.

varipunctata Cameron. Nev. (Ormsby Co.).
Paratiphia varipunctata Cameron, 1905. Invertebrata Pacifica 1: 106. ♀.
Taxonomy: Cameron, 1907. Invertebrata Pacifica 1: 172. ♀.

Genus EPOMIDIOPTERON Romand

Epomidiopteron Romand, 1835. Soc. Ent. France Ann. 4: 653.
Type: *Epomidiopteron Julii* Romand. Monob.
Scoliphia Banks, 1912. Canad. Ent. 44: 201.
Type: *Scoliphia spilota* Banks. Monob. and orig. desig.
Epimodiopteron (!) Bridwell, 1919. Hawaii. Ent. Soc. Proc. 4: 119.

spilota (Banks). Ariz.
Scoliphia spilota Banks, 1912. Canad. Ent. 44: 201. ♀ ♂.
Epimodiopteron (!) *spilota* Bridwell, 1919. Hawaii. Ent. Soc. Proc. 4: 119.

Subfamily MYZININAE

Revision: Krombein, 1938. Amer. Ent. Soc. Trans. 64: 227–292, 12 figs.

Genus PTEROMBRUS Smith

Pterombrus Smith, 1869. Ent. Soc. London, Trans., p. 302.
Type: *Pterombrus aenigmaticus* Smith. Monob

Engycystis Fox, 1895. Calif. Acad. Sci. Proc. 4: 262.
Type: *Myzine rufiventris* Cresson. Monob.
Huberia Ducke, 1907. Rev. d'Ent. 26: 5.
Type: *Huberia glabricollis* Ducke. Desig. by Krombein, 1937.
Pterombus (!) Williams, 1928. Hawaii. Sugar Planters' Assoc. Expt. Sta., Bul. Ent. Ser. 19: 144.

Nothing is known of the habits of our sole North American species, but some of the South American species are parasitic on larvae of two genera of Cicindelidae (Coleoptera).

rufiventris hyalinatus Krombein. West. Tex., Ariz., Calif.
Pterombrus rufiventris hyalinatus Krombein, 1949. Pan-Pacific Ent. 25: 88. ♀ ♂.

rufiventris rufiventris (Cresson). Va. south to Ga. to east. Tex.
Myzine rufiventris Cresson, 1872. Amer. Ent. Soc. Trans. 4: 201. ♂.
Myzine cressonii Dalla Torre, 1897. Cat. Hym., v. 8, p. 122. N. name for *Myzine rufiventris* Cresson, not *Meria rufiventris* Klug.
Taxonomy: Krombein, 1949. Pan-Pacific Ent. 25: 88.

Genus MYZINUM Latreille

Myzine, Myzinum Latreille, 1803. Nouv. Dict. Hist. Nat., v. 15, p. 326.
Type: *Tiphia maculata* Fabricius. Monob.
Elis Fabricius, 1805. Systema Piezatorum, p. 248.
Type: *Elis sexcincta* Fabricius. Desig. by Bingham, 1897.
Plesia Jurine, 1807. Nouv. Meth. Class. Hym. Dipt., p. 150.
Type: *Tiphia namea* Fabricius. Desig. by Ashmead, 1903.
Myzina (!) Rafinesque, 1815. Analyse Nat., p. 124.

berlyi berlyi (Brimley). S. C., Ill., Ky., Wis., Kans., Miss., Tex.
Elis berlyi Brimley, 1927. Ent. News 38: 238. ♀.

berlyi parksi Krombein. La., Tex.
Myzine berlyi parksi Krombein, 1938. Amer. Ent. Soc. Trans. 64: 251. ♀ ♂.

berlyi patei Krombein. N. J., N. C., Ga., Fla.
Myzine berlyi patei Krombein, 1938. Amer. Ent. Soc. Trans. 64: 254. ♀ ♂.

carolinianum carolinianum (Panzer). Va. to Fla., west to Tex.
Tiphia caroliniana Panzer, 1806. Krit. Revis. Insektenf. Deutschlands, v. 2, p. i, pl. 1, figs. a-c. ♀.
Myzine flavipes Olivier, 1811. Encycl. Meth., v. 8, p. 136. ♀.

carolinianum collare (Say). Ohio west to S. Dak., south to La. and N. Mex.
Meria collaris Say, 1837. Boston Jour. Nat. Hist. 1: 362. ♀.
Myzine thoracica Fox, 1893. Canad. Ent. 35: 113. ♀. Preocc.
Myzine illinoisensis Dalla Torre, 1897. Cat. Hym., v. 8, p. 124. N. name.
Elis atriventris Gahan, 1913. U. S. Natl. Mus. Proc. 40: 431. ♀ ♂.

confluens Cresson. Colo.
Myzine confluens Cresson, 1865. Ent. Soc. Phila. Proc. 4: 443. ♀.

dubiosum Cresson. D. C. south to Fla., Ala.; Ill. south to La., Colo., and Ariz.
Myzine dubiosa Cresson, 1872. Amer. Ent. Soc. Trans. 4: 200. ♀.
Myzine texana Cresson, 1872. Amer. Ent. Soc. Trans. 4: 200. ♀.
Plesia fulvinervis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 239. ♀.

frontale Cresson. Kans., Tex., N. Mex., Colo., Ariz., Nev., Calif.
Plesia marginata Say, 1823. West. Quart. Rptr. 2: 75. ♀. Preocc.
Myzine frontalis Cresson, 1875. Rpt. Geog. Geol. Expl. and Survey west of 100th Meridian, p. 711. ♀. N. syn.

maculatum (Fabricius). Mass. to Fla., west to Nev. and Ariz., Calif.
Tiphia maculata Fabricius, 1793. Ent. System., p. 224. ♀.
Sapyga majorta Panzer, 1806. Krit. Rev. Insektenf. Deutschlands, v. 2, p. iv, pl. 2, figs. d, e. ♂.
Tiphia interrupta Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 322. ♀.
Myzine hamatus Say, 1836. Boston Jour. Nat. Hist. 1: 300. ♂.
Meria costata Say, 1837. Boston Jour. Nat. Hist. 1: 360. ♀.

Myzine hyalina Cresson, 1865. Ent. Soc. Phila. Proc. 4: 442. ♂.
Myzine maiorta (!) Cresson, 1887. Amer. Ent. Soc. Trans., Sup. Vol., p. 268.
Elis floridanus Rohwer, 1920. Ent. Soc. Wash. Proc. 22: 54. ♀ ♂.

marginatum (Klug), n. comb. Ga.
Tiphia marginata Klug, 1810. *In* Weber, Beitr. z. Naturk. 2: 184. ♂.

namea (Fabricius). Va., N. C., S. C., Fla., Ala., Tex.
Tiphia namea Fabricius, 1805. Systema Piezatorum, p. 233. ♀.
Elis propodealis Rohwer, 1920. Ent. Soc. Wash. Proc. 22: 56. ♀.
Myzine magna Krombein, 1938. Amer. Ent. Soc. Trans. 64: 256. ♂. N. syn.

navajo Krombein. Ariz.
Myzine navajo Krombein, 1938. Amer. Ent. Soc. Trans. 64: 272. ♀ ♂.

obscurum (Fabricius). N. Y. to Fla., west to Ill. and Tex., ?Ariz. Host: *Dyscinetus trachypygus* (Burm.).
Tiphia obscura Fabricius, 1805. Systema Piezatorum, p. 233. ♀.
Plesia nigripes Guérin, 1838. Rev. Zool. 1: 57. ♀.
Plesia fuliginosa Lepeletier, 1845. Hist. Nat. Ins. Hym., v. 3, p. 574. ♂.

5-cinctum (Fabricius). Que. to Fla., west to Wyo. and N. Mex., Calif. Host: *Phyllophaga* spp.
Tiphia 5-cincta Fabricius, 1775. Systema Ent., p. 353. ♀.
Tiphia cingulata Klug, 1810. *In* Weber, Beitr. z. Naturk. 2: 185. ♂. N. syn.
Sapyga subulata Say, 1823. West. Quart. Rptr. 2: 75. ♂.
Myzine proxima Guérin, 1837. Dict. Pitt. Hist. Nat., p. 581. ♂.
Biology: Flint and Sanders, 1912. Jour. Econ. Ent. 3: 490.—Davis, 1919. Ill. Nat. Hist. Survey Bul. 13: 73.

serenum (Fabricius). S. C.
Tiphia serena Fabricius, 1805. Systema Piezatorum, p. 234. ♀.

spilonotum (Cameron). Tex., N. Mex., Colo., Utah, Ariz.
Plesia spilonota Cameron, 1908. Amer. Ent. Soc. Trans. 34: 240. ♀.

Subfamily ANTHOBOSCINAE

Genus LALAPA Pate

Lalapa Pate, 1947. N. Y. Ent. Soc. Jour. 55: 126.
Type: ***Lalapa lusa*** Pate. Monob. and orig. desig.

lusa Pate. Idaho, Calif.
Lalapa lusa Pate, 1947. N. Y. Ent. Soc. Jour. 55: 128. ♀ ♂.

Subfamily BRACHYCISTIDINAE

Revisions: Bradley, 1917. Amer. Ent. Soc. Trans. 43: 252–283, pls. 20–25 (males only).—Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 1–28, pls. 1–4 (males only).—Mickel and Krombein, 1942. Amer. Midland Nat. 28: 648–679, pls. 1–3 (females only).

Genus BRACHYCISTIS Fox

Brachycistis Fox, 1893. Calif. Acad. Sci. Proc. 4 (ser. 2): 7.
Type: ***Brachycistis petiolatus*** Fox. Orig. desig.
Brachycistus (!) Cockerell and Casad, 1894. Ent. News 5: 295.
Brachycystis (!) Viereck, 1906. Amer. Ent. Soc. Trans. 32: 190.

aequalis Fox. Kans., Colo., Nev., Ariz.
Brachycistis aequalis Fox, 1899. Amer. Ent. Soc. Trans. 25: 284. ♂.

alcanor (Blake). Ariz., Calif.
Agama Alcanor Blake, 1871. Amer. Ent. Soc. Trans. 3: 264. ♂.

ampla (Blake). Kans., Colo., Wash.
Agama ampla Blake, 1879. Amer. Ent. Soc. Trans. 7: 252. ♂

arenivaga Bradley. Calif. (Calexico).
Brachycistis (Brachycistis) arenivaga Bradley, 1917. Amer. Ent. Soc. Trans. 43: 269. ♂.

atrata (Blake). Nev., Calif.
Agama atrata Blake, 1879. Amer. Ent. Soc. Trans. 7: 253. ♂.
Mutilla agama Dalla Torre, 1897. Cat. Hym., v. 8, p. 7. N. name for *Agama atrata* Blake, not *Mutilla atrata* Linnaeus.
Brachycistis contiguus Fox, 1899. Amer. Ent. Soc. Trans. 25: 282. ♂.

brevis Fox. Ariz., Calif.
Brachycistis brevis Fox, 1899. Amer. Ent. Soc. Trans. 25: 285. ♂.

carinata Fox. Calif.
Brachycistis carinatus Fox, 1899. Amer. Ent. Soc. Trans. 25: 283. ♂.

castanea (Cresson). Tex., N. Mex., Colo., Ariz., Calif.
Mutilla castanea Cresson, 1865. Ent. Soc. Phila. Proc. 4: 388. ♂.

crassa Bradley. Colo., Ariz., Calif.
Brachycistis (Brachycistis) crassa Bradley, 1917. Amer. Ent. Soc. Trans. 43: 277. ♂.

crematogaster Melander. Kans., Tex.
Brachycistis crematogaster Melander, 1903. Amer. Ent. Soc. Trans. 29: 329. ♂.

curvata Malloch. Ariz. (Fort Mojave).
Brachycistis (Brachycistis) curvata Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 16. ♂.

dakotensis Malloch. S. Dak. (Edgemont).
Brachycistis (Brachycistis) dakotensis Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 20. ♂.

dentata Bradley. Tex., Kans., N. Mex., Colo. Utah, Ariz., Calif.
Brachycistis (Brachycistis) dentata Bradley, 1917. Amer. Ent. Soc. Trans. 43: 263. ♂.

eremi Bradley. Ariz., Calif.
Brachycistis (Brachycistis) eremi Bradley, 1917. Amer. Ent. Soc. Trans. 43: 279. ♂.

eriopis Bradley. Calif. (Calexico).
Brachycistis (Brachycistis) eriopis Bradley, 1917. Amer. Ent. Soc. Trans. 43: 266. ♂.

gaudii Cockerell. Calif.
Brachycistis gaudii Cockerell, 1901. Canad. Ent. 33: 340. ♂.

glabrella (Cresson). S. Dak., Colo., Tex., N. Mex., Ariz.
Mutilla glabrella Cresson, 1865. Ent. Soc. Phila. Proc. 4: 441. ♂.

idiotes Cockerell. N. Mex., Calif.
Brachycistis idiotes Cockerell, 1895. Ent. News. 6: 63. ♂.

imitans Malloch. Calif. (Los Angeles Co.).
Brachycistis (Brachycistis) imitans Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 23. ♂.

inaequalis Fox. Tex., Calif.
Brachycistis inaequalis Fox, 1899. Amer. Ent. Soc. Trans. 25: 282. ♂.

indiscreta Fox. Tex., Ariz.
Brachycistis indiscreta Fox, 1899. Amer. Ent. Soc. Trans. 25: 284. ♂.

intermedia Malloch. Calif. (San Diego).
Brachycistis (Brachycistis) intermedia Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 18. ♂.

ioachinensis Bradley. Calif.
Brachycistis (Brachycistis) ioachinensis Bradley, 1917. Amer. Ent. Soc. Trans. 43: 267. ♂.

lacustris Malloch. Nev. (Sutcliffe Sta. on Pyramid Lake).
Brachycistis (Brachycistis) lacustris Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 24. ♂.

melanocephala Malloch. Utah (Uinta Natl. Forest).
Brachycistis (*Brachycistis*) *melanocephala* Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 19. ♂.

micrommata Bradley. Calif. (Berkeley).
Brachycistis (*Brachycistis*) *micrommata* Bradley, 1917. Amer. Ent. Soc. Trans. 43: 265. ♂.

nevadensis Fox. N. Mex., Nev.
Brachycistis nevadensis Fox, 1899. Amer. Ent. Soc. Trans. 25: 283. ♂.

nigrifrons Malloch. Ariz. (Graham Mts.).
Brachycistis (*Brachycistis*) *nigrifrons* Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 16. ♂.

nitida (Cresson). Nebr., Kans., Colo., Utah, Tex., N. Mex., Ariz.
Agama nitida Cresson, 1875. Rpt. Geog. Geol. Expl. and Survey west of 100th Meridian, p. 710. ♂.
Photopsis sobrinus Blake, 1886. Amer. Ent. Soc. Trans. 13: 268. ♂.
Photopsis lepidus Blake, 1886. Amer. Ent. Soc. Trans. 13: 269. ♂.

noctivaga Bradley. Utah, Nev., Ariz.
Brachycistis (*Brachycistis*) *noctivaga* Bradley, 1917. Amer. Ent. Soc. Trans. 43: 272. ♂.

normalis Malloch. S. Dak., Colo., Ariz., Calif.
Brachycistis normalis Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 8. ♂.

nuda Fox. Nev., Wash., Calif.
Brachycistis nudus Fox, 1899. Amer. Ent. Soc. Trans. 25: 281. ♂.
Brachycistis nigritus Fox, 1899. Amer. Ent. Soc. Trans. 25: 282. ♂.

parva Malloch. Ariz., Calif.
Brachycistis (*Brachycistis*) *parva* Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 14. ♂.

perpunctata Cockerell. N. Mex., Calif.
Brachycistis perpunctatus Cockerell, 1896. Amer. Ent. Soc. Trans. 22: 291. ♂.

protracta Bradley. Ariz. (Phoenix).
Brachycistis (*Brachycistis*) *protracta* Bradley, 1917. Amer. Ent. Soc. Trans. 43: 270. ♂.
Brachycistis (*Brachycistis*) *protractor* (!) Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 7.

rugosa Malloch. Nev. (Golconda).
Brachycistis (*Brachycistis*) *rugosa* Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 11. ♂.

semiatra Malloch. Wash., ?Nev.
Brachycistis (*Brachycistis*) *semiatra* Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 24. ♂.

stictinota Viereck. Kans. (Clark Co.).
Brachycystis (!) *stictinotus* Viereck, 1906. Amer. Ent. Soc. Trans. 32: 190. ♂.

stygia Bradley. Ariz. (Nogales).
Brachycistis (*Brachycistis*) *stygia* Bradley, 1917. Amer. Ent. Soc. Trans. 43: 276. ♂.

subcarinata Malloch. Ariz.
Brachycistis (*Brachycistis*) *subcarinata* Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 11. ♂.

texana Malloch. Tex. (Cotulla).
Brachycistis (*Brachycistis*) *texana* Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 12. ♂.

thermarum Bradley. Ariz.
Brachycistis (*Brachycistis*) *thermarum* Bradley, 1917. Amer. Ent. Soc. Trans. 43: 274. ♂.

triangularis Fox. Tex., N. Mex., Ariz.
Brachycistis triangularis Fox, 1899. Amer. Ent. Soc. Trans. 25: 284. ♂.

utahensis Malloch. Utah.
Brachycistis (*Brachycistis*) *utahensis* Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 17. ♂.

verticalis Malloch. Ariz. (Fort Grant).
Brachycistis (*Brachycistis*) *verticalis* Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 19. ♂.

washingtona Malloch. Wash. (Ritzville).
Brachycistis (*Brachycistis*) *washingtona* Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 21. ♂.

Genus BRACHYCISTINA Malloch

Brachycistis, subg. *Brachycistina* Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 5, 25.
Type: *Brachycistis* (*Brachycistina*) *acuta* Malloch. Orig. desig.

acuta (Malloch), n. comb. Ariz. (Arlington).
Brachycistis (*Brachycistina*) *acuta* Malloch, 1926. U. S. Natl. Mus. Proc. 68 (3): 25. ♂.

elegantula (Cockerell and Casad), n. comb. N. Mex., Ariz.
Brachycistus (!) *elegantulus* Cockerell and Casad, 1894. Ent. News 5: 295. ♂.

Genus BRACHYCISTELLUS Baker

Brachycistellus Baker, 1907. Invertebrata Pacifica 1: 177.
Type: *Brachycistellus fugitiformis* Baker. Monob.

fugitiformis Baker. Calif. (Claremont).
Brachycistellus fugitiformis Baker, 1907. Invertebrata Pacifica 1: 178. ♂.

inermis (Malloch), n. comb. Ariz. (Higley).
Brachycistus (!) (*Brachycistellus*) *inermis* Malloch, 1924. Brooklyn Ent. Soc. Bul. 19: 23. ♂.

marcidus (Bradley), n. comb. Calif. (Calexico).
Brachycistis (*Brachycistellus*) *marcida* Bradley, 1917. Amer. Ent. Soc. Trans. 43: 283. ♂.

Genus QUEMAYA Pate

Quemaya Pate, 1947. N. Y. Ent. Soc. Jour. 55: 139.
Type: *Brachycistis* (*Brachycistellus*) *paupercula* Bradley. Monob. and orig. desig.

paupercula (Bradley). Calif. (Calexico).
Brachycistis (*Brachycistellus*) *paupercula* Bradley, 1917. Amer. Ent. Soc. Trans. 43: 282. ♂.

Genus COLOCISTIS Krombein

Colocistis Krombein, 1942. Ent. Soc. Wash. Proc. 44: 65.
Type: *Colocistis pilosa* Krombein. Monob. and orig. desig.

pilosa Krombein. Calif. (San Diego).
Colocistis pilosa Krombein, 1942. Ent. Soc. Wash. Proc. 44: 66. ♂.

Genus GLYPTOMETOPA Ashmead

Glyptometopa Ashmead, 1898. Psyche 8: 251.
Type: *Glyptometopa americana* Ashmead. Monob. and orig. desig.
Glytometopa (!) Fox, 1899. Amer. Ent. Soc. Trans. 25: 289.

americana Ashmead. Calif. (Alameda Co.).
Glyptometopa americana Ashmead, 1898. Psyche 8: 251. ♀.

convergens Mickel and Krombein. Calif. (Santa Monica).
Glyptometopa convergens Mickel and Krombein, 1942. Amer. Midland Nat. 28: 657. ♀.

francisca Mickel and Krombein. Calif. (San Francisco).
Glyptometopa francisca Mickel and Krombein, 1942. Amer. Midland Nat. 28: 656. ♀.

Genus STILBOPOGON Mickel and Krombein

Stilbopogon Mickel and Krombein, 1942. Amer. Midland Nat. 28: 658.
Type: *Stilbopogon alutacea* Mickel and Krombein. Monob. and orig. desig.

alutacea Mickel and Krombein. Tex., N. Mex.
Stilbopogon alutacea Mickel and Krombein, 1942. Amer. Midland Nat. 28: 659. ♀.

Genus GLYPTACROS Mickel and Krombein

Glyptacros Mickel and Krombein, 1942. Amer. Midland Nat. 28: 660.
Type: *Glyptacros angustior* Mickel and Krombein. Orig. desig.

angustior Mickel and Krombein. Ariz.
Glyptacros angustior Mickel and Krombein, 1942. Amer. Midland Nat. 28: 660. ♀.

ashmeadi Mickel and Krombein. No locality given.
Glyptacros ashmeadi Mickel and Krombein, 1942. Amer. Midland Nat. 28: 661. ♀.

Genus XEROGLYPTA Mickel and Krombein

Xeroglypta Mickel and Krombein, 1942. Amer. Midland Nat. 28: 663.
Type: *Xeroglypta egregia* Mickel and Krombein. Monob. and orig. desig.

egregia Mickel and Krombein. Calif. (Palm Springs).
Xeroglypta egregia Mickel and Krombein, 1942. Amer. Midland Nat. 28: 663. ♀.

Genus AULACROS Mickel and Krombein

Aulacros Mickel amd Krombein, 1942. Amer. Midland Nat. 28: 664.
Type: *Aulacros latior* Mickel and Krombein. Monob. and orig. desig.

latior Mickel and Krombein. Calif. (Palm Springs).
Aulacros latior Mickel and Krombein, 1942. Amer. Midland Nat. 28: 665. ♀.

Genus EURYCROS Mickel and Krombein

Eurycros Mickel and Krombein, 1942. Amer. Midland Nat. 28: 666.
Type: *Eurycros furtivus* Mickel and Krombein. Monob. and orig. desig.

furtivus Mickel and Krombein. Ariz. (Tucson, Avondale Ranch).
Eurycros furtivus Mickel and Krombein, 1942. Amer. Midland Nat. 28: 667. ♀.

Genus ASTIGMOMETOPA Mickel and Krombein

Astigmometopa Mickel and Krombein, 1942. Amer. Midland Nat. 28: 668.
Type: *Astigmometopa emarginata* Mickel and Krombein. Monob. and orig. desig.

emarginata Mickel and Krombein. Tex. (Valentine).
Astigmometopa emarginata Mickel and Krombein, 1942. Amer. Midland Nat. 28: 668. ♀.

Genus AGLYPTACROS Mickel and Krombein

Aglyptacros Mickel and Krombein, 1942. Amer. Midland Nat. 28: 669.
Type: *Glyptometopa eureka* Banks. Orig. desig.

eureka (Banks). Ariz. (Palmerlee).
Glyptometopa eureka Banks, 1912. Canad. Ent. 44: 202. ♀.

paxillatus Mickel and Krombein. Colo. (La Junta).
Aglyptacros paxillatus Mickel and Krombein, 1942. Amer. Midland Nat. 28: 673. ♀.

segredentatus Mickel and Krombein. Ariz. (Benson).
Aglyptacros segredentatus Mickel and Krombein, 1942. Amer. Midland Nat. 28: 671. ♀.

sulcatus Mickel and Krombein. Tex. (Valentine).
Aglyptacros sulcatus Mickel and Krombein, 1942. Amer. Midland Nat. 28: 674. ♀.

Subfamily METHOCHINAE

Genus METHOCHA Latreille

Subgenus METHOCHA Latreille

Methocha Latreille, 1804. Nouv. Dict. Hist. Nat., v. 24, p. 179.
Type: *Mutilla articulata* Latreille. Monob.
Methoca (!) Latreille, 1804. Hist. Nat. Crust. Ins., v. 13, p. 268.
Tengyra Latreille, 1809. Gen. Crust. Ins., v. 4, p. 115.
Type: *Tengyra Sanvitali* Latreille. Monob.
Spinolia A. Costa, 1858. Fauna Napoli Scol., p. 21.
Type: *Spinolia italica* A. Costa. Monob.

californica Westwood. Calif. Host: Cicindelid sp.
Methoca californica Westwood, 1881. Ent. Soc. London, Trans., p. 133. ♀.
Biology: Bridwell, 1912. Pacific Coast Ent. Soc., Proc., meeting of Dec. 3, 1912.

nigrior Fox. Wash., Calif.
Methoca nigrior Fox, 1899. Amer. Ent. Soc. Trans. 25: 288. ♂.

stygia (Say). General in south. Canada and U. S. Host: Cicindelid larvae.
Mutilla (Methoca) pacalis Harris, 1835. *In* Hitchcock, Rpt. Geol. Mineral. Bot. Zool. Mass., p. 587. *Nom. nud.*
Tengyra stygia Say, 1836. Boston Jour. Nat. Hist. 1: 299. ♂.
Methoca bicolor Say, 1836. Boston Jour. Nat. Hist. 1: 299. ♀.
Methoca canadensis Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 67. ♂.
Biology: Williams, 1916. Psyche 23: 121–125, pl. 12.

Subfamily MYRMOSINAE

Revision: Krombein, 1940. Amer. Ent. Soc. Trans. 65: 415–465, pl. 24.

Genus MYRMOSA Latreille

Subgenus MYRMOSA Latreille

Myrmosa Latreille, 1796. Précis Caract. Gen. Ins., p. 118.
Type: *Myrmosa atra* Panzer. First included in species.
Ischioceras Provancher, 1882. Nat. Canad. 13: 8.
Type: *Ischioceras rugosa* Provancher. First included species.

blakei Bradley. N. Y., Va.
Myrmosa (Myrmosa) blakei Bradley, 1917. Amer. Ent. Soc. Trans. 43: 251. ♀.

bradleyi Roberts. Wash., Calif.
Myrmosa bradleyi Roberts, 1929. Psyche 36: 362. ♂.

peculiaris Krombein. Kans. (Onaga).
Myrmosa (Myrmosa) peculiaris Krombein, 1940. Amer. Ent. Soc. Trans. 65: 438. ♀.

unicolor Say. N. B. south to N. C., west to B. C. and Ariz. Hosts: *Tiphia* sp.; possibly *Lindenius* (*Trachelosimus*) *columbianus errans* (Fox); *Halictus* (*Chloralictus*) *pruinosus* Rob.; and *H.* (*C.*) *stultus* Cress.
Myrmosa unicolor Say, 1824. *In* Keating, Narr. Long's 2nd. Exped., v. 2, p. 331. ♂.

Ischiocera rugosa Provancher, 1882. Nat. Canad. 13: 8. ♀ (♂ misdet.)
Mutilla thoracica Blake, 1886. Amer. Ent. Soc. Trans. 13: 204. Preocc.
Mutilla erythronota Dalla Torre, 1897. Cat. Hym., v. 8, p. 36. N. name.
Myrmosa (Myrmosa) banksi Bradley, 1917. Amer. Ent. Soc. Trans. 43: 249. ♀ ♂.
Myrmosa dakotensis Weber, 1934. Psyche 41: 57. ♀.
Biology: Melander and Brues, 1903. Biol. Bul. 5: 7.—Krombein, 1940. Amer. Ent. Soc. Trans. 65: 435–436.

Subgenus MYRMOSINA Krombein

Myrmosa, subg. *Myrmosina* Krombein, 1940. Amer. Ent. Soc. Trans. 65: 452.
Type: *Myrmosa (Myrmosina) texana* Krombein. Orig. desig.

nocturna nocturna Krombein. Md., La., Tex., Kans.
Myrmosa (Myrmosina) nocturna nocturna Krombein, 1940. Amer. Ent. Soc. Trans. 65: 454. ♂.

nocturna rufigastra Krombein. Tex., Calif.
Myrmosa (Myrmosina) nocturna rufigastra Krombein, 1940. Amer. Ent. Soc. Trans. 65: 455. ♂.

texana Krombein. Dak., Tex.
Myrmosa (Myrmosina) texana Krombein, 1940. Amer. Ent. Soc. Trans. 65: 453. ♂.

Genus MYRMOSULA Bradley

Myrmosa, subg. *Myrmosula* Bradley, 1917. Amer. Ent. Soc. Trans. 43: 249.
Type: *Myrmosa parvula* Fox. Desig. by Bridwell, 1920.

exaggerata (Krombein), n. comb. Calif.
Myrmosa (Myrmosula) exaggerata Krombein, 1940. Amer. Ent. Soc. Trans. 65: 460. ♀.
Taxonomy: Mickel, 1940. Pan-Pacific Ent. 16: 133.

pacifica (Mickel), n. comb. Calif. (Antioch).
Myrmosa (Myrmosula) pacifica Mickel, 1940. Pan-Pacific Ent. 16: 134. ♀.

parvula (Fox). D. C. south to Ala., west to Mont. and Tex.
Myrmosa parvula Fox, 1893. N. Y. Ent. Soc. Jour. 1: 53. ♂.
Mutilla antisemitica Dalla Torre, 1897. Cat. Hym., v. 8, p. 10. N. name for *Myrmosa parvula* Fox, not *Mutilla parvula* Fabricius.
Brachycistis bimaculatus Fox, 1899. Amer. Ent. Soc. Trans. 25: 285. ♀.

peregrinatrix (Krombein), n. comb. Alta., Ariz., Tex.
Myrmosa (Myrmosula) peregrinatrix Krombein, 1946. Ent. Soc. Wash. Proc. 48: 247. ♀.

rufiventris (Blake). Nev., Oreg.
Myrmosa rufiventris Blake, 1879. Amer. Ent. Soc. Trans. 7: 254. ♂.
Mutilla erythrogastra Dalla Torre, 1897. Cat. Hym., v. 8, p. 36. N. name for *Myrmosa rufiventris* Blake, not *Mutilla rufiventris* Smith.

rutilans (Blake), n. comb. Calif.
Mutilla rutilans Blake, 1879. Amer. Ent. Soc. Trans. 7: 248. ♀.

Family SIEROLOMORPHIDAE

Taxonomy: Melander and Brues, 1932. Harvard Univ., Mus. Compar. Zool. Bul. 73: 500.—Schuster, 1949. Ent. Amer. (n. s.) 29: 124–125.

Genus SIEROLOMORPHA Ashmead

Sierolomorpha Ashmead, 1903. Canad. Ent. 35: 42.
Type: *Sierola* (?) *ambigua* Ashmead. Monob.
Taxonomy: Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 551.

The genus is rather widely distributed in North America (specimens have been seen from New York, Maryland, Georgia, Florida, Louisiana, Texas, New Mexico, Ohio, Illinois, Iowa, North Dakota and Idaho), and

represented by several distinct species. It is impossible here to elucidate the component forms. The Hawaiian *hospes* Perkins may have been introduced from North America.

ambigua (Ashmead). S. Dak. (Brookings).
Sierola (?) ***ambigua*** Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 56. ♂.

canadensis (Provancher), n. comb. Canada (Ottawa). Assigned here by advice of R. M. Schuster, who stated (*in litt.*) that a specimen in the University of Minnesota collection compared with Provancher's type is the same as *ambigua*.
Photopsis Canadensis Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 410. ♂. Secondary homonym in *Mutilla*.
Mutilla tertia Dalla Torre, 1897. Cat. Hym., v. 8, p. 91. N. name.

Family MUTILLIDAE

The author is indebted to Prof. C. E. Mickel and Dr. R. M. Schuster for reading over the first draft of this section. Prof. Mickel has suggested some of the new synonymy proposed herein, and he has been recorded as the authority for it after each pertinent citation.

So far as is known, the North American species of this family, some of which are popularly called "velvet ants" or "cow killers," are parasitic on other aculeate Hymenoptera, mostly on ground-nesting forms.

Taxonomy: Blake, 1886. Amer. Ent. Soc. Trans. 13: 179–286, 21 figs. (N. A. spp.).—Ashmead, 1899. N. Y. Ent. Soc. Jour. 7: 52–60 (gen. of world).—Fox, 1899. Amer. Ent. Soc. Trans. 25: 219–292 (N. A. spp.).—André, 1903. *In* Wytsman, Gen. Ins., fasc. 11, pp. 1–77, 3 pls. (gen. of world).—Melander, 1903. Amer. Ent. Soc. Trans. 29: 291–330, pl. 4 (taxonomic notes and some revised keys).—Bradley, 1916. Amer. Ent. Soc. Trans. 42: 309–336 (spp. of east. U. S.).—Schuster, 1946. Ent. Soc. Amer. Ann. 39: 700–703 (subfam. of New World).—Schuster, 1949. Ent. Amer. 29 (n. s.): 61–64 (key to Neotrop. subfam.).

Subfamily APTEROGYNINAE

Tribe CHYPHOTINI

Genus CHYPHOTES Blake

Chyphotes Blake, 1886. Amer. Ent. Soc. Trans. 13: 276.
Type: ***Chyphotes elevatus*** Blake. Monob. and orig. desig.
Blaketa Pate, 1948. Ent. News 59: 41. N. name.
Revision: Buzicky, 1941. Ent. Amer. 21 (n. s.): 201–243.

Pate states that *Chyphotes* Blake is a homonym of *Cyphotes* Burmeister, 1835, since both have the same etymology (Opin. 147, Internatl. Comn. Zool. Nomencl.). Inasmuch as *Chyphotes* is the basis for a tribal name in the Mutillidae and has been used in the modern revision of the group, it would be desirable to conserve it if possible. Since Blake gives no derivation for his name, it is recommended that the name be considered an arbitrary combination of letters (Article 8, Recommendation k, Internatl. Rules Zool. Nomencl.), and therefore not of the same derivation as *Cyphotes*. *Chyphotes* and *Cyphotes* are widely separated zoologically as well as alphabetically, so no confusion should arise from having both names in current usage.

albipes (Cresson). Alta. south to Colo., west to Wash. and Calif.
Agama albipes Cresson, 1874. Amer. Ent. Soc. Trans. 5: 99. ♂.
Chyphotes nevadensis Baker, 1905. Invertebrata Pacifica 1: 118. ♂.

attenuatus (Blake). Kans. south to Tex., west to Oreg. and Calif.
Agama attenuata Blake, 1872. Amer. Ent. Soc. Trans. 4: 76. ♂.
Photopsis mellipes Blake, 1886. Amer. Ent. Soc. Trans. 13: 262. ♂.
Photopsis picus Cockerell, 1895. Amer. Ent. Soc. Trans. 22: 289. ♂.
Mutilla picas (!) Dalla Torre, 1897. Cat. Hym., v. 8, p. 73.
Mutilla tenula Dalla Torre, 1897. Cat. Hym., v. 8, p. 91. N. name. for *Agama attenuata* Blake, not *Mutilla attenuata* Spinola.

auripilus Buzicky. Calif. (Riverside).
Chyphotes auripilus Buzicky, 1941. Ent. Amer. 21 (n. s.): 232. ♂.

belfragei (Blake). Kans. south to Tex., west to Colo. and Ariz.
Agama Belfragei Blake, 1871. Amer. Ent. Soc. Trans. 3: 263. ♂.

bicolor Schuster. Calif. (San Diego).
Chyphotes bicolor Schuster, 1945. Pan-Pacific Ent. 21: 89. ♀.

bruscus Buzicky. Ariz., Calif.
Chyphotes bruscus Buzicky, 1941. Ent. Amer. 21 (n. s.): 214. ♂.

calexicensis Bradley. Calif. (Calexico).
Chyphotes calexicensis Bradley, 1917. Amer. Ent. Soc. Trans. 43: 284. ♂.

californicus Baker. Calif. (Calexico).
Chyphotes californicus Baker, 1905. Invertebrata Pacifica 1: 117. ♂.

elevatus Blake. Colo., Tex., N. Mex., Ariz.
Chyphotes elevatus Blake, 1886. Amer. Ent. Soc. Trans. 13: 276. ♀.

epedaphus Buzicky. Ariz., Utah, Calif.
Chyphotes epedaphus Buzicky, 1941. Ent. Amer. 21 (n. s.): 231. ♀.

heathii Melander. Calif. (Pacific Grove).
Chyphotes Heathii Melander, 1903. Amer. Ent. Soc. Trans. 29: 326. ♂.

jugatus Buzicky. Calif.
Chyphotes jugatus Buzicky, 1941. Ent. Amer. 21 (n. s.): 222. ♂.

melaniceps (Blake). Tex. west to Calif., north to Oreg. and Idaho.
Photopsis melaniceps Blake, 1886. Amer. Ent. Soc. Trans. 13: 264. ♂.
Photopsis belfragei var. *melaniceps* Cockerell, 1895. Amer. Ent. Soc. Trans. 22: 291. ♂.
Chyphotes piceiceps Baker, 1905. Invertebrata Pacifica 1: 116. ♂.

mickeli mickeli Buzicky. N. Mex., Ariz., Calif.
Chyphotes mickeli mickeli Buzicky, 1941. Ent. Amer. 21 (n. s.): 217. ♂.

mickeli polingi Buzicky. Tex. (Ft. Davis).
Chyphotes mickeli polingi Buzicky, 1941. Ent. Amer. 21 (n. s.): 219. ♂.

nubeculus (Cresson). Kans., Colo., N. Mex., Ariz., Mont.
Mutilla nubecula Cresson, 1865. Ent. Soc. Phila. Proc. 4: 440. ♂.

pallidus Buzicky. Tex. west to Calif.
Chyphotes pallidus Buzicky, 1941. Ent. Amer. 21 (n. s.): 226. ♂.

peninsularis Fox. Ariz., Calif.
Chyphotes peninsularis Fox, 1899. Amer. Ent. Soc. Trans. 25: 277. ♂.

petiolatus Fox. Tex., Ariz., Calif.
Chyphotes petiolatus Fox, 1899. Amer. Ent. Soc. Trans. 25: 277. ♀.

pixus Buzicky. Ariz. (Gila Bend).
Chyphotes pixus Buzicky, 1941. Ent. Amer. 21 (n. s.): 227. ♀.

punctatus Fox. Ariz. (Chiricahua Mts.).
Chyphotes punctatus Fox, 1899. Amer. Ent. Soc. Trans. 25: 276. ♀.

segregatus Buzicky. Tex., Ariz.
Chyphotes segregatus Buzicky, 1941. Ent. Amer. 21 (n. s.): 229. ♀.

similis Baker. Utah, Calif.
Chyphotes similis Baker, 1905. Invertebrata Pacifica 1: 117. ♂.

striatus Buzicky. Ariz.
Chyphotes striatus Buzicky, 1941. Ent. Amer. 21 (n. s.): 228. ♀.

subulatus Buzicky. Ariz.

Chyphotes subulatus Buzicky, 1941. Ent. Amer. 21 (n. s.): 224. ♂.

testaceipes Fox. Ariz. (Phoenix).
Chyphotes testaceipes Fox, 1899. Amer. Ent. Soc. Trans. 25: 277. ♀.

Genus PITANTA Pate

Pitanta Pate, 1947. Notulae Nat. 192: 1.
Type: ***Pitanta mojave*** Pate. Monob. and orig. desig.

mojave Pate. Calif. (Mojave Desert).
Pitanta mojave Pate, 1947. Notulae Nat. 192: 3. ♂.

Subfamily TYPHOCTINAE

Genus TYPHOCTES Ashmead

Typhoctes Ashmead, 1899. N. Y. Ent. Soc. Jour. 7: 53.
Type: ***Mutilla peculiaris*** Cresson. Monob. and orig. desig.
Anommutilla Mickel, 1936. Ent. Soc. Amer. Ann. 29: 295. N. syn.
Type: ***Anommutilla difficilis*** Mickel. Monob. and orig. desig.

peculiaris (Cresson). Kans. south to Tex., west to Idaho and Calif.
Mutilla peculiaris Cresson, 1875. Amer. Ent. Soc. Trans. 5: 119. ♀.
Chyphotes mirabilis Cockerell, 1896. Canad. Ent. 28: 285. ♀.
Anommutilla difficilis Mickel, 1936. Ent. Soc. Amer. Ann. 29: 295. ♂. N. syn.

Subfamily SPHAEROPTHALMINAE

Genus PROTOPHOTOPSIS Schuster

Subgenus PROTOPHOTOPSIS Schuster

Protophotopsis Schuster, 1947. Ent. Soc. Amer. Ann. 39: 693.
Type: ***Protophotopsis scudderi*** Schuster. Monob. and orig. desig.
Taxonomy: Schuster, 1949. Ent. Amer. 29 (n. s.): 82–85.

scudderi Schuster. Kans., Tex., Colo.
Protophotopsis scudderi Schuster, 1947. Ent. Soc. Amer. Ann. 39: 694. ♂.

?venenaria (Melander). Kans., Tex., Calif.
Mutilla venenaria Melander, 1903. Amer. Ent. Soc. Trans. 29: 320. ♀.
Taxonomy: Schuster, 1949. Ent. Amer. 29 (n. s.): 83.

Genus PHOTOMORPHUS Viereck

Photomorphus Viereck, 1903. Ent. News 14: 249.
Type: ***Photomorphus Johnsoni*** Viereck. Orig. desig.
Revision: Schuster, 1944. Brooklyn Ent. Soc. Bul. 39: 147–151 (east. spp. only).

alogus Viereck. Ga., Miss.
Photomorphus alogus Viereck, 1903. Ent. News 14: 251. ♂.

banksi (Bradley). N. J. south to Fla.
Sphaerophthalma (!) ***(Photomorphus) banksi*** Bradley, 1916. Amer. Ent. Soc. Trans. 42: 331. ♂.

crepusculus (Viereck), n. comb. Kans. (Morton Co.).
Mutilla (Photomorphus?) crepuscula Viereck, 1906. Amer. Ent. Soc. Trans. 32: 188. ♂.

johnsoni Viereck. N. J., Va.
Photomorphus Johnsoni Viereck, 1903. Ent. News 14: 249. ♂.

johnsoni var. **argentipilis** Schuster. N. C., Ga.
Photomorphus johnsoni var. ***argentipilis*** Schuster, 1944. Brooklyn Ent. Soc. Bul. 39: 148. ♂.

myrmicoides (Cockerell). Ala., Tex., Ill., Iowa, Kans.
Mutilla parvula Blake, 1886. Amer. Ent. Soc. Trans. 13: 206. ♀.
Preocc.

Sphaerophthalma (!) ***myrmicoides*** Cockerell, 1895. Ent. News 6: 62. ♀.
Mutilla impar Melander, 1903. Amer. Ent. Soc. Trans. 29: 321. ♀.
Taxonomy: Mickel, 1934. Ent. Soc. Amer. Ann. 27: 611. ♀ ♂.

quintilis (Viereck), n. comb. Iowa, Kans., La.
Mutilla (*Photomorphus*) ***quintilis*** Viereck, 1906. Amer. Ent. Soc. Trans. 32: 187. ♂.

rubroscutellatus (Bradley). Va. (Falls Church).
Sphaerophthalma (!) (*Photomorphus*) ***rubroscutellatus*** Bradley, 1916. Amer. Ent. Soc. Trans. 42: 332. ♂.

Genus MICROMUTILLA Ashmead

Micromutilla Ashmead, 1899. N. Y. Ent. Soc. Jour. 7: 59.
Type: ***Photopsis nanus*** Ashmead. Monob. and orig. desig.

ashmeadii (Fox). Ariz. (Tucson).
Photopsis nanus Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 181. ♂. Preocc.
Mutilla Ashmeadii Fox, 1899. Amer. Ent. Soc. Trans. 25: 289. N. name.

Genus SPHAEROPTHALMA Blake

Sphaeropthalma Blake, 1871. Amer. Ent. Soc. Trans. 3: 232.
Type: (*Mutilla* (*Sphaeropthalma*) *scaeva* Blake)=*Sphaeropthalma pennsylvanica scaeva* (Blake). Automatic desig.
Sphaerophthalma (!) Blake, 1886. Amer. Ent. Soc. Trans. 13: 179.
Type: (*Mutilla* (*Sphaeropthalma*) *scaeva* Blake)=*Sphaeropthalma pennsylvanica scaeva* (Blake). Desig. by Ashmead, 1899.
Revision: Schuster, 1944. Brooklyn Ent. Soc. Bul. 39: 141–147.

albiplumosa Schuster. Tex.
Sphaerophthalma (!) ***albiplumosa*** Schuster, 1944. Brooklyn Ent. Soc. Bul. 39: 145. ♀.

auripilis (Blake). Okla., Tex. Hosts: *Chalybion californicum* (Sauss.); *Sceliphron caementarium* (Drury); *Trypoxylon* sp.
Mutilla (*Sphaeropthalma*) ***auripilis*** Blake, 1871. Amer. Ent. Soc. Trans. 3: 233. ♂.
Biology: Rau, 1940. Ent. Soc. Amer. Ann. 33: 594.

boweri Schuster. Tex. (College Station).
Sphaerophthalma (!) ***boweri*** Schuster, 1944. Brooklyn Ent. Soc. Bul. 39: 143. ♂.

pennsylvanica floridensis Schuster. Fla. (Sarasota).
Sphaerophthalma (!) ***pennsylvanica floridensis*** Schuster, 1944. Brooklyn Ent. Soc. Bul. 39: 142. ♀.

pennsylvanica pennsylvanica (Lepeletier). N. C., Ga., ?Fla., La., Mo., Kans., Tex. Hosts: *Sceliphron caementarium* (Drury); *Trypoxylon politum* Say; anthidiine sp.
Mutilla pensylvanica (!) Lepeletier, 1845. Hist. Nat. Ins. Hym., v. 3, p. 628. ♂.
Mutilla (*Sphaeropthalma*) ***pennsylvanica*** Blake, 1871. Amer. Ent. Soc. Trans. 3: 233. ♂.
Mutilla (*Sphaeropthalma*) ***balteola*** Blake, 1871. Amer. Ent. Soc. Trans. 3: 248. ♀.
Taxonomy: Bradley, 1916. Amer. Ent. Soc. Trans. 42: 331.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 7.—Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 437.

pennsylvanica scaeva (Blake). Mass. to Va., ?Tex. Hosts: *Pilpomus architectus* (Say); *P. mellipes* (Say); *Sceliphron caementarium* (Drury).
Mutilla (*Sphaeropthalma*) ***scaeva*** Blake, 1871. Amer. Ent. Soc. Trans. 3: 232. ♂.
Taxonomy: Bradley, 1916. Amer. Ent. Soc. Trans. 42: 331.

Genus PHOTOPSIS Blake

Agama Blake, 1871. Amer. Ent. Soc. Trans. 3: 258. Preocc.
Type: ***Agama imperialis*** Blake. Automatic desig. by Ashmead, 1899.
Photopsis Blake, 1886. Amer. Ent. Soc. Trans. 13: 179. N. name.
Type: ***Agama imperialis*** Blake. Desig. by Ashmead, 1899.
Pyrrhomutilla Ashmead, 1899. N. Y. Ent. Soc. Jour. 7: 56.
Type: ***Sphaerophthalma*** (!) ***anthophorae*** Ashmead. Monob. and orig. desig.
Neophotopsis Ashmead, 1903. Canad. Ent. 35: 306.
Type: ***Mutilla pluto*** Fox. Monob. and orig. desig.

abdominalis Blake. Colo.
Photopsis abdominalis Blake, 1886. Amer. Ent. Soc. Trans. 13: 275. ♂.
Mutilla coloradensis Dalla Torre, 1897. Cat. Hym., v. 8, p. 25. N. name for *Photopsis abdominalis* Blake, not *Mutilla abdominalis* Westwood.

abstrusa Baker. Calif. (Claremont).
Photopsis abstrusa Baker, 1905. Invertebrata Pacifica 1: 113. ♂.

acontia (Fox), n. comb. N. Mex.
Mutilla acontius Fox, 1899. Amer. Ent. Soc. Trans. 25: 266. ♂.
Taxonomy: Melander, 1904. Amer. Ent. Soc. Trans. 29: 318. ♂.

albicincta (Fox), n. comb. N. Mex., Ariz.
Mutilla albicincta Fox, 1899. Amer. Ent. Soc. Trans. 25: 255. ♂.

albopilosa (Blake), n. comb. Tex. (Comal Co.).
Mutilla albopilosa Blake, 1874. Amer. Ent. Soc. Trans. 4: 74. ♀.

amphion (Fox). Nev.
Mutilla amphion Fox, 1899. Amer. Ent. Soc. Trans. 25: 263. ♂.

anaspasia Cockerell and Rohwer. Colo. (Boulder).
Photopsis anaspasia Cockerell and Rohwer, 1908. Psyche 15: 5. ♀.

anthophorae (Ashmead). Ariz., Calif. Hosts: *Anthophora montana* Cress.; *Ashmeadiella californica californica* (Ashm.).
Sphaerophthalma (!) ***anthophorae*** Ashmead, 1897. *In* Davidson, South. Calif. Acad. Sci. Proc. 1: 5. ♀ ♂.
Dasymutilla sumneriella Cockerell, 1915. Entomologist 48: 249. ♀. N. syn.
Biology: Davidson, 1897. South. Calif. Acad. Sci. Proc. 1: 4–5.

arota (Cresson), n. comb. Calif. (San Diego).
Mutilla Arota Cresson, 1875. Amer. Ent. Soc. Trans. 5: 120. ♀.

aspasia (Blake), n. comb. Nev.
Mutilla Aspasia Blake, 1879. Amer. Ent. Soc. Trans. 7: 250. ♀.

auraria (Blake). Nev., Calif. Host: *Anthophora linsleyi* Timberlake.
Mutilla auraria Blake, 1879. Amer. Ent. Soc. Trans. 7: 248. ♀.
Biology: Linsley and MacSwain, 1942. Amer. Midland Nat. 27: 409.

bellerophon (Fox), n. comb. Tex., N. Mex., Ariz.
Mutilla bellerophon Fox, 1899. Amer. Ent. Soc. Trans. 25: 254. ♂.
Taxonomy: Melander, 1903. Amer. Ent. Soc. Trans. 29: 307. ♂.

bicolor (Blake). Tex., Ariz.
Agama bicolor Blake, 1879. Amer. Ent. Soc. Trans. 7: 252. ♂.
Mutilla madejskii Dalla Torre, 1897. Cat. Hym., v. 8, p. 56. N. name for *Agama bicolor* Blake, not *Mutilla bicolor* Pallas.
Taxonomy: Fox, 1899. Amer. Ent. Soc. Trans. 25: 259–260. ♂ (in key to group *imperialis*).

brachyptera Schuster. Calif. (Berkeley).
Photopsis brachyptera Schuster, 1945. Pan-Pacific Ent. 21: 149. ♂.

capricornis Rohwer. Colo. (Boulder).
Photopsis capricornis Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 131. ♀.

ceres (Fox), n. comb. Ariz., Colo., Utah.
Mutilla ceres Fox, 1899. Amer. Ent. Soc. Trans. 25: 257. ♀.

clara (Cresson). Colo.
Mutilla clara Cresson, 1865. Ent. Soc. Phila. Proc. 4: 439. ♂.

contracta (Blake). Nev.
Agama contracta Blake, 1879. Amer. Ent. Soc. Trans. 7: 253. ♂.
Mutilla contrahenda Dalla Torre, 1897. Cat. Hym., v. 8, p. 27. N. name for *Agama contracta* Blake, not *Mutilla contracta* Say.

difficilis Baker. Calif. (Claremont).
Photopsis difficilis Baker, 1905. Invertebrata Pacifica 1: 114. ♂.

diomeda (Fox), n. comb. Tex.
Mutilla diomeda Fox, 1899. Amer. Ent. Soc. Trans. 25: 257. ♀.

dirce (Fox), n. comb. Ariz., Utah, Tex.
Mutilla dirce Fox, 1899. Amer. Ent. Soc. Trans. 25: 258. ♀.

edwardsii (Cresson), n. comb. Wash., Oreg., Calif.
Mutilla Edwardsii Cresson, 1875. Amer. Ent. Soc. Trans. 5: 119. ♂.

erato (Blake), n. comb. Tex.
Mutilla Erato Blake, 1879. Amer. Ent. Soc. Trans. 7: 251. ♀.

erigone (Fox), n. comb. Colo.
Mutilla erigone Fox, 1899. Amer. Ent. Soc. Trans. 25: 268. ♀.

ferruginea (Blake). Nev., ?Calif. Host: *Chlorion* (*Isodontia*) *elegans* (Smith).
Agama ferruginea Blake, 1879. Amer. Ent. Soc. Trans. 7: 254. ♂.
Mutilla ferruginosa Dalla Torre, 1897. Cat. Hym., v. 8, p. 40. N. name for *Agama ferruginea* Blake, not *Mutilla ferruginea* Smith.
?*Photopsis ferrugineo* (!) Davidson, 1899. Ent. News 10: 180.
Biology: Davidson, 1899. Ent. News 10: 180.

halcyone (Fox), n. comb. Kans. (Hamilton Co.).
Mutilla halcyone Fox, 1899. Amer. Ent. Soc. Trans. 25: 257. ♀.

helicaon (Fox), n. comb. Nev.
Mutilla helicaon Fox. 1899. Amer. Ent. Soc. Trans. 25: 254. ♂.

hubbardii (Fox), n. comb. Ariz.
Mutilla Hubbardii Fox, 1899. Amer. Ent. Soc. Trans. 25: 256. ♂.

hyalina (Blake). Tex.
Agama hyalina Blake, 1871. Amer. Ent. Soc. Trans. 3: 263. ♂.
Agama minuta Blake, 1872. Amer. Ent. Soc. Trans. 4: 76. ♂.

hypermnestra (Fox), n. comb. Calif. (Poway).
Mutilla hypermnestra Fox, 1899. Amer. Ent. Soc. Trans. 25: 268. ♀.

ilione (Fox), n. comb. Tex. (Fedor).
Mutilla ilione Fox, 1899. Amer. Ent. Soc. Trans. 25: 268. ♀.

imperialiformis (Viereck), n. comb. Kans., Ariz.
Mutilla (*Photopsis*) *imperialiformis* Viereck, 1906. Amer. Ent. Soc. Trans. 32: 189. ♂.

imperialis (Blake). Tex.
Agama imperialis Blake, 1871. Amer. Ent. Soc. Trans. 3: 260. ♂.

indigens Baker. Nev. (Ormsby Co.).
Photopsis indigens Baker, 1905. Invertebrata Pacifica 1: 112. ♂.

ingenua Baker. ?Calif.
Photopsis ingenuus Baker, 1905. Invertebrata Pacifica 1: 116. ♂.

insignis Baker. Calif. (Claremont).
Photopsis insignis Baker, 1905. Invertebrata Pacifica 1: 115. ♂.

jason (Fox), n. comb. Tex.
Mutilla jason Fox, 1899. Amer. Ent. Soc. Trans. 25: 250. ♂.

juxta (Blake). Tex.
Agama juxta Blake, 1872. Amer. Ent. Soc. Trans. 4: 76. ♂.

laodamia (Fox), n. comb. Ariz.
Mutilla laodamia Fox, 1899. Amer. Ent. Soc. Trans. 25: 258. ♀.

lingulata Viereck. Calif. (La Jolla).

Photopsis lingulatus Viereck, 1903. Acad. Nat. Sci. Phila. Proc. 54: 737. ♂.

marpesia (Blake), n. comb. Kans., Utah.
Mutilla Marpesia Blake, 1879. Amer. Ent. Soc. Trans. 7: 247. ♀.
Sphaerophthalma (!) ***luteola*** Blake, 1886. Amer. Ent. Soc. Trans. 13: 235. ♀.

melanderi Baker. Tex. (Coryell Co.).
Photopsis melanderi Baker, 1905. Invertebrata Pacifica 1: 112. ♂.

mendica (Blake). Nev., Utah.
Agama mendica Blake, 1871. Amer. Ent. Soc. Trans. 3: 259. ♂.

mesillensis Cockerell. N. Mex. (Mesilla).
Photopsis mesillensis Cockerell, 1897. Entomologist 30: 137. ♂.

minutella Mickel. Calif. (Lassen Co.).
Photopsis minutella Mickel, 1938. Pan-Pacific Ent. 14: 183. ♀.

nanula (Dalla Torre), n. comb. Tex., Colo., Nev.
Mutilla pygmea Blake, 1879. Amer. Ent. Soc. Trans. 7: 250. ♀. Preocc.
Mutilla nanula Dalla Torre, 1897. Cat. Hym., v. 8, p. 65. N. name.
Mutilla pygmaea (!) Dalla Torre, 1897. Cat. Hym., v. 8, p. 65.

noctivaga (Melander), n. comb. Tex.
Mutilla noctivaga Melander, 1903. Amer. Ent. Soc. Trans. 29: 318. ♂.

nokomis (Blake). Tex., Ariz.
Agama Nokomis Blake, 1871. Amer. Ent. Soc. Trans. 3: 260. ♂.

nudata Baker. Calif. (Claremont).
Photopsis nudata Baker, 1905. Invertebrata Pacifica 1: 114. ♂.

orestes (Fox), n. comb. ?Southwest. U. S.
Mutilla orestes Fox, 1899. Amer. Ent. Soc. Trans. 25: 256. ♂.

palamedes (Fox), n. comb. Tex.
Mutilla palamedes Fox, 1899. Amer. Ent. Soc. Trans. 25: 264. ♂.

pallida (Blake). Tex.
Agama pallida Blake, 1871. Amer. Ent. Soc. Trans. 3: 263. ♂.
Taxonomy: Fox, 1899. Amer. Ent. Soc. Trans. 25: 259–260. ♂ (in key to group *imperialis*).

pattersonae (Melander), n. comb. Calif. (Fort Washington).
Mutilla Pattersonae Melander, 1903. Amer. Ent. Soc. Trans. 29: 309. ♂.

pedata Baker. Calif. (Claremont).
Photopsis pedatus Baker, 1905. Invertebrata Pacifica 1: 115. ♂.

pervaga (Melander), n. comb. Tex. (Fedor).
Mutilla pervaga Melander, 1903. Amer. Ent. Soc. Trans. 29: 321. ♀.

phaedra (Blake), n. comb. Tex., Nev.
Mutilla Phaedra Blake, 1879. Amer. Ent. Soc. Trans. 7: 251. ♀.

pluto (Fox). Tex.
Mutilla pluto Fox, 1899. Amer. Ent. Soc. Trans. 25: 255. ♂.

rustica (Blake). Calif.
Agama rustica Blake, 1879. Amer. Ent. Soc. Trans. 7: 252. ♂.

salmani Mickel. Calif. (Lassen Co.).
Photopsis salmani Mickel, 1938. Pan-Pacific Ent. 14: 178. ♀ ♂.

sanctae-feae (Cockerell and Fox), n. comb. N. Mex. (Santa Fe).
Mutilla sanctae-feae Cockerell and Fox, 1897. Acad. Nat. Sci. Phila. Proc., p. 137. ♀.

seminanula Rohwer. Colo. (Boulder).
Photopsis seminanula Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 103. ♀.

triangularis (Blake). Tex., Ariz.
Agama triangularis Blake, 1871. Amer. Ent. Soc. Trans. 3: 262. ♂.

unicolor (Cresson). Calif. Host: *Chlorion* (*Isodontia*) *elegans* (Smith).
Mutilla unicolor Cresson, 1865. Ent. Soc. Phila., Proc. 4: 389. ♂.
Mutilla monochroa Dalla Torre, 1897. Cat. Hym., v. 8, p. 63. N. name for *Mutilla unicolor* Cresson, not *Myrmosa unicolor* Say.
Biology: Davidson, 1899. Ent. News 10: 180.

uniformis Baker. Calif. (Claremont).
Photopsis uniformis Baker, 1905. Invertebrata Pacifica 1: 113. ♂.

uro (Blake). Tex., Ariz.
Agama uro Blake, 1879. Amer. Ent. Soc. Trans. 7: 253. ♂.

virguncula (Blake), n. comb. N. Mex.
Mutilla virguncula Blake, 1886. Amer. Ent. Soc. Trans. 13: 253. ♀.

zenobia (Blake), n. comb. Calif., ?Tex.
Mutilla zenobia Blake, 1879. Amer. Ent. Soc. Trans. 7: 250. ♀.

zephyritis (Fox), n. comb. Calif. (Los Angeles).
Mutilla zephyritis Fox, 1899. Amer. Ent. Soc. Trans. 25: 269. ♀.

Genus ODONTOPHOTOPSIS Viereck

Odontophotopsis Viereck, 1903. Acad. Nat. Sci. Phila. Proc. 54: 738.
Type: *Odontophotopsis exogyrus* Viereck. Orig. desig.
Revision: Viereck, 1904. Amer. Ent. Soc. Trans. 30: 81–92.

acmaea Viereck. Ariz. (Yuma).
Odontophotopsis acmaeus Viereck, 1904. Amer. Ent. Soc. Trans. 30: 84. ♂.

adonis (Fox). N. Mex. (Las Cruces).
Mutilla adonis Fox, 1899. Amer. Ent. Soc. Trans. 25: 265. ♂.

alamonis Viereck. Tex., N. Mex.
Odontophotopsis alamonis Viereck, 1904. Amer. Ent. Soc. Trans. 30: 87. ♂.

alemon (Fox). Tex., N. Mex.
Mutilla alemon Fox, 1899. Amer. Ent. Soc. Trans. 25: 266. ♂.

annulata Baker. Calif. (Claremont).
Odontophotopsis annulatus Baker, 1905. Invertebrata Pacifica 1: 94. ♂.

atripes Mickel. Calif. (Lassen Co.).
Odontophotopsis atripes Mickel, 1938. Pan-Pacific Ent. 14: 182. ♂.

augusta Viereck. N. Mex. (St. Augustine).
Odontophotopsis augustus Viereck, 1904. Amer. Ent. Soc. Trans. 30: 90. ♂.

aulus (Blake). Tex.
Agama Aulus Blake, 1872. Amer. Ent. Soc. Trans. 4: 75. ♂.

avellana Viereck. Tex.
Odontophotopsis avellanus Viereck, 1904. Amer. Ent. Soc. Trans. 30: 88. ♂.

bradleyi (Schuster), n. comb. S. C. (Clemson).
Photopsis bradleyi Schuster, 1944. Brooklyn Ent. Soc. Bul. 39: 152. ♀.

brevicornis (Fox). Tex., Ariz., Mont.
Mutilla brevicornis Fox, 1899. Amer. Ent. Soc. Trans. 25: 255. ♂.

clandestina Viereck. Tex., N. Mex.
Odontophotopsis clandestinus Viereck, 1903. Acad. Nat. Sci. Phila. Proc. 54: 740. ♂.

cockerelli (Melander). Tex. (Cuero).
Mutilla Cockerelli Melander, 1903. Amer. Ent. Soc. Trans. 29: 307. ♂.

concolor (Cresson). Tex., N. Mex., Colo., Idaho, Calif.
Mutilla concolor Cresson, 1865. Ent. Soc. Phila. Proc. 4: 390. ♂.

cookii Baker. Calif. (Claremont).
Odontophotopsis cookii Baker, 1905. Invertebrata Pacifica 1: 93. ♂.

crassa Viereck. B. C., Calif.
Odontophotopsis crassus Viereck, 1924. Canad. Ent. 56: 112. ♂.

crucis Viereck. N. Mex. (Las Cruces).
Odontophotopsis crucis Viereck, 1904. Amer. Ent. Soc. Trans. 30: 86. ♂.

danaus (Blake). Tex., N. Mex.
Agama Danaus Blake, 1871. Amer. Ent. Soc. Trans. 3: 261. ♂.

delodonta Viereck. Ariz.
Odontophotopsis delodontus Viereck, 1904. Amer. Ent. Soc. Trans. 30: 91. ♂.

erebus (Melander). N. Mex., Ariz.
Mutilla Erebus Melander, 1903. Amer. Ent. Soc. Trans. 29: 312. ♂.

exogyra Viereck. Calif. (La Jolla).
Odontophotopsis exogyrus Viereck, 1903. Acad. Nat. Sci. Phila. Proc. 54: 738. ♂.

fallax Viereck. Nev.
Odontophotopsis fallax Viereck, 1904. Amer. Ent. Soc. Trans. 30: 89. ♂.

grata (Melander). N. Mex. (La Cueva).
Mutilla grata Melander, 1903. Amer. Ent. Soc. Trans. 29: 308. ♂.

hamata (Melander). N. Mex. (La Cueva).
Mutilla hamata Melander, 1903. Amer. Ent. Soc. Trans. 29: 314. ♂.

hebes (Melander). N. Mex.
Mutilla hebes Melander, 1903. Amer. Ent. Soc. Trans. 29: 311. ♂.

inconspicua (Blake). Calif.
Photopsis inconspicuus Blake, 1886. Amer. Ent. Soc. Trans. 13: 272. ♂.
Mutilla infelix Dalla Torre, 1897. Cat. Hym., v. 8, p. 50. N. name for *Photopsis inconspicuus* Blake, not *Mutilla inconspicua* Smith.

indotata Viereck. Tex.
Odontophotopsis indotatus Viereck, 1904. Amer. Ent. Soc. Trans. 30: 89. ♂.

melanderella Krombein, n. name. Tex.
Mutilla simpliciventris Melander, 1903 (Oct.). Amer. Ent. Soc. Trans. 29: 315. ♂. Preocc. by André, July, 1903.

melicausa (Blake). Tex. (Dimmit Co.).
Agama melicausa Blake, 1871. Amer. Ent. Soc. Trans. 3: 261. ♂.

mellicornis Baker. ?Calif.
Odontophotopsis mellicornis Baker, 1905. Invertebrata Pacifica 1: 96. ♂.

obliqua Viereck. B. C. (Oliver).
Odontophotopsis obliquus Viereck, 1924. Canad. Ent. 56: 112. ♂.

ocellata Baker. Nev. (Ormsby Co.).
Odontophotopsis ocellatus Baker, 1905. Invertebrata Pacifica 1: 98. ♂.

paula (Bradley), n. comb. Ga. (Decatur Co.).
Photopsis (*Odontophotopsis*) *paula* Bradley, 1916. Amer. Ent. Soc. Trans. 42: 333. ♂.
Taxonomy: Schuster, 1944. Brooklyn Ent. Soc. Bul. 39: 154. ♂.

pudica (Melander). Wash. (Wenas Valley).
Mutilla pudica Melander, 1903. Amer. Ent. Soc. Trans. 29: 309. ♂.

sarpedon (Fox). Tex.
Mutilla sarpedon Fox, 1899. Amer. Ent. Soc. Trans. 25: 267. ♂.

serca Viereck. Calif. (Bakersfield). Host: *Anthophora linsleyi* Timberlake.
Odontophotopsis sercus Viereck, 1904. Amer. Ent. Soc. Trans. 30: 87. ♂.
Biology: Linsley and MacSwain, 1942. Amer. Midland Nat. 27: 409.

spinci floridensis (Schuster), n. comb. Fla. (Englewood).
Photopsis (*Odontophotopsis spinci floridensis* Schuster, 1944. Brooklyn Ent. Soc. Bul. 39: 155. ♂.

spinci spinci (Bradley), n. comb. N. C., Ga.
Photopsis (*Odontophotopsis*) *spinci* Bradley, 1916. Amer. Ent. Soc. Trans. 42: 335. ♂.
Photopsis (*Odontophotopsis*) *spinci spinci* Schuster, 1944. Brooklyn Ent. Soc. Bul. 39: 154. ♂.

subtenuis Viereck. S. Dak., Tex.
Odontophotopsis subtenuis Viereck, 1904. Amer. Ent. Soc. Trans. 30: 85. ♂.
Taxonomy: Bradley, 1916. Amer. Ent. Soc. Trans. 42: 336. ♂.

succinea Viereck. Calif.
Odontophotopsis succineus Viereck, 1903. Acad. Nat. Sci. Phila. Proc. 54: 741. ♂.

tapajos (Blake). Tex., Ariz.
Agama Tapajos Blake, 1871. Amer. Ent. Soc. Trans. 3: 262. ♂.
Agama Astyanax Blake, 1879. Amer. Ent. Soc. Trans. 7: 254. ♂.
Mutilla astynax (!) Fox, 1899. Amer. Ent. Soc. Trans. 25: 266. ♂.

territa (Cockerell). N. Mex. (Las Cruces).
Photopsis territus Cockerell, 1894. Ent. News 5: 200. ♂.

thamyras (Fox). Tex.
Mutilla thamyras Fox, 1899. Amer. Ent. Soc. Trans. 25: 267. ♂.

trita (Melander). N. Mex. (Las Cruces).
Mutilla trita Melander, 1903. Amer. Ent. Soc. Trans. 29: 317. ♂.

truncula Viereck. Tex.
Odontophotopsis trunculus Viereck, 1904. Amer. Ent. Soc. Trans. 30: 85. ♂.

viereckii Baker. Nev. (Ormsby Co.).
Odontophotopsis viereckii Baker, 1905. Invertebrata Pacifica 1: 97. ♂.

westcottii (Melander). N. Mex. (Albuquerque).
Mutilla Westcottii Melander, 1903. Amer. Ent. Soc. Trans. 29: 310. ♂.

wheeleri (Melander). Tex. (Austin).
Mutilla Wheeleri Melander, 1903. Amer. Ent. Soc. Trans. 29: 316. ♂.

Genus TETRAPHOTOPSIS Ashmead

Tetraphotopsis Ashmead, 1903. Canad. Ent. 35: 305.
Type: ***Tetraphotopsis Hubbardi*** Ashmead. Monob. and orig. desig. (Not *Mutilla Hubbardii* Fox as cited by Mickel, 1928. U. S. Natl. Mus. Bul. 143: 37.)

hubbardi Ashmead. North America.
Tetraphotopsis Hubbardi Ashmead, 1903. Canad. Ent. 35: 305. ♂.

venusta (Blake), n. comb. Ariz.
Photopsis venustus Blake, 1886. Amer. Ent. Soc. Trans. 13: 270. ♂.
Mutilla pretiosissima Dalla Torre, 1897. Cat. Hym., v. 8, p. 74. N. name for *Photopsis venustus* Blake, not *Mutilla venusta* Smith.

Genus MORSYMA Fox

Morsyma Fox, 1899. Amer. Ent. Soc. Trans. 25: 287.
Type: ***Morsyma Ashmeadii*** Fox. Monob. and orig. desig.

ashmeadii Fox. Calif.
Morsyma Ashmeadii Fox, 1899. Amer. Ent. Soc. Trans. 25: 287. "♀"=♂.
Taxonomy: Krombein, 1940. Amer. Ent. Soc. Trans. 65: 420.

Genus PSEUDOMETHOCA Ashmead

Pseudomethoca Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 181.
Type: (***Photopsis Cressoni*** Fox)=[***Mutilla***] ***frigida*** (Smith). Monob. and orig. desig.
Nomiaephagus Ashmead, 1899. N. Y. Ent. Soc. Jour. 7: 56.
Type: ***Mutilla (Sphaeropthalma) Sanbornii*** Blake. Monob. and orig. desig.
Sphinctomutilla André, 1909. Buenos Aires Mus. Nac. de Hist. Nat. An. (3) 10: 178. Preocc.
Type: ***Mutilla melanocephala*** Perty. Orig. desig.
Sphinctopsis Mickel, 1928. U. S. Natl. Mus. Bul. 143: 37. N. name.
Type: ***Mutilla melanocephala*** Perty. Automatic desig.
Revisions: Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 1–51, pls. 1–4.—Mickel, 1935. Amer. Ent. Soc. Trans. 61: 383–398.

aeetis (Fox). ?Conn., N. C. south to Fla., west to Tex. in L. Austr. Zone.
Mutilla aeetis Fox, 1899. Amer. Ent. Soc. Trans. 25: 228. ♀.
Pseudomethoca (Nomiaephagus) aetis (!) Bradley, 1916. Amer. Ent. Soc. Trans. 42: 312, 316. ♀.

albicoma Mickel. Tex. (Rio Grande in Brewster Co.).
Pseudomethoca albicoma Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 29. ♂.

anthracina (Fox). Calif.
Sphaerophthalma (!) *anthracina* Fox, 1892. Ent. News 3: 172. ♂.
Mutilla anthracicolor Dalla Torre, 1897. Cat. Hym., v. 8, p. 9. N. name for *Sphaerophthalma* (!) *anthracina* Fox, not *Mutilla anthracina* Gerstaecker.

aprica (Melander). Okla., Tex.
Mutilla aprica Melander, 1903. Amer. Ent. Soc. Trans. 29: 322. ♀.

athamas (Fox). Oreg., Calif.
Mutilla athamas Fox, 1899. Amer. Ent. Soc. Trans. 25: 225. ♂.

aureovestita Bradley. N. Mex., Ariz.
Pseudomethoca aureovestita Bradley, 1924. *In* Mickel, U. S. Natl. Mus. Proc. 64 (15): 22. ♀ ♂.

bequaerti Mickel. Tex., N. Mex., Ariz., Colo., Mont.
Pseudomethoca bequaerti Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 13. ♀.

brazoria (Blake). Okla., Tex.
Mutilla (Sphaeropthalma) brazoria Blake, 1871. Amer. Ent. Soc. Trans. 3: 255. ♀.

carbonaria Mickel. Tex.
Pseudomethoca carbonaria Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 43. ♂.

cephalargia Mickel. Ariz. (Santa Catalina Mts.).
Pseudomethoca cephalargia Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 17. ♀.

connectens (Cresson). Calif.
Mutilla connectens Cresson, 1865. Ent. Soc. Phila. Proc. 4: 387. ♀.

contumax (Cresson). Iowa, S. Dak., Nebr., Kans., Tex., Colo., Ariz.
Mutilla contumax Cresson, 1865. Ent. Soc. Phila. Proc. 4: 437. ♀.

contumeliosa Mickel. Utah, Idaho, Calif.
Pseudomethoca contumeliosa Mickel, 1935. Amer. Ent. Soc. Trans. 61: 393. ♀.

dentifrontalis Bradley. Oreg., Calif.
Pseudomethoca dentifrontalis Bradley, 1924. *In* Mickel, U. S. Natl. Mus. Proc. 64 (15): 11. ♀.

dentigula Mickel. Tex. (Trans-Pecos).
Pesudomethoca dentigula Mickel, 1935. Amer. Ent. Soc. Trans. 61: 391. ♀.

donae-anae (Cockerell and Fox). Tex., N. Mex., Ariz., Calif.
Sphaerophthalma (!) *donae-anae* Cockerell and Fox, 1897. Acad. Nat. Sci. Phila. Proc., p. 127. ♀.

flammigera Mickel. Ariz.
Pseudomethoca flammigera Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 21. ♀.

flavida (Blake). Tex.
Mutilla (Sphaeropthalma) flavida Blake, 1871. Amer. Ent. Soc. Trans. 3: 249. ♂.

frigida (Smith). Canada and U. S. east of Rocky Mts. Hosts: *Ancistrocerus birenimaculatus* (Sauss.); ? *Halictus* (*Chloralictus*) *pruinosus* (Robt.); ? *H.* (*C.*) *zephyrus* Smith.
Mutilla frigida Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 60. ♀.
Mutilla (Sphaeropthalma) canadensis Blake, 1871. Amer. Ent. Soc. Trans. 3: 252. ♀.

Photopsis Cressoni Fox, 1890. Ent. News 1: 138. ♂.
Sphaerophthalma (!) ***alveolata*** Provancher, 1895. Nat. Canad. 22: 110. ♀.
Mutilla neojerseiensis Dalla Torre, 1897. Cat. Hym., v. 8, p. 65. N. name for *Phytopsis* (!) *Cressoni* Fox, not *Mutilla Cressoni* Blake.
Biology: Melander and Brues, 1903. Biol. Bul. 5: 4–7, fig. 4.—Krombein, 1938. Brooklyn Ent. Soc. Bul. 33: 14–15.—Fattig, 1943. Emory Univ. Mus. Bul. 1: 4.

gila (Blake). Tex. (Brownsville).
Mutilla (Sphaeropthalma) Gila Blake, 1871. Amer. Ent. Soc. Trans. 3: 250. ♂.

harpalyce (Fox). Oreg., Calif.
Mutilla harpalyce Fox, 1899. Amer. Ent. Soc. Trans. 25: 227. ♀.

klotsi Mickel. Colo. (Hugo).
Pseudomethoca klotsi Mickel, 1935. Amer. Ent. Soc. Trans. 61: 389. ♀.

manca Mickel. Utah.
Pseudomethoca manca Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 45. ♂.

meritoria Mickel. Tex.
Pseudomethoca meritoria Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 27. ♀.

mulaiki Mickel. Tex. (Cameron Co.).
Pseudomethoca mulaiki Mickel, 1938. Ent. Soc. Amer. Ann. 31: 150. ♀.

nephele (Fox). Tex.
Mutilla nephele Fox, 1899. Amer. Ent. Soc. Trans. 25: 223. ♀.

nigricula Mickel. Ariz.
Pseudomethoca nigricula Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 26. ♂.

nudula Mickel. N. Mex. (Pecos). Host: Possibly *Calliopsis* sp.
Pseudomethoca nudula Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 15. ♀.

occola (Blake). N. J. south to Fla., west to S. Dak. and Ariz.
Mutilla (Sphaeropthalma) Occola Blake, 1871. Amer. Ent. Soc. Trans. 3: 248. ♂.
Mutilla hippodamia Fox, 1899. Amer. Ent. Soc. Trans. 25: 227. ♀.

oculata (Banks). N. C., Ga., Fla.
Nomiaephagus oculatus Banks, 1921. Ent. Soc. Amer. Ann. 14: 24. ♀.

oculissima Mickel. N. Mex. (Pecos).
Pseudomethoca oculissima Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 14. ♀.

paludata Mickel. Nebr., Kans., Wyo., Colo., N. Mex., Ariz.
Pseudomethoca paludata Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 29. ♀.
Pseudomethoca scrupulosa Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 31. ♂.

pigmentata Mickel. Tex.
Pseudomethoca pigmentata Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 24. ♀.

praeclara (Blake). Ariz., Calif.
Sphaerophthalma (!) ***praeclara*** Blake, 1886. Amer. Ent. Soc. Trans. 13: 252. ♀.
Mutilla aegaeon Fox, 1899. Amer. Ent. Soc. Trans. 25: 229. ♂.
Nomiaephagus acuum Cockerell, 1915. Entomologist 48: 250. ♀.
Pseudomethoca (Nomiaephagus) aegeon (!) Bradley, 1916. Amer. Ent. Soc. Trans. 42: 321. ♂.

propinqua (Cresson). Minn. south to Tex., west to Alta. and Ariz.
Mutilla propinqua Cresson, 1865. Ent. Soc. Phila. Proc. 4: 433. ♂.
Mutilla montivaga Cresson, 1865. Ent. Soc. Phila. Proc. 4: 436. ♀.
Pseudomethoca sacatona Caldwell, 1939. Pan-Pacific Ent. 15: 94. ♀. N. syn. (Mickel).

quadrinotata Mickel. Ariz. (Tucson).
Pseudomethoca quadrinotata Mickel, 1938. Ent. Soc. Amer. Ann. 31: 149. ♀.

russeola Mickel. Tex. (San Diego).
Pseudomethoca russeola Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 44. ♂.

sanbornii (Blake). Mass. south to Fla., west to Nebr. and Tex. Host: *Nomia pattoni* Cockerell.
Mutilla (*Sphaeropthalma*) *Sanbornii* Blake, 1871. Amer. Ent. Soc. Trans. 3: 248. ♂.
Biology: Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 38.

scaevolella (Cockerell and Casad). Tex., N. Mex.
Sphaerophthalma (!) *scaevolella* Cockerell and Casad, 1895. Amer. Ent. Soc. Trans. 22: 298. ♀.

simillima (Smith). Mass. south to Fla., west to Nebr. and Tex.
Mutilla simillima Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 62. ♀.
Mutilla geryon Fox, 1899. Amer. Ent. Soc. Trans. 25: 255. ♂.
Mutilla Henshawi Melander, 1903. Amer. Ent. Soc. Trans. 29: 303. ♂.
Mutilla daeckei Rohwer, 1910. Ent. Soc. Wash. Proc. 12: 49. ♂.
Pseudomethoca simillima Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 32. ♀ (♂ misdet.).
Taxonomy: Krombein, 1948. Ent. News 59: 187–189.

toumeyi (Fox). Tex., Ariz.
Sphaerophthalma (!) *toumeyi* Fox, 1894. Ent. News 5: 297. ♀.

vanduzeei Bradley, emend. Va., S. C., Ga., Fla., Tex. Host: *Nomia maneei* Ckll.
Pseudomethoca (*Nomiaephagus*) *vanduzei* (!) Bradley, 1916. Amer. Ent. Soc. Trans. 42: 321. ♂.
Pseudomethoca fattigi Mickel, 1938. Ent. Soc. Amer. Ann. 31: 147. ♀. N. syn.
Biology: Fattig, 1943. Emory Univ. Mus. Bul. 1: 6.

wickhami (Cockerell and Casad). Tex. (Fedor).
Sphaerophthalma (!) *wickhami* Cockerell and Casad, 1895. Amer. Ent. Soc. Trans. 22: 297. ♀.

Genus MYRMILLOIDES André

Myrmilloides André, 1903. *In* Wytsman, Gen. Ins. 1, fasc. 11: 26.
Type: *Mutilla* (*Sphaeropthalma*) *grandiceps* Blake. Monob. and orig. desig.
Revision: Mickel, 1924. U. S. Natl. Mus. Proc. 64 (15): 4–5.

grandiceps (Blake). Iowa, Nebr., Colo., Kans., Okla., Tex., La. Host: ? *Halictus* (*Chloralictus*) *pruinosus* (Robt.).
Mutilla (*Sphaeropthalma*) *grandiceps* Blake, 1872. Amer. Ent. Soc. Trans. 4: 74. ♀ ♂.
Biology: Melander, 1903. Amer. Ent. Soc. Trans. 29: 293.

Genus DASYMUTILLA Ashmead

Dasymutilla Ashmead, 1899. N. Y. Ent. Soc. Jour. 7: 57.
Type: *Mutilla* (*Sphaeropthalma*) *Gorgon* Blake. Monob. and orig. desig.
Bruesia Ashmead, 1903. Canad. Ent. 35: 306.
Type: *Mutilla harmonia* Fox. Monob. and orig. desig.
Pycnomutilla Ashmead, 1904. Canad. Ent. 36: 8.
Type: *Mutilla* (*Sphaeropthalma*) *Waco* Blake. Monob. and orig. desig.
Revisions: Mickel, 1928. U. S. Natl. Mus. Bul. 143: 1–351, 5 pls., 28 text figs.—Mickel, 1936. Ent. Soc. Amer. Ann. 29: 29–60, 3 figs. (revised key to spp.).

alesia Banks. Mass. south to Ga., west to Ill. and Okla.
Dasymutilla alesia Banks, 1921. Ent. Soc. Amer. Ann. 14: 24. ♀.

angulata Krombein, n. name. Mich., Ill., Iowa, Mo., S. Dak., Nebr., Kans.
Mutilla anguliceps Fox, 1899. Amer. Ent. Soc. Trans. 25: 240. ♀. Preocc. by André, 1897.

apicalata (Blake). Tex.
Mutilla (Sphaeropthalma) apicalata Blake, 1871. Amer. Ent. Soc. Trans. 3: 238. ♂.

arcana Mickel. Nebr., Okla., Tex., N. Mex., Colo.
Dasymutilla arcana Mickel, 1928. U. S. Natl. Mus. Bul. 143: 217. ♂.

arenivaga Mickel. Ariz., Calif.
Dasymutilla arenivaga Mickel, 1928. U. S. Natl. Mus. Bul. 143: 278. ♀.

arenivaga var. **unicolor** Mickel. Ariz. (Ft. Mojave).
Dasymutilla arenivaga var. ***unicolor*** Mickel, 1936. Ent. Soc. Amer. Ann. 29: 59. ♀.

asopus asopus (Cresson), n. status. Man., Minn., N. Dak., Mont., S. Dak., Nebr., Kans., Colo., Tex. ?Host: *Dianthidium* sp.
Mutilla Asopus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 435. ♂.
Ephuta sparsiformis Cockerell and Rohwer, 1908. Psyche 15: 4. ♀. N. syn.
Biology: Hicks, 1926. Colo. Univ., Studies, p. 249.—Mickel, 1928. U. S. Natl. Mus. Bul. 143: 61.

asopus bexar (Blake), n. status. Mass. south to Fla., Miss., Tex., Mo., Ind. Hosts: *Anthophora abrupta* Say; *A. ursina* Cr.
Mutilla (Sphaeropthalma) Bexar Blake, 1871. Amer. Ent. Soc. Trans. 3: 238. ♂.
Mutilla harmonia Fox, 1899. Amer. Ent. Soc. Trans. 25: 229. ♀.
Biology: Fattig, 1943. Emory Univ. Mus. Bul. 1: 4–5.

asopus cassandra Mickel, n. status. Fla.
Dasymutilla cassandra Mickel, 1928. U. S. Natl. Mus. Bul. 143: 64. ♂.

asteria Mickel. Ariz. (Pima Co.).
Dasymutilla asteria Mickel, 1936. Ent. Soc. Amer. Ann. 29: 57. ♀.

atricauda Mickel. Calif. (Blythe).
Dasymutilla atricauda Mickel, 1936. Pan-Pacific Ent. 12: 92. ♀.

atrifimbriata Mickel. Kans., Ark., Okla., Tex., Ariz.
Dasymutilla atrifimbriata Mickel, 1928. U. S. Natl. Mus. Bul. 143: 169. ♀.

atrifulva Mickel. Ariz.
Dasymutilla atrifulva Mickel, 1928. U. S. Natl. Mus. Bul. 143: 290. ♂.

aureola (Cresson). Nev., Oreg., Calif.
Mutilla aureola Cresson, 1865. Ent. Soc. Phila. Proc. 4: 386. ♀.
Sphaerophthalma (!) ***parmosa*** Blake, 1886. Amer. Ent. Soc. Trans. 13: 210. ♀.
Sphaerophthalma (!) ***mollissima*** Blake, 1886. Amer. Ent. Soc. Trans. 13: 215. ♂.

aureola var. **pacifica** (Cresson). B. C., Calif.
Mutilla pacifica Cresson, 1875. Amer. Ent. Soc. Trans. 5: 120. ♀.

beameri Mickel. Fla. (Wildwood).
Dasymutilla beameri Mickel, 1936. Ent. Soc. Amer. Ann. 29: 48. ♀.

biguttata (Cockerell). Miss., La., Tex., Kans., Ariz.
Sphaerophthalma (!) ***quadriguttata*** var. ***biguttata*** Cockerell, 1895. Ent. News 6: 63. ♀.

bioculata (Cresson). Man. south to La., west to B. C. and N. Mex. Hosts: *Epibembex pruinosa* (Fox); *Microbembex monodonta* (Say).
Mutilla bioculata Cresson, 1865. Ent. Soc. Phila. Proc. 4: 431. ♂.
Mutilla Aegina Cresson, 1865. Ent. Soc. Phila. Proc. 4: 435. ♀.
Mutilla chlamydata Melander, 1903. Amer. Ent. Soc. Trans. 29: 299. ♀.
Biology: Mickel, 1924. Ent. News 35: 236–242.

birkmani (Melander). Nebr., Wyo., Kans., Okla., Tex.
Mutilla Birkmani Melander, 1903. Amer. Ent. Soc. Trans. 29: 313. ♀.

bollii (Fox). Miss., La., Tex., Okla., Kans.
Mutilla Bollii Fox, 1899. Amer. Ent. Soc. Trans. 25: 242. ♀.
Dasymutilla blawana Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 461. ♀.

bonita Mickel. Ariz. (Bonita).
Dasymutilla bonita Mickel, 1928. U. S. Natl. Mus. Bul. 143: 208. ♀.

californica (Radoszkowski). B. C., Oreg., Utah, Calif.
Mutilla Californica Radoszkowski, 1861. Soc. Ent. Rossica Horae 1: 86. ♀.
Dasymutilla abdita Mickel, 1928. U. S. Natl. Mus. Bul. 143: 293. N. syn. (Mickel).

californica var. **clio** (Blake). Idaho, B. C.
Mutilla Clio Blake, 1879. Amer. Ent. Soc. Trans. 7: 251. ♀.

calorata Mickel. Kans., Okla., Tex., N. Mex., Colo.
Dasymutilla calorata Mickel, 1928. U. S. Natl. Mus. Bul. 143: 227. ♀.

campanula Mickel. Kans., Colo.
Dasymutilla campanula Mickel, 1928. U. S. Natl. Mus. Bul. 143: 178. ♀.

candida Mickel. Ariz. (Douglas).
Dasymutilla candida Mickel, 1928. U. S. Natl. Mus. Bul. 143: 296. ♂.

canella (Blake). Mass. to Pa., west to Man. and Tex. Host: ? *Halictus* (*Chloralictus*) *pruinosus* (Robt.).
Mutilla (*Sphaeropthalma*) *canella* Blake, 1871. Amer. Ent. Soc. Trans. 3: 239. ♂.
Mutilla rugulosa Fox, 1899. Amer. Ent. Soc. Trans. 25: 240. ♀. N. syn.
Mutilla infensa Melander and Brues, 1903. Biol. Bul. 5: 24. ♀. N. syn.
Biology: Viereck, 1902. Ent. News 13: 72.—Melander and Brues, 1903. Biol. Bul. 5: 7, 25.

caneo (Blake). Minn., N. Dak., south to Tex. and N. Mex., west to Alta. and B. C.
Mutilla caneo Blake, 1879. Amer. Ent. Soc. Trans. 7: 250. ♀.
Mutilla mixtura Blake, 1879. Amer. Ent. Soc. Trans. 7: 251. ♀.
Mutilla myrrha Fox, 1899. Amer. Ent. Soc. Trans. 25: 258. ♀.

castor (Blake). S. C., Ga., Fla., Ala., Miss., La., Tex. Host: *Polistes fuscatus* (F.).
Mutilla (*Sphaeropthalma*) *castor* Blake, 1871. Amer. Ent. Soc. Trans. 3: 237. ♂.
Dasymutilla mediatoria Mickel, 1938. Ent. Soc. Amer. Ann. 31: 152. ♀. N. syn.
Biology: Fattig, 1943. Emory Univ. Mus. Bul. 1: 6.

chattahoochei Bradley. N. C. south to Fla.
Dasymutilla (*Dasymutilla*) *chattahoochei* Bradley, 1916. Amer. Ent. Soc. Trans. 42: 324. ♀.
Dasymutilla (*Dasymutilla*) *arenerronea* Bradley, 1916. Amer. Ent. Soc. Trans. 42: 324. ♀.

chisos Mickel. Tex.
Dasymutilla chisos Mickel, 1928. U. S. Natl. Mus. Bul. 143: 284. ♂.

chrysocoma Mickel. Ariz.
Dasymutilla chrysocoma Mickel, 1928. U. S. Natl. Mus. Bul. 143: 266. ♀.

clotho (Blake). Okla., Tex.
Mutilla (*Sphaeropthalma*) *Clotho* Blake, 1872. Amer. Ent. Soc. Trans. 4: 72. ♀.

clytemnestra (Fox). Oreg., Calif.
Mutilla clytemnestra Fox, 1899. Amer. Ent. Soc. Trans. 25: 246. ♀.

coccineohirta (Blake). Idaho, Nev., Calif., Oreg., Wash.
Mutilla (*Sphaeropthalma*) *coccineohirta* Blake, 1871 Amer. Ent. Soc. Trans. 3: 235. ♂.
Mutilla ochracea Blake, 1879. Amer. Ent. Soc. Trans. 7: 247. ♂.
Sphaerophthalma (!) *venifica* Blake, 1886. Amer. Ent. Soc. Trans. 13: 210. ♀.
Mutilla progne Fox, 1899. Amer. Ent. Soc. Trans. 25: 247. ♀.
Dasymutilla aletina Cockerell, 1915. Entomologist 48: 249. ♂.

columbiana Mickel. B. C. (Nicola).
Dasymutilla columbiana Mickel, 1928. U. S. Natl. Mus. Bul. 143: 119. ♂.

corcyra Mickel. Tex.
Dasymutilla corcyra Mickel, 1928. U. S. Natl. Mus. Bul. 143: 180. ♀.

cotulla Mickel. Tex.
Dasymutilla cotulla Mickel, 1928. U. S. Natl. Mus. Bul. 143: 75. ♂.

creon (Blake). Tex.
Mutilla (*Sphaeropthalma*) *Creon* Blake, 1872. Amer. Ent. Soc. Trans. 4: 73. ♂.

creusa (Cresson). Ark., Tex., Okla., Kans., Nebr., Colo., N. Mex.
Mutilla Creusa Cresson, 1865. Ent. Soc. Phila. Proc. 4: 431. ♀.

creusa var. **bellona** (Cresson). Ark., Kans., Nebr., Wyo., Colo.
Mutilla Bellona Cresson, 1865. Ent. Soc. Phila. Proc. 4: 434. ♀.

curialis Mickel. N. Mex. (Jemez Springs).
Dasymutilla curialis Mickel, 1928. U. S. Natl. Mus. Bul. 143: 274. ♂.

curticeps Mickel. Kans., Tex.
Dasymutilla curticeps Mickel, 1928. U. S. Natl. Mus. Bul. 143: 173. ♀.

cypris (Blake). N. J., W. Va., Ga., Fla., Miss., Mo., Minn. Host: *Epibembex cinerea* (Handl.).
Mutilla (*Sphaeropthalma*) *Cypris* Blake, 1871. Amer. Ent. Soc. Trans. 3: 246. ♀.
Dasymutilla mutata miamensis Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 462. ♀.
Dasymutilla (*Dasymutilla*) *rubicunda* Bradley, 1916. Amer. Ent. Soc. Trans. 42: 325. ♀.
Dasymutilla hora Mickel, 1928. U. S. Natl. Mus. Bul. 143: 196. ♂. N. syn
Biology: Fattig, 1943. Emory Univ. Mus. Bul. 1: 4, 7.

dammersi Mickel. Calif. (Palm Springs).
Dasymutilla dammersi Mickel, 1936. Pan-Pacific Ent. 12: 94. ♀.

dawsoni Mickel. Nebr. (Halsey).
Dasymutilla dawsoni Mickel, 1936. Ent. Soc. Amer. Ann. 29: 40. ♀.

digressa Mickel. N. Mex. (Pecos).
Dasymutilla digressa Mickel, 1928. U. S. Natl. Mus. Bul. 143: 273. ♂.

dilucida Mickel. Ariz.
Dasymutilla dilucida Mickel, 1928. U. S. Natl. Mus. Bul. 143: 267. ♀.

dionysia Mickel. Ariz.
Dasymutilla dionysia Mickel, 1928. U. S. Natl. Mus. Bul. 143: 104. ♀.

dorippa Mickel. Nev. (Ormsby Co.).
Dasymutilla dorippa Mickel, 1928. U. S. Natl. Mus. Bul. 143: 297. ♂.

dugesii (Cockerell and Casad). Kans., Colo., Tex., Ariz.
Sphaerophthalma (!) *dugesii* Cockerell and Casad. 1894. Ent. News 5: 294. ♀.
Ephuta (*Ephuta*) *Dugési* (!) André, 1903. *In* Wytsman, Gen. Ins. 1, fasc. 11: 59.

electra (Blake). Tex., Okla.
Mutilla Electra Blake, 1872. Amer. Ent. Soc. Trans. 4: 75. ♀.

eminentia Mickel. Ariz., Calif.
Dasymutilla eminentia Mickel, 1928. U. S. Natl. Mus. Bul. 143: 79. ♂.

errabunda Mickel. Ariz.
Dasymutilla errabunda Mickel, 1928. U. S. Natl. Mus. Bul. 143: 269. ♂.

eurynome Mickel. Tex. (Valentine in Presidio Co.).
Dasymutilla eurynome Mickel, 1928. U. S. Natl. Mus. Bul. 143: 209. ♀.

fasciventris Mickel. Ariz. (Globe).
Dasymutilla fasciventris Mickel, 1938. Ent. Soc. Amer. Ann. 31: 155. ♂.

flammifera Mickel. Idaho, Oreg., Calif., Ariz.
Dasymutilla flammifera Mickel, 1928. U. S. Natl. Mus. Bul. 143: 240. ♀.

foxi (Cockerell). N. Mex., Ariz. Host: *Diadasia* sp.
Sphaerophthalma (!) *foxi* Cockerell, 1894. Ent. News 5: 199. ♂.

Sphaerophthalma (!) *heterochroa* Cockerell and Casad, 1894. Ent. News 5: 298. ♀.
Sphaerophthalma (!) *foxi* var. *arizonica* Cockerell, 1900. Entomologist 33: 65. ♀.
Biology: Mickel, 1928. U. S. Natl. Mus. Bul. 143: 85.

fulgida Mickel. Ariz.
Dasymutilla fulgida Mickel, 1928. U. S. Natl. Mus. Bul. 143: 76. ♀.

fulvohirta (Cresson). N. Dak. south to Tex., west to Alta. and Calif. Host: *Anthophora occidentalis* Cr.
Mutilla fulvohirta Cresson, 1865. Ent. Soc. Phila. Proc. 4: 433. ♂.
Sphaerophthalma (!) *townsendi* Cockerell, 1894. Ent. News 5: 199. ♂.
Mutilla townsendii (!) Dalla Torre, 1897. Cat. Hym., v. 8, p. 92.
Ephuta californica var. *euchroa* Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 20: 513. ♀.
Taxonomy: Mann, 1915. Psyche 22: 178, fig. 1 (gynandromorph).
Biology: Mickel, 1928. U. S. Natl. Mus. Bul. 143: 72.

furina Mickel. Ariz. (Douglas).
Dasymutilla furina Mickel, 1928. U. S. Natl. Mus. Bul. 143: 82. ♀.

gentilis Mickel. Kans., Tex., Rocky Mts.
Dasymutilla gentilis Mickel, 1928. U. S. Natl. Mus. Bul. 143: 199. ♂.

gibbosa (Say). N. H. south to Ga., west to Minn. and Mo.
Mutilla (Ephuta) gibbosa Say, 1836. Boston Jour. Nat. Hist. 1: 298. ♂.
Mutilla cariniceps Fox, 1899. Amer. Ent. Soc. Trans. 25: 241. ♀. N. syn.
Dasymutilla scrobinata Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 462. ♀. N. syn.
Dasymutilla carniceps (!) Fattig, 1943. Emory Univ. Mus. Bul. 1: 9, 16. ♀.

gloriosa (Saussure). Tex., Utah, Nev., Ariz., Calif.
Mutilla gloriosa Saussure, 1867. Soc. Ent. France Ann. (4) 7: 359. ♀.
Mutilla tecta Cresson, 1875. Amer. Ent. Soc. Trans. 5: 119. ♀.
Dasymutilla reperticia Mickel, 1928. U. S. Natl. Mus. Bul. 143: 287. ♂.
Taxonomy: Mickel, 1936. Ent. Soc. Amer. Ann. 29: 56.

glycera Mickel. Ariz. (Florence).
Dasymutilla glycera Mickel, 1928. U. S. Natl. Mus. Bul. 143: 299. ♂.

gorgon (Blake). La., Okla., Tex., N. Mex.
Mutilla (Sphaeropthalma) Gorgon Blake, 1871. Amer. Ent. Soc. Trans. 3: 233. ♀.
Mutilla Tisiphone Blake, 1879. Amer. Ent. Soc. Trans. 7: 249. ♀.
Dasymutilla gorgons (!) Ashmead, 1899. N. Y. Ent. Soc. Jour. 7: 57, 60. ♀ ♂.

hector (Blake). Iowa, Nebr., Kans., Colo.
Mutilla (Sphaeropthalma) Hector Blake, 1871. Amer. Ent. Soc. Trans. 3: 237. ♂.

heliophila (Cockerell). Ariz., Calif.
Sphaerophthalma (!) *heliophila* Cockerell, 1900. Entomologist 33: 65. ♀.
Dasymutilla welltonensis Bradley and Bequaert, 1923. Amer. Mus. Novitates 82: 1. ♀.

helva Mickel. Ariz.
Dasymutilla helva Mickel, 1928. U. S. Natl. Mus. Bul. 143: 259. ♀.

hersilia Mickel. Tex. (Bexar Co.).
Dasymutilla hersilia Mickel, 1936. Ent. Soc. Amer. Ann. 29: 51. ♂.

hispidaria Mickel. Tex. (Hondo).
Dasymutilla hispidaria Mickel, 1936. Ent. Soc. Amer. Ann. 29: 55. ♀.

homole Mickel. N. Mex. (Organ Mts.).
Dasymutilla homole Mickel, 1928. U. S. Natl. Mus. Bul. 143: 72. ♀.

intermixta Mickel. N. Mex., Ariz.
Dasymutilla intermixta Mickel, 1928. U. S. Natl. Mus. Bul. 143: 256. ♂.

interrupta Banks. Mass. south to Ga., west to N. Dak. and Colo.
Dasymutilla cypris var. *interrupta* Banks, 1921. Ent. Soc. Amer. Ann. 14: 24. ♀.

Biology: Swezey, 1915. Hawaii. Ent. Soc. Proc. 3: 71–72 (misdet. as *ferrugata* Fabricius).

klugii (Gray). Kans. south to Tex., west to Utah and Ariz.
Mutilla Klugii Gray, 1872. *In* Griffith, Cuvier's Animal Kingdom 15 (Insecta 2), p. 516. ♀.
Mutilla Orcus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 428. ♀ ♂.
[*Mutilla*] *Klugi* (!) André, 1903. *In* Wytsman, Gen. Ins. 1, fasc. 11, p. 73. ♀.

klugioides Mickel. Okla., Tex.
Dasymutilla klugioides Mickel, 1936. Ent. Soc. Amer. Ann. 29: 54. ♀.

leda (Blake). S. Dak. south to Tex., Colo.
Mutilla (*Sphaeropthalma*) *Leda* Blake, 1872. Amer. Ent. Soc. Trans. 4: 72. ♀.
Mutilla prognoides Viereck, 1906. Amer. Ent. Soc. Trans. 32: 186. ♀.

lepeletierii (Fox). Mass. south to Fla., west to Iowa and Tex.
Mutilla fenestrata Lepeletier, 1845. Hist. Nat. Ins. Hym., v. 3, p. 627. ♂. Preocc.
Mutilla Lepeletierii Fox, 1899. Amer. Ent. Soc. Trans. 25: 244. N. name.
Mutilla vierecki Rohwer, 1910. Ent. Soc. Wash. Proc. 12: 49. ♀.
Dasymutilla ferrugata var. *balabetei* Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 456. ♀.
Dasymutilla georgiana Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 456. ♀.
Dasymutilla plesia Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 456. ♀.
Dasymutilla (*Dasymutilla*) *ferrugata* var. *ballabetei* (!) Bradley, 1916. Amer. Ent. Soc. Trans. 42: 327. ♀.
Biology: Shappirio, 1948. Brooklyn Ent. Soc. Bul. 42: 163.

macilenta (Blake). Ga., Fla., Ala., Tex.
Mutilla (*Sphaeropthalma*) *macilenta* Blake, 1871. Amer. Ent. Soc. Trans. 3: 239. ♂.

macra (Cresson). N. Dak. south to Ark., west to Alta. and N. Mex.
Mutilla macra Cresson, 1865. Ent. Soc. Phila. Proc. 4: 429. ♂.
Sphaeropthalma (!) *hispida* Blake, 1886. Amer. Ent. Soc. Trans. 13: 226. ♂.

magna (Cresson). Ariz., Calif.
Mutilla magna Cresson, 1865. Ent. Soc. Phila. Proc. 4: 385. ♀.

magnifica Mickel. N. Mex., Ariz., Nev., Calif.
Dasymutilla magnifica Mickel, 1928. U. S. Natl. Mus. Bul. 143: 234. ♀ ♂.

medea (Cresson). Colo., N. Mex.
Mutilla Medea Cresson, 1865. Ent. Soc. Phila. Proc. 4: 432. ♀.
Biology: Melander, 1903. Amer. Ent. Soc. Trans. 29: 297.

megalophthalma Mickel. Ariz., Calif.
Dasymutilla megalophthalma Mickel, 1928. U. S. Natl. Mus. Bul. 143: 282. ♂.

melanippe Mickel. Tex.
Dasymutilla melanippe Mickel, 1928. U. S. Natl. Mus. Bul. 143: 152. ♀.
Dasymutilla lauta Mickel, 1928. U. S. Natl. Mus. Bul. 143: 154. ♀.
Taxonomy: Mickel, 1936. Ent. Soc. Amer. Ann. 29: 46.

melanippe var. **conformis** Mickel. Tex.
Dasymutilla melanippe var. *conformis* Mickel, 1928. U. S. Natl. Mus. Bul. 143: 153. ♀.

meracula Mickel. Kans., Okla., Tex.
Dasymutilla meracula Mickel, 1928. U. S. Natl. Mus. Bul. 143: 201. ♂.

monticola (Cresson). Minn. south to Kans., west to B. C. and Ariz.
Mutilla monticola Cresson, 1865. Ent. Soc. Phila. Proc. 4: 430. ♂.
Mutilla eximia Blake, 1886. Amer. Ent. Soc. Trans. 13: 200. ♂.
Ephuta boulderensis Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 133. ♂.

montivagoides (Viereck). Kans. (Hamilton Co.).
Mutilla (*Timulla*) *montivagoides* Viereck, 1906. Amer. Ent. Soc. Trans. 32: 185. ♀.

mutata (Blake). N. Y. south to Fla., west to Mo. and Tex. Host: *Myzinum obscurum* (F.).
Mutilla (*Sphaeropthalma*) ***mutata*** Blake, 1871. Amer. Ent. Soc. Trans. 3: 247. ♀.
Dasymutilla allardi Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 463. ♀.
Dasymutilla rubricosa Mickel, 1928. U. S. Natl. Mus. Bul. 143: 192. ♂. N. syn.
Taxonomy: Mickel, 1938. Ent. Soc. Amer. Ann. 31: 152. ♀.
Biology: Fattig, 1943. Emory Univ. Mus. Bul. 1: 4, 7. ♀ ♂.

myrice Mickel. Nebr., Kans., Okla., Tex., Colo.
Dasymutilla myrice Mickel, 1928. U. S. Natl. Mus. Bul. 143: 121. ♂.

nigricauda (Viereck). Kans., Okla., Tex.
Mutilla (*Timulla*) ***nigricauda*** Viereck, 1906. Amer. Ent. Soc. Trans. 32: 187. ♀.

nigripes (Fabricius). Mass. to Fla., west to Alta. and Ariz. Host: ?*Philanthus gibbosus* (F.).
Mutilla nigripes Fabricius, 1787. Mantissa Insectorum, v. 1, p. 313. ♀.
Mutilla sparsa Fox, 1899. Amer. Ent. Soc. Trans. 25: 240. ♀. N. syn.
Dasymutilla blawa Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 457. ♀. N. syn.
Dasymutilla segregata Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 459. ♀.
Dasymutilla segregata finni Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 459. ♀. N. syn.
Dasymutilla bruneri Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 460. ♀. N. syn.
Dasymutilla champlaini Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 461. ♀.
Dasymutilla hirticula Mickel, 1923. Minn. State Ent. Rpt. 19: 107. ♂.
Taxonomy: Mickel, 1936. Ent. Soc. Amer. Ann. 29: 43–44.
Biology: Shappirio, 1948. Brooklyn Ent. Soc. Bul. 42: 163.—Shappirio, 1949. Brooklyn Ent. Soc. Bul. 43: 158.

nitidula Mickel. Kans., Okla., Tex.
Dasymutilla nitidula Mickel, 1928. U. S. Natl. Mus. Bul. 143: 174. ♀.

nitidula var. **nigridia** Mickel. Tex.
Dasymutilla nitidula var. ***nigridia*** Mickel, 1936. Ent. Soc. Amer. Ann. 29: 47. ♀.

nocturna Mickel. Calif.
Dasymutilla nocturna Mickel, 1928. U. S. Natl. Mus. Bul. 143: 279. ♀.

nogalensis Mickel. Ariz.
Dasymutilla nogalensis Mickel, 1928. U. S. Natl. Mus. Bul. 143: 258. ♀.

nupera Mickel. Tex., N. Mex.
Dasymutilla nupera Mickel, 1928. U. S. Natl. Mus. Bul. 143: 103. ♀.

occidentalis comanche (Blake), n. status. Iowa and S. Dak., south to Tex., Colo.
Mutilla (*Sphaeropthalma*) ***Comanche*** Blake, 1871. Amer. Ent. Soc. Trans. 3: 234. ♀ ♂.
Dasymutilla occidentalis var. ***comanche*** Mickel, 1928. U. S. Natl. Mus. Bul. 143: 225. ♀ ♂.

occidentalis occidentalis (Linnaeus), n. status. Conn. south to Fla., west to Mo. and Tex. Host: *Bombus fraternus* Smith.
Mutilla occidentalis Linnaeus, 1758. Syst. Nat., ed. 10, v. 1, p. 582. ♀.
Mutilla bifasciata Swederus, 1787. Svensk. Vetensk. Akad. Handl. 8: 285. ♀.
Mutilla coccinea Fabricius, 1793. Ent. System. 2: 366. ♀.
Biology: Fattig, 1943. Emory Univ. Mus. Bul. 1: 5.

ocydrome Mickel. Ariz.
Dasymutilla ocydrome Mickel, 1928. U. S. Natl. Mus. Bul. 143: 292. ♂.

paenulata Mickel. Ariz. (Phoenix).
Dasymutilla paenulata Mickel, 1928. U. S. Natl. Mus. Bul. 143: 206. ♀.

paranocturna Barr and Hurd. Calif.
Dasymutilla paranocturna Barr and Hurd, 1947. Pan-Pacific Ent. 23: 88. ♀.

parksi Mickel. Tex. (Bexar Co.).
Dasymutilla parksi Mickel, 1936. Ent. Soc. Amer. Ann. 29: 50. ♀.

perilla Mickel. Tex.
Dasymutilla perilla Mickel, 1928. U. S. Natl. Mus. Bul. 143: 300. ♂.

perilla var. **gentilicia** Mickel. Kans., Colo.
Dasymutilla perilla var. *gentilicia* Mickel, 1928. U. S. Natl. Mus. Bul. 143: 301. ♂.

phaon (Fox). Tex., N. Mex., Ariz., Utah.
Mutilla phaon Fox, 1899. Amer. Ent. Soc. Trans. 25: 243. ♂.

phaon var. **fimbrialis** Mickel. Utah, Ariz., Calif.
Dasymutilla phaon var. *fimbrialis* Mickel, 1928. U. S. Natl. Mus. Bul. 143: 302. ♂.

phoenix (Fox). Ariz., Calif.
Mutilla phoenix Fox, 1899. Amer. Ent. Soc. Trans. 25: 247. ♀.

polia Mickel. Ariz.
Dasymutilla polia Mickel, 1928. U. S. Natl. Mus. Bul. 143: 215. ♂.

poliothrix Mickel. Ariz. (Nogales).
Dasymutilla poliothrix Mickel, 1928. U. S. Natl. Mus. Bul. 143: 285. ♂.

praegrandis Mickel. Tex.
Dasymutilla praegrandis Mickel, 1928. U. S. Natl. Mus. Bul. 143: 148. ♀ ♂.

praegrandis var. **russata** Mickel. Tex.
Dasymutilla praegrandis var. *russata* Mickel, 1928. U. S. Natl. Mus. Bul. 143: 152. ♂.

pseudopappus (Cockerell). Colo., N. Mex., Ariz.
Sphaerophtha'ma (!) *gloriosa* var. *pseudopappus* Cockerell, 1895. Psyche 7 (sup.): 6. ♀.

pyrrhus (Fox). Ga., Fla.
Mutilla pyrrhus Fox, 1899. Amer. Ent. Soc. Trans. 25: 243. ♂.

quadriguttata (Say). Ill, Minn., and S. Dak. south to Miss. and Tex. Host: *Myzinum quinquecinctum* (F.).
Mutilla quadriguttata Say, 1823. West. Quart. Rptr. 2: 74. ♀.
Dasymutilla permista Mickel, 1923. Minn. State Ent. Rpt. 19: 108. ♂.
Biology: Swezey, 1915. Hawaii. Ent. Soc. Proc. 3: 72. (Misdet. as *castor* Blake.)—Hayes, 1924. Brooklyn Ent. Soc. Bul. 19: 153.—Remington, 1944. Ent. Soc. Amer. Ann. 37: 198–200.

reclusa Mickel. S. Dak. south to Tex.; Mont., Wyo.
Dasymutilla reclusa Mickel, 1928. U. S. Natl. Mus. Bul. 143: 219. ♂.

sackenii (Cresson). Oreg., Calif., Nev. Host: *Epibembex occidentalis beutenmülleri* (Fox).
Mutilla Sackenii Cresson, 1865. Ent. Soc. Phila. Proc. 4: 385. ♀.
Mutilla erudita Cresson, 1875. Amer. Ent. Soc. Trans. 5: 120. ♀.
Biology: Bohart and MacSwain, 1939. South. Calif. Acad. Sci. Bul. 38: 89, pl. 16, figs. 11–14.

saetigera Mickel. Ariz. (Baboquivaria Mts.).
Dasymutilla saetigera Mickel, 1928. U. S. Natl. Mus. Bul. 143: 211. ♀.

satanas Mickel. Ariz., Nev., Calif.
Dasymutilla satanas Mickel, 1928. U. S. Natl. Mus. Bul. 143: 239. ♀.
Dasymutilla mimula Mickel, 1928. U. S. Natl. Mus. Bul. 143: 255. ♂.
Taxonomy: Barr and Hurd, 1947. Pan-Pacific Ent. 23: 86. ♀ ♂.

scaevola (Blake). Mass. south to Ga., west to Mont. and Ariz. Host: ?*Cerceris clypeata* Dahlb.; ?*C. finitima* Cr.
Mutilla (Sphaeropthalma) obscura Blake, 1871. Amer. Ent. Soc. Trans. 3: 239. ♂. Preocc.
Mutilla (Sphaeropthalma) scaevola Blake, 1871. Amer. Ent. Soc. Trans. 3: 247. ♀.
Mutilla (Sphaeropthalma) admetus Blake, 1872. Amer. Ent. Soc. Trans. 4: 74. ♂.
Sphaerophthalma (!) *macer* (!) Blake, 1886. Amer. Ent. Soc. Trans. 13: 227. ♂.

Sphaerophthalma (!) ***macerata*** Blake, 1886. Amer. Ent. Soc. Trans. 13: 286.
Mutilla macera (!) Dalla Torre, 1897. Cat. Hym., v. 8, p. 56.
Mutilla (Dasymutilla) apachea Viereck, 1908. Amer. Ent. Soc. Trans. 33: 386. ♂.
Biology: Shappirio, 1948. Brooklyn Ent. Soc. Bul. 42: 162–163.—Shappirio, 1949. Brooklyn Ent. Soc. Bul. 43: 157–158.

scitula Mickel. Utah.
Dasymutilla scitula Mickel, 1928. U. S. Natl. Mus. Bul. 143: 244. ♀ ♂.

serenitas Mickel. Tex. (Cotulla, Eastland Co.).
Dasymutilla serenitas Mickel, 1928. U. S. Natl. Mus. Bul. 143: 289. ♂.

sicheliana (Saussure). Ariz.
Mutilla sicheliana Saussure, 1867. Soc. Ent. France Ann. (4) 7: 360. ♀.
Sphaerophthalma (!) ***prunotincta*** Cockerell, 1895. Ent. News 6: 60. ♀.

snoworum (Cockerell and Fox). Nebr. south to Tex., west to Mont. and Ariz.
Sphaerophthalma (!) ***snoworum*** Cockerell and Fox. 1897. Acad. Nat. Sci. Phila. Proc. p. 135. ♂.
Mutilla poecilonota Melander, 1903. Amer. Ent. Soc. Trans. 29: 301. ♀. N. syn.

sophrona Mickel. Ariz.
Dasymutilla sophrona Mickel, 1928. U. S. Natl. Mus. Bul. 143: 271. ♂.

stevensi Mickel. Iowa, N. Dak., south to Tex., Colo., Utah, N. Mex., Ariz.
Dasymutilla stevensi Mickel, 1928. U. S. Natl. Mus. Bul. 143: 99. ♀.
Dasymutilla medora Mickel, 1928. U. S. Natl. Mus. Bul. 143: 101. ♂.
Taxonomy: Mickel, 1936. Ent. Soc. Amer. Ann. 29: 44.

subhyalina Mickel. Calif. (Andrade).
Dasymutilla subhyalina Mickel, 1928. U. S. Natl. Mus. Bul. 143: 281. ♂.

sulcatulla Mickel. Tex. (Rio Grande in Brewster Co.).
Dasymutilla sulcatulla Mickel, 1928. U. S. Natl. Mus. Bul. 143: 155. ♀.

testaceiventris (Fox). Oreg., Calif.
Mutilla testaceiventris Fox, 1899. Amer. Ent. Soc. Trans. 25: 242. ♂.

texanella Mickel. Kans., Tex., Colo.
Mutilla texana Blake, 1879. Amer. Ent. Soc. Trans. 7: 250. ♀. Preocc.
Dasymutilla texanella Mickel, 1928. U. S. Natl. Mus. Bul. 143: 96. ♀. N. name.

thetis (Blake). Ariz.
Sphaerophthalma (!) ***thetis*** Blake, 1886. Amer. Ent. Soc. Trans. 13: 214. ♀.

ursula (Cresson). B. C. south to Ariz. and southeast to Tex.
Mutilla Ursula Cresson, 1875. Amer. Ent. Soc. Trans. 5: 120. ♂.

ursula var. **chiron** (Blake). Tex.
Mutilla (Sphaeropthalma) chiron Blake, 1872. Amer. Ent. Soc. Trans. 4: 72. ♂.
Mutilla Ursula var. ***texana*** Cresson, 1875. Amer. Ent. Soc. Trans. 5: 120. ♂.

vandala Mickel. Tex.
Dasymutilla vandala Mickel, 1928. U. S. Natl. Mus. Bul. 143: 74. ♂.

vesta errans Rohwer, n. status. S. Dak. south to Tex., Colo.
Dasymutilla errans Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 457. ♀.
Dasymutilla bosquensis Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 457. ♀.
Dasymutilla texensis Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 460. ♀.

vesta sappho (Fox), n. status. N. C. south to Fla., Miss.
Mutilla sappho Fox, 1899. Amer. Ent. Soc. Trans. 25: 239. ♀.

vesta vesta (Cresson), n. status. East of Rocky Mts. in Canada and U. S. Host: *Trypoxylon politum* Say.
Mutilla Vesta Cresson, 1865. Ent. Soc. Phila. Proc. 4: 436. ♀.
Scolia unicincta Provancher, 1882. Nat. Canad. 13: 6. ♂ (♀ misdet.).
Mutilla monozona Dalla Torre, 1897. Cat. Hym., v. 8, p. 64. N. name for *Scolia unicincta* Provancher, not *Mutilla unicincta* Lucas.

Mutilla agenor Fox, 1899. Amer. Ent. Soc. Trans. 25: 245. ♂.
Mutilla zella Rohwer, 1910. Ent. Soc. Wash. Proc. 12: 50. ♀.
Pycnomutilla harmoniiformis Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 455. ♂.
Dasymutilla ferrugatella Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 458. ♀.
Dasymutilla coloradella Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 458. ♀.
Dasymutilla coloradella virginica Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 459. ♀.
Dasymutilla coloradella kamloopsensis Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 459. ♀.
Dasymutilla mesillae Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 461. ♀.
Dasymutilla carolina Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 462. ♀.
Biology: Fattig, 1943. Emory Univ. Mus. Bul. 1: 4.

waco (Blake). Tex.
Mutilla (*Sphaeropthalma*) *Waco* Blake, 1871. Amer. Ent. Soc. Trans. 3: 238. ♀.

wileyae Mickel. Tex.
Dasymutilla wileyae Mickel, 1928. U. S. Natl. Mus. Bul. 143: 177. ♀.

zelaya (Blake). Okla., Tex., N. Mex., Ariz.
Mutilla (*Sphaeropthalma*) *Zelaya* Blake, 1871. Amer. Ent. Soc. Trans. 3: 234. ♂.

Genus LOMACHAETA Mickel

Lomachaeta Mickel, 1936. Ent. Soc. Amer. Ann. 29: 289.
Type: *Lomachaeta hicksi* Mickel. Orig. desig.
Revision: Mickel, 1940. Pan-Pacific Ent. 16: 127–131.

coloradensis Mickel. Colo. (Boulder Co.).
Lomachaeta coloradensis Mickel, 1936. Ent. Soc. Amer. Ann. 29: 292. ♂.

hicksi Mickel. Calif.
Lomachaeta hicksi Mickel, 1936. Ent. Soc. Amer. Ann. 29: 289. ♀ ♂.

minutula Mickel. Okla., Tex. (Type from Tenn., Mo. or Ark.).
Lomachaeta minutula Mickel, 1936. Ent. Soc. Amer. Ann. 29: 294. ♀.

punctinota Mickel. Ill. (Carbondale).
Lomachaeta punctinota Mickel, 1936. Ent. Soc. Amer. Ann. 29: 293. ♂.

variegata Mickel. Calif. (Riverside Co.). Host: Larrinae in twig.
Lomachaeta variegata Mickel, 1940. Pan-Pacific Ent. 16: 128. ♀ ♂.

Subfamily MUTILLINAE

Tribe MUTILLINI

Genus TIMULLA Ashmead

Subgenus TIMULLA Ashmead

Timulla Ashmead, 1899. N. Y. Ent. Soc. Jour. 7: 55.
Type: *Mutilla dubitata* Smith. Monob. and orig. desig.
Revision: Mickel, 1937. Ent. Amer. 17 (n. s.): 1–119.

barbata (Fox). Mo., La.
Mutilla barbata Fox, 1899. Amer. Ent. Soc. Trans. 25: 272. ♂.

barbigera barbigera (Bradley). Va. south to Fla., west to S. Dak. and Tex. in U. and L. Austr. Zones.
Mutilla (*Timulla*) *barbigera* Bradley, 1916. Amer. Ent. Soc. Trans. 42: 206. ♂.

barbigera rohweri Mickel. Kans., Okla. in U. Sonor. Zone.
Timulla (*Timulla*) *barbigera rohweri* Mickel, 1937. Ent. Amer. 17 (n. s.): 58 ♂.

compressicornis Mickel. N. C. to Tex. in L. Austr. Zone.
Timulla (*Timulla*) *compressicornis* Mickel, 1937. Ent. Amer. 17 (n. s.): 59. ♂.

contigua Mickel. Tex. (Brownsville).
Timulla (Timulla) contigua Mickel, 1937. Ent. Amer. 17 (n. s.): 107. ♀.

dubitata dubitata (Smith). N. Y. south to Fla., west to Okla. and Tex. in L. Austr. Zone.
Mutilla dubitata Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 60. ♀.
Mutilla dubiatta (!) Blake, 1886. Amer. Ent. Soc. Trans. 13: 201. ♀.

dubitata fugitiva Mickel. N. J. south to Ga., west to Nebr. and Tex. in U. Austr. Zone.
Timulla (Timulla) dubitata fugitiva Mickel, 1937. Ent. Amer. 17 (n. s.): 39. ♂.

dubitatiformis Mickel. Mass. south to Fla., west to Mont. and Tex.
Timulla (Timulla) dubitatiformis Mickel, 1937. Ent. Amer. 17 (n. s.): 102. ♀.

euphrosyne Mickel. Fla., Tex.
Timulla (Timulla) euphrosyne Mickel, 1937. Ent. Amer. 17 (n. s.): 64. ♀.

euterpe (Blake). Fla., La., Tex.
Mutilla Euterpe Blake, 1879. Amer. Ent. Soc. Trans. 7: 249. ♀.

ferrugata (Fabricius). N. J. south to Fla., west to Okla. and Tex. in U. and L. Austr. Zones. Host: *Eumenes fraternus* Say.
Mutilla ferrugata Fabricius, 1805. Systema Piezatorum, p. 438. ♀.
Mutilla rufa Lepeletier, 1845. Hist. Nat. Ins. Hym., v. 3, p. 631. ♂.
Mutilla Promethea Blake, 1871. Amer. Ent. Soc. Trans. 3: 229. ♂.
Biology: Fattig, 1943. Emory Univ. Mus. Bul. 1: 3.

floridensis (Blake). S. C. to Tex. in L. Austr. Zone.
Mutilla floridensis Blake, 1879. Amer. Ent. Soc. Trans. 7: 249. ♂.

grotei (Blake). Colo., Utah, Tex., N. Mex., Ariz.
Mutilla Grotei Blake, 1871. Amer. Ent. Soc. Trans. 3: 228. ♂.

hollensis hollensis (Melander). Mass., N. Y., Md.
Mutilla Sayi var. *hollensis* Melander, 1903. Amer. Ent. Soc. Trans. 29: 324. ♂.

hollensis melanderi Mickel. N. J., Pa., Md., Va.
Timulla (Timulla) hollensis melanderi Mickel, 1937. Ent. Amer. 17 (n. s.): 101. ♂.

huntleyensis Mickel. Mont. (Huntley).
Timulla (Timulla) huntleyenis Mickel, 1937. Ent. Amer. 17 (n. s.): 82. ♂.

kansana Mickel. Kans.
Timulla (Timulla) kansana Mickel, 1937. Ent. Amer. 17 (n. s.): 94. ♂.

leona (Blake). Wis. south to Fla., west to Nebr. and Tex. in U. and L. Austr. Zones.
Mutilla Leona Blake, 1871. Amer. Ent. Soc. Trans. 3: 230. ♀.

navasota coahuila Krombein, n. name. Tex. west of 100th Meridian, N. Mex., Ariz.
Timulla (Timulla) navasota nebulosa Mickel, 1937. Ent. Amer. 17 (n. s.): 29. ♂. Preocc. by Mickel, 1935.

navasota navasota (Bradley). Tex. east of 100th Meridian.
Mutilla (Timulla) navasota Bradley, 1916. Amer. Ent. Soc. Trans. 42: 213. ♂.

neobule Mickel. Ariz.
Timulla (Timulla) neobule Mickel, 1937. Ent. Amer. 17 (n. s.): 44. ♂.

nicholi Mickel. Ariz.
Timulla (Timulla) nicholi Mickel, 1937. Ent. Amer. 17 (n. s.): 47. ♀.

nitela Mickel. Ariz. (Douglas).
Timulla (Timulla) nitela Mickel, 1937. Ent. Amer. 17 (n. s.): 43. ♂.

oajaca (Blake). Tex., N. Mex., Ariz.
Mutilla oajaca Blake, 1871. Amer. Ent. Soc. Trans. 3: 228. ♂ (♀ misdet.).
Mutilla nestor Fox, 1899. Amer. Ent. Soc. Trans. 25: 271. ♂.
Mutilla ornata Howard, 1901. Insect Book, pl. 8, fig. 21. ♀.

ocellaria ocellaria Mickel. Ohio, Ind., Ky., Tenn., Ga. Host: *Ligyrus gibbosus* (Deg.).
Timulla (Timulla) ocellaria ocellaria Mickel, 1937. Ent. Amer. 17 (n. s.): 91. ♂.
Biology: Fattig, 1943. Emory Univ. Mus. Bul. 1: 5.

ocellaria rufidorsa Mickel. Miss., Mo., Kans., Okla., Tex.
Timulla (Timulla) ocellaria rufidorsa Mickel, 1937. Ent. Amer. 17 (n. s.): 93. ♂.

ornatipennis (Bradley). N. J. south to Fla. west to Tenn. and Miss.
Mutilla (Timulla) ornatipennis Bradley, 1916. Amer. Ent. Soc. Trans. 42: 205. ♀ ♂.

rufosignata (Bradley). Ga., Fla.
Mutilla (Timulla) rufosignata Bradley, 1916. Amer. Ent. Soc. Trans. 42: 212. ♂.
Biology: Fattig, 1943. Emory Univ. Mus. Bul. 1: 6.

sayi (Blake). Tex. (Plano).
Mutilla Sayi Blake, 1871. Amer. Ent. Soc. Trans. 3: 229. ♂.

subhyalina Mickel. Ill., Iowa, Minn., N. Dak., S. Dak., Nebr., Kans., Mont., Oreg., B. C.
Timulla (Timulla) subhyalina Mickel, 1937. Ent. Amer 17 (n. s.): 97. ♂.

suspensa jonesi Mickel. Tex., Ariz.
Timulla (Timulla) suspensa jonesi Mickel, 1937. Ent. Amer. 17 (n. s.): 90. ♂.

suspensa sonora Mickel. Kans. and Colo. south to Tex. and Ariz.
Timulla (Timulla) suspensa sonora Mickel, 1937. Ent. Amer. 17 (n. s.): 84. ♀ ♂.

suspensa suspensa (Gerstaecker). Ariz.
Mutilla suspensa Gerstaecker, 1874. Arch. f. Naturgesch. 40: 299. ♀.

tolerata Mickel. Mo., Ga.
Timulla (Timulla) tolerata Mickel, 1937. Ent. Amer. 17 (n. s.): 109. ♂.

tyro Mickel. Ariz., Calif.
Timulla (Timulla) tyro Mickel, 1937. Ent. Amer. 17 (n. s.): 25. ♀ ♂.

vagans rufinota Mickel. D. C., S. C., Ga., Fla.
Timulla (Timulla) vagans rufinota Mickel, 1937. Ent. Amer. 17 (n. s.): 78. ♀ ♂.

vagans vagans (Fabricius). Vt. and Ont. south to Ala., west to B. C. and N. Mex.
Mutilla vagans Fabricius, 1798. Sup. Ent. System,. p. 282. ♀.
Mutilla (Mutilla) hexagona Say, 1836. Boston Jour. Nat. Hist. 1: 295. ♂.
Mutilla ornativentris Cresson, 1865. Ent. Soc. Phila. Proc. 4: 438. ♀.
Mutilla Briaxus Blake, 1871. Amer. Ent. Soc. Trans. 3: 227. ♂.
Mutilla Canadensis Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 250. ♂. Preocc.
Mutilla secunda Dalla Torre, 1897. Cat. Hym., v. 8, p. 84. N. name for *Mutilla Canadensis* Provancher, not *Mutilla canadensis* Blake.
Biology: Fattig, 1936. Ent. News 47: 51–52 (mating behavior).—Shappirio, 1948. Brooklyn Ent. Soc. Bul. 42: 163.

wileyae Mickel. Ark., La., Okla., Tex.
Timulla (Timulla) wileyae Mickel, 1937. Ent. Amer. 17 (n. s.): 41. ♀.

Tribe EPHUTINI

Genus EPHUTA Say

Ephuta Say, 1836. Boston Jour. Nat. Hist. 1: 297.
Type: *Mutilla (Ephuta) scrupea* Say. Desig. by Ashmead, 1899.
Rhoptromutilla André, 1903. *In* Wytsman, Gen. Ins. 1, fasc. 11, p. 43.
Type: *Mutilla chrysodora* Perty. Orig. desig.
Ephutopsis Ashmead, 1904. Canad. Ent. 36: 6.
Type: *Mutilla odontophora* Cameron. Desig. by Mickel, 1928.
Revision: Bradley, 1916. Amer. Ent. Soc. Trans. 42: 187–198.

battlei Bradley. S. C., Ga.
Ephuta battlei Bradley, 1916. Amer. Ent. Soc. Trans. 42: 195. ♂.

conchate Mickel. Minn. (Fort Snelling).
Ephuta conchate Mickel, 1928. Minn. State Ent. Rpt. 19: 111. ♂.

copano (Blake). Tex.
Mutilla Copano Blake, 1871. Amer. Ent. Soc. Trans. 3: 232. ♂.

grisea Bradley. Colo., Mont., N. Dak.
Ephuta grisea Bradley, 1916. Amer. Ent. Soc. Trans. 42: 194. ♂.

pauxilla Bradley. Conn., N. J., D. C., Va., Ga., Ala., Miss., Tex.
Ephuta pauxilla Bradley, 1916. Amer. Ent. Soc. Trans. 42: 197. ♂.

puteola (Blake). Mass. south to Fla., west to Iowa, Tex. Undoubtedly a composite species.
Mutilla puteola Blake, 1879. Amer. Ent. Soc. Trans. 7: 252. ♀.

rufisquamis (André), n. comb. Ariz.
Rhoptromutilla rufisquamis André, 1905. Ztschr. System. Hym. Dipt. 5: 366. ♂.

scrupea (Say). Pa., Md., Va., Ga., Ala., Ind.
Mutilla (Ephuta) scrupea Say, 1836. Boston Jour. Nat. Hist. 1: 297. ♂.

slossonae (Fox). Fla.
Mutilla Slossonae Fox, 1899. Amer. Ent. Soc. Trans. 25: 273. ♂.

sudatrix (Melander), n. comb. Tex. (Fedor).
Mutilla sudatrix Melander, 1903. Amer. Ent. Soc. Trans. 29: 325. ♀.

susura (Melander). Tex.
Mutilla susura Melander, 1903. Amer. Ent. Soc. Trans. 29: 324. ♂.

tegulicia Bradley. Tex.
Ephuta tegulicia Bradley, 1916. Amer. Ent. Soc. Trans. 42: 193. ♂.

Mutillidae of Uncertain Generic Position

Sphaerophthalma (!) ***argentipilis*** Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 251. ♂.
Mutilla contracta Say, 1836. Boston Jour. Nat. Hist. 1: 295. ♂.
Mutilla exulans Fabricius, 1775. Systema Ent., p. 397. ♀.
Mutilla versicolor Fabricius, 1775. Systema Ent., p. 398. ♀.
Mutilla vigilans Say, 1836. Boston Jour. Nat. Hist. 1: 296. ♂.

Mutilla ajax, *M. floridana*, and *M. trisignata* from Florida, all described by Blake from the Harris Collection, are omitted from this list since, from the descriptions, it seems likely that the locality given is erroneous. The types cannot be found in the Museum of Comparative Zoology, which now houses the Harris Collection, or in the Academy of Natural Sciences of Philadelphia, which is the repository for many of the species described by Blake.

Family RHOPALOSOMATIDAE

Genus RHOPALOSOMA Cresson

Rhopalosoma Cresson, 1865. Ent. Soc. Phila. Proc. 4: 58.
Type: ***Rhopalosoma Poeyi*** Cresson. Monob.
Sibyllina Westwood, 1868. Ent. Soc. London, Trans., p. 329.
Type: ***Sibyllina aenigmatica*** Westwood. Monob.
Paniscomima Enderlein, 1904. Zool. Anz. 27: 465, 1 fig. N. syn.
Type: ***Paniscomima Erlangeriana*** Enderlein. Monob.
Revision: Brues, 1943. Ent. Soc. Amer. Ann. 36: 310–318, 1. pl.

nearcticum Brues. Md. south to Fla., Ky., Mo. Host: *Orocharis saltator* Uhler.
Rhopalosoma nearcticum Brues, 1943. Ent. Soc. Amer. Ann. 36: 316. ♀ ♂.
Biology: Hood, 1913 [1914]. Ent. Soc. Wash. Proc. 15: 145–147, 1 fig. (Misdet. as *R. poeyi* Cresson.)

Genus OLIXON Cameron

Olixon Cameron, 1887. Biol. Cent.-Amer. Hym., v. 1, p. 412.
Type: ***Olixon testaceum*** Cameron. Monob.
Saphobethylus Kieffer, 1911. Soc. Sci. Bruxelles, Ann. (2) 35: 216.
Type: (***Saphobethylus pallidus*** Kieffer)=***Olixon testaceum*** Cameron. Monob.
Nealgoa Brues, 1922. Psyche 29: 105. N. syn.
Type: ***Nealgoa banksii*** Brues. Monob.

banksii (Brues). N. Y., D. C., N. C., Fla., Ohio, Minn., Kans.
Nealgoa banksii Brues, 1922. Psyche 29: 106. ♀.
Biology: Krombein, 1950 (1949). Elisha Mitchell Sci. Soc. Jour. 65: 264–265, ♂.
Taxonomy: Reid, 1939. Roy. Ent. Soc.. London, Proc. 8: 101.

Family SCOLIIDAE

Members of this family are external parasites of larvae of Scarabaeidae in the soil.

I am indebted to Prof. J. C. Bradley for some notes on distribution and for confirmation of synonymy previously established in the family.

Genus SCOLIA Fabricius

Revision: Bartlett, 1912. Ent. Soc. Amer. Ann. 5: 293–340, 2 pls.

Subgenus SCOLIA Fabricius

Scolia Fabricius, 1775. Systema Ent., p. 355.
Type: ***Scolia quadripunctata*** Fabricius. Desig. by Latreille, 1810.
Lacosi Guérin, 1838. *In* Duperrey, Voy. Coquille, Zool., v. 2, p. 247.
Type: ***Scolia quadripunctata*** Fabricius. Desig. by Bequaert, 1926.
Lisoca Costa, 1858. Fauna Napoli Scoliid., p. 8.
Type: ***Scolia quadripunctata*** Fabricius. Pres. desig.
Discolia Saussure and Sichel, 1864. Cat. Spec. Gen. Scol., p. 14.
Type: ***Scolia apicicornis*** Saussure. Desig. by Ashmead, 1903.

bicincta Fabricius. U. and L. Austr. Zones, east of 100th Meridian.
Scolia bicincta Fabricius, 1775. Systema Ent., p. 356.
Scolia obscura Klug, 1805. *In* Weber and Mohr, Beitr. z. Naturk. 1: 33.
Scolia undata Klug, 1810. *In* Weber and Mohr, Beitr. z. Naturk. 2: 212. ♀.
Taxonomy: Brimley, 1920. Ent. News 31: 261–262.

consors Saussure. Colo.; L. Calif.
Scolia consors Saussure, 1863. Soc. Ent. France Ann. (4) 3: 18. ♂.
Scolia amoena Cresson, 1865. Ent. Soc. Phila. Proc. 4: 447. ♂.

dubia dubia Say. U. and L. Austr. Zones, Mass. to Fla., west to Colo. and Ariz.
Host: ?*Cotinis nitida* (L.).
Scolia dubia Say, 1837. Boston Jour. Nat. Hist. 1: 364.
Scolia aulica Burmeister, 1853. Naturf. Gesell. Halle Abhandl. 1 (4): 33. ♀ ♂.
Discolia thalia Banks, 1912. Canad. Ent. 44: 199. ♂. N. syn.
Biology: Rau and Rau, 1918. Wasp Studies Afield, pp. 129–132.—Rau, 1932. Brooklyn Ent. Soc. Bul. 27: 59–62.

dubia haematodes Burmeister. Tex., N. Mex., Ariz., Calif.
Scolia haematodes Burmeister, 1853. Naturf. Gesell. Halle Abhandl. 1 (4): 33. ♀ ♂.
Elis Americana Saussure, 1857. Rev. Mag. Zool. (2) 9: 282. ♂.

dubia monticola Cameron, n. status. Mexico, north into west. Tex., N. Mex., and Ariz.
Scolia monticola Cameron, 1893. Biol. Cent.-Amer., Hym., v. 2, p. 223. ♀ ♂.

guttata Burmeister. Tex.
Scolia guttata Burmeister, 1853. Naturf. Gesell. Halle Abhandl. 1 (4): 36. ♀.
Discolia Hecate Kirby, 1889. Ent. Soc. London, Trans., p. 449. ♂.

nobilitata nobilitata Fabricius, n. status. U. and L. Austr. Zones, Mass. to Fla., west to Colo. and Tex.
?***Sphex bifasciata*** Swederus, 1787. Svensk. Vetensk.-Akad. Handl. 8: 281.
Scolia nobilitata Fabricius, 1805. Systema Piezatorum, p. 244.
Scolia tricolor Klug, 1805. *In* Weber and Mohr, Beitr. z. Naturk. 1: 35.
Scolia maculata Guérin, 1838. *In* Duperrey, Voy. Coquille, Zool., v. 2, p. 255. ♀. Preocc.
Scolia ornata Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 96. N. name.

nobilitata tricincta Say, n. status. West. Kans. and Tex., Colo., N. Mex., Ariz.
Scolia tricincta Say, 1823. West. Quart. Rptr. 2: 74. ?♂.
Scolia Ridingsii Cresson, 1865. Ent. Soc. Phila. Proc. 4: 445. ♀. N. syn.
Scolia inconstans Cresson, 1865. Ent. Soc. Phila. Proc. 4: 446. ♂. N. syn.
Scolia (Discolia) Lecontei Cresson, 1868. Amer. Ent. Soc. Trans. 1: 376. ♀. N. syn.
Scolia (Discolia) flavocostalis Cresson, 1868. Amer. Ent. Soc. Trans. 1: 377. ♂. N. syn.
Scolia Lewisii (!) Cresson, 1868. Amer. Ent. Soc. Trans. 1: 377. Lapsus for *lecontei*.
Scolia flavicostalis (!) Banks, 1912. Canad. Ent. 44: 200.

otomita Saussure. Nev., Ariz., Mex.
Scolia otomita Saussure, 1858. Soc. Ent. France Ann. (3) 6: 223. ♂.
Scolia fulviventris Bartlett, 1912. Ent. Soc. Amer. Ann. 5: 323. ♀. N. syn.

Subgenus TRISCOLIA Saussure and Sichel

Scolia subg. ***Triscolia*** Saussure and Sichel, 1864. Cat. Spec. Gen. Scol., p. 14.
Type: ***Scolia flavifrons*** Fabricius. Desig. by Bartlett, 1912.
Ascoli Saussure and Sichel, 1864. Cat. Spec. Gen. Scol., p. 14. Validated in syn. of *Triscolia*.
Type: ***Scolia flavifrons*** Fabricius. Present desig.

ardens Smith. Tex., N. Mex., Ariz., Calif., ?Oreg., south into Mexico.
Scolia fervida Burmeister, 1853. Naturf. Gesell. Halle Abhandl. 1 (4): 20. ♀. ♂. Preocc.
Scolia ardens Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 112. N. name.
Scolia Montezumae Saussure, 1857. Rev. Mag. Zool. (2) 9: 281. ♀.

Genus CAMPSOMERIS Guérin

Subgenus CAMPSOMERIS Guérin

Campsomeris Guérin, 1838. *In* Duperrey, Voy. Coquille, Zool., v. 2, p. 247.
Type: ***Scolia atrata*** Fabricius. Desig. by Bequaert, 1926.
Colpa Lepeletier, 1845. Hist. Nat. Ins. Hym., v. 3, p. 534.
Type: ***Colpa peregrina*** Lepeletier. Desig. by Betrem, 1928.
Elis subg. ***Dielis*** Saussure and Sichel, 1864. Cat. Spec. Gen. Scol., p. 14.
Type: ***Tiphia radula*** Fabricius. Desig. by Betrem, 1928.
Revisions: Rohwer, 1927. Wash. Acad. Sci. Jour. 17: 150–154 (group Tricincta, containing *fulvohirta* and *limosa*).—Bradley, 1928. Acad. Nat. Sci. Phila. Proc. 80: 313–337, 2 text figs., pl. 26 (group Plumipes, containing *pilipes*, *plumipes*, *tolteca*, and *trifasciata*).

Specimens of the Oriental *annulata* (Fabricius) were released in New Jersey in 1925 and 1926, but did not become established (Krombein, 1948. Ent. Soc. Amer. Ann. 41: 59).

ephippium ephippium (Say). Tex. (Victoria, Seguin) south to north. So. Amer.
Scolia ephippium Say, 1837. Boston Jour. Nat. Hist. 1: 363. ♂.
Scolia Petitii Guérin, 1838. *In* Duperrey, Voy. Coquille, Zool., v. 2, p. 249.

fulvohirta (Cresson). Fla. (Miami); Cuba.
Scolia (Elis) fulvohirta Cresson, 1865. Ent. Soc. Phila. Proc. 4: 119. ♀ ♂.
Campsomeris (Campsomeris) fulvhirta (!) Rohwer, 1927. Wash. Acad. Sci. Jour. 17: 154. ♀ ♂.

limosa (Burmeister). Ariz., Mexico.

Scolia limosa Burmeister, 1853. Naturf. Gesell. Halle Abhandl. 1 (4): 28. ♀ ♂.
Dielis fulvopilosa Banks, 1912. Canad. Ent. 44: 200. ♀. N. syn.

pilipes (Saussure). U. and L. Sonor. Zones.
Elis pilipes Saussure, 1858. Soc. Ent. France Ann. (3) 6: 246. ♀.
Biology: Linsley, 1946. Jour. Econ. Ent. 39: 27–28 (pollinating alfalfa; misdet. as *plumipes*).

plumipes confluenta (Say). U. Austr. between Allegheny and Rocky Mts.
Scolia confluenta Say, 1823. West. Quart. Rptr. 2: 74. ♀.

plumipes fossulana (Fabricius). Austrorip. from Md. to Fla., west to Tex.
Scolia fossulana Fabricius, 1805. Systema Piezatorum, p. 242. ♀.

plumipes plumipes (Drury). Carol. Zone from Mass. to Ga., Ky.
Sphex plumipes Drury, 1770. Illus. Nat. Hist., v. 1, p. 104, pl. 44, fig. 5. ♀.
Scolia radula Fabricius, 1775. Systema Ent., p. 355. N. name for *plumipes*. Preocc. in *Campsomeris* by *Tiphia radula* Fabricius, 1775, p. 354.
Scolia quadricincta Klug, 1805. *In* Weber and Mohr, Beitr. z. Naturk. 1: 37. ♀.

quadrinotata (Fabricius). Largely L. Austr. from Conn. south to Fla., west to Okla. and Tex.
Scolia quadrinotata Fabricius, 1805. Systema Piezatorum, p. 240. ♀.
Scolia Abotii Klug, 1810. *In* Weber and Mahr, Beitr. z. Naturk. 2: 213. ♂.
Colpa Pensylvanica Lepeletier, 1845. Hist. Nat. Ins. Hym., v. 3, p. 546. ♂.
Elis quadriguttata (!) Viereck, 1906. Amer. Ent. Soc. Trans. 32: 222.

tolteca (Saussure). Tex., Ariz., Calif., south into Mexico, Haiti.
Elis tolteca Saussure, 1857. Rev. Mag. Zool. (2) 9: 282. ♀.
Elis dives Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 140. ♀.
Elis 4-cincta Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 411. ♂. N. syn.

trifasciata trifasciata (Fabricius). Fla. (Miami) and Greater Antilles.
Tiphia trifasciata Fabricius, 1793. Ent. System., v. 2, p. 226. ♀.
Colpa Alexandri Lepeletier, 1845. Hist. Nat. Ins. Hym., v. 3, p. 543. ♂.

Genus CAMPSOSCOLIA Betrem

Campsoscolia Betrem, 1933. Stettin. Ent. Ztg. 94: 240.
Type: *Scolia sexmaculata* Fabricius. Orig. desig.
Revision: Bradley, 1928. Amer. Ent. Soc. Trans. 54: 195–214, 4 text figs., pl. 22.

alcione (Banks), n. comb. U. Sonor. Zone.
Trielis alcione Banks, 1917. Harvard Univ. Mus. Compar. Zool. Bul. 61: 112. ♂.

flammicoma (Bradley), n. comb. L. Sonoran Zone.
Campsomeris (Trielis) flammicoma Bradley, 1928. Amer. Ent. Soc. Trans. 54: 209. ♀ ♂.

octomaculata hermione (Banks), n. comb. Austrorip., N. J. to Fla., Ala., Ill.
Trielis hermione Banks, 1912. Canad. Ent. 44: 200. ♂.

octomaculata octomaculata (Say), n. comb. U. Austr. Zone west of Allegheny Mts. and east of 100th Meridian.
Scolia octomaculata Say, 1823. West. Quart. Rptr. 2: 74. ♀.

octomaculata texensis (Saussure), n. comb. U. and L. Sonoran Zones.
Elis texensis Saussure, 1858. Soc. Ent. France Ann. (3) 6: 224. ♂.
Scolia regina Cresson, 1865. Ent. Soc. Phila. Proc. 4: 447. ♀.
Scolia consors Cresson, 1865. Ent. Soc. Phila. Proc. 4: 449. ♂. Preocc.
Scolia flavosignata Cresson, 1865. Ent. Soc. Phila. Proc. 4: 449. ♂.
Elis (Trielis) zonaria Cresson, 1868. Amer. Ent. Soc. Trans. 1: 378. N. name.
Elis lupina Cresson, 1872. Amer. Ent. Soc. Trans. 4: 202. ♀.

pollenifera (Viereck), n. comb. Kans., N. Mex., Ariz.
Elis (Trielis) pollenifera Viereck, 1906. Amer. Ent. Soc. Trans. 32: 190. ♀.
Elis (Trielis) pollenifera var. *a* Viereck, 1906. Amer. Ent. Soc. Trans. 32: 191. ♀ ♂.

Family SAPYGIDAE[28]

Subfamily FEDTSCHENKIINAE

Genus FEDTSCHENKIA Saussure

Fedtschenkia Saussure, 1880. *In* Fedtschenko, Reise in Turkestan, II, Zool. Th., 13 Hymenoptera: Scoliidae, p. 13.
Type: ***Fedtschenkia grossa*** Saussure. Monob.
Cosilella Banks, 1913. Amer. Mus. Nat. Hist. Bul. 32: 237.
Type: ***Cosila plutonis*** Banks. Orig. desig.
Revision: Pate, 1947. Acta Zool. Lilloana [Tucuman] 4: 396–402.

anthracina (Ashmead). Calif.
Telephoromyia anthracina Ashmead, 1898. Psyche 8: 251. ♂.
Cosila plutonis Banks, 1913. Amer. Mus. Bul. 32: 237. ♀.

Subfamily SAPYGINAE

So far as is known, all species are parasitic in the nests of bees.

Genus SAPYGA Latreille

Sapyga Latreille, 1796. Précis Caract, Ins., p. 134.
Type: ***Scolia 5-punctata*** Fabricius. Desig. by Latreille, 1802.
Hellus Fabricius, 1805. Systema Piezatorum, p. xiii.
Type: ***Hellus 6-punctatus*** Fabricius (=***Sapyga 5-punctata*** (Fabricius)). Desig. by Shuckard, 1837.

Host records include megachilid bees of the genera *Osmia, Hoplitis, Chelostoma, Ashmeadiella, Megachile,* and *Dianthidium.*

aculeata Cresson. Alta., Wyo., Colo., Oreg., Calif. Transition Zone. Parasitic on bees of the genus *Hoplitis.*
Sapyga aculeata Cresson, 1865. Ent. Soc. Phila. Proc. 4: 450. ♀.
Eusapyga aciculata (!) "Cresson" Hicks, 1934. Univ. Colo., Studies 21 (4): 268.
Biology: Davidson, 1896. Ent. News 7: 218.—Hicks, 1934. Univ. Colo., Studies 21 (4): 268.—Linsley and Michener, 1943. Pan-Pacific Ent. 18: 28.—Linsley, 1944. Brooklyn Ent. Soc. Bul. 39: 54.

angustata Cresson. Calif., Oreg., Wash., Wyo., Colo., Utah, Nev., Ariz. L. and U. Sonor. and Transition Zones. Parasitizes bees of the genera *Megachile* and *Osmia.*
Sapyga angustata Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xxi. ♂.
Sapyga moesta Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xx. ♂.
Sapyga obscura Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xxi. ♀.
Sapyga fulvicornis Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xxi. ♂.
Sapyga maesta (!) "Cresson" Dalla Torre, 1897. Cat. Hym., v. 8, p. 192.
Sapyga russellensis Roberts, 1929. Psyche 36: 360. ♀.
Biology: Linsley and Michener, 1942. Pan-Pacific Ent. 18: 28.—Linsley, 1944. Brooklyn Ent. Soc. Bul. 39: 54.

centrata Say. Ont., Ill., Pa., N. Y., N. J., Del., Md., D. C., Va., S. C., Tex.
Sapyga centrata Say, 1836. Boston Jour. Nat. Hist. 1: 301.
Sapyga americana Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xx. ♀.
Sapyga pelopaei Ashmead, 1896. Amer. Ent. Soc. Trans. 23: 179. ♂.

confluenta Cresson. Colo., N. H. Parasitizes species of the genus *Osmia.*
Sapyga confluenta Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xx. ♂
Sapyga emarginata Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xx. ♀.
Biology: Hicks, 1934. Univ. Colo., Studies 21: 265–271.

elegans Cresson. Colo., Nev., Calif., Oreg., Idaho. U. Sonor. and Transit. Zones. Visits flowers of *Arctostaphylos nevadensis.*
Sapyga elegans Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xxi. ♂ ♀.

[28] By Richard M. Bohart, University of California, Davis, Calif.

Sapyga coloradensis Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xxi. ♂.

Sapyga truncata Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xxi. ♂.
Biology: Linsley and Michener, 1942. Pan-Pacific Ent. 18: 28.

interrupta Roberts. Colo.
Sapyga interrupta Roberts, 1929. Psyche 36: 359. ♀.

louisi Krombein. N. Y., Mich., Tex. (Fedor, Dallas, Brownsville).
Sapyga louisi Krombein, 1938. Ent. Soc. Amer. Ann. 31: 467. ♂ ♀.

maculata Provancher. Que.
Sapyga maculata Provancher, 1882. Nat. Canad. 13: 9. ♀.

martinii Smith. Canad, Wash., Wyo., Colo., Utah, N. H.
Sapyga martinii Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 117. ♂ ♀.

nevadica Cresson. Wash., Idaho, Oreg., Calif., Nev., Utah, Tex.
Sapyga nevadica Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xxi. ♂.
Sapyga montana Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xxi. ♀.

pumila Cresson. Alta., Colo., N. Mex., Nebr., Utah, Nev., Calif. Parasitizes bees of the genera *Ashmeadiella* and *Dianthidium*.
Sapyga pumila Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xx. ♀.
Sapyga minor Roberts, 1933. Kans. Ent. Soc. Jour. 6: 96. ♂.
Biology: Hicks, 1934. Univ. Colo., Studies 21: 265–271.—Linsley, 1944. Brooklyn Ent. Soc. Bul. 39: 54.

Genus EUSAPYGA Cresson

Eusapyga Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xx.
Type: *Sapyga rubripes* Cresson. Desig. by Ashmead, 1903.

Host records include only the megachilid genus *Dianthidium*.

californica (Cresson). Calif.
Sapyga californica Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xx. ♂.

intermedia Roberts. Calif. Parasitizes bees of the genus *Dianthidium*.
Eusapyga intermedia Roberts, 1929. Psyche 36: 361. ♀.

nigripes (Cresson). Nev.
Sapyga nigripes Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xx. ♂.

rubripes carolina Banks. N. C.
Eusapyga carolina Banks, 1912. Canad. Ent. 44: 203. ♂.

rubripes proxima (Cresson). Colo., Wyo., Mont. Parasitizes bees of the genus *Dianthidium*.
Sapyga proxima Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xx. ♂.
Biology: Hicks, 1927. Psyche 34: 193–198.

rubripes rubripes (Cresson). Tex., Colo. Parasitizes bees of the genus *Dianthidium*.
Sapyga rubripes Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xx. ♂ ♀.

verticalis (Cresson). Calif., Nev. Transition Zone. Parasitizes bees of the genus *Dianthidium*.
Sapyga verticalis Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xx. ♀.
Biology: Hicks, 1934. Univ. Colo., Studies 21: 265–271.

Family FORMICIDAE[29]

Ants are social insects that live in colonies in diverse situations, more commonly in the ground or in rotting wood. Some are general feeders; others have highly specialized food habits. Although most ants are free-living forms, some are parasites on other species of ants or live as inquilines with them. A number of forms are of concern to man because of their feeding, nesting or stinging habits. A colony is normally composed of one of more reproductive females and workers, and at certain seasons of the year it contains also males and virgin females.

[29] By Marion R. Smith, U. S. Bureau of Entomology and Plant Quarantine.

Biology and Taxonomy: W. M. Wheeler, 1926. Ants, Their Structure, Development and Behavior.—M. R. Smith, 1943. Amer. Midland Nat. 30: 273–321.—M. R. Smith, 1947. Amer. Midland Nat. 37: 521–647.—Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 1-585, 57 pls.

Subfamily DORYLINAE

The legionary ants are the New World equivalent of the Old World driver or army ants. Highly predaceous, they are known for their foraging expeditions on other arthropods, including ants. They exhibit a number of peculiar developments not common to most ants, such as wasplike males, wingless, termitelike females, and often blind workers. The biology of most of the forms is not well known.

Genus ECITON Latreille

Subgenus ECITON Latreille

Eciton Latreille, 1804. Nouv. Dict. Hist. Nat. 24: 179.
Type: ***Formica hamata*** Fabricius. Desig. by Shuckard, 1840.
Ancylognathus Lund, 1831. Ann. des Sci. Nat. 23: 121.
Type: ***Ancylognathus lugubris*** Lund. Monob.
Camptognatha Westwood, 1832. *In* Griffith, Cuvier's Animal Kingdom 15 (Insecta 2), p. 516.
Type: ***Formica hamata*** Fabricius. Monob.
Mayromyrmex Ashmead, 1905. Canad. Ent. 37: 381.
Type: (***Labidus fargeavii*** Shuckard) =***Atta quadriglumis*** Haliday. Desig. by Ashmead, 1905.

Not known to occur in the Nearctic Region.

Subgenus NOMAMYRMEX Borgmeier

Eciton subg. ***Nomamyrmex*** Borgmeier, 1936. Inst. Biol. Veg. Arq. 3: 55.
Type: ***Eciton crassicornis*** F. Smith. Orig. desig.

crassicorne F. Smith. So. Amer. north to extreme south. Tex. This may prove to be the worker of *esenbeckii* (Westwood).
Eciton crassicornis F. Smith, 1855. Ent. Soc. London Trans. 3: 163. ♀.

esenbeckii (Westwood). So. Amer. north to extreme south. Tex. See note under *crassicorne* F. Smith.
Labidus Esenbeckii Westwood, 1842. Arcana Entomologica, v. 1, p. 75. ♂.
Eciton (Labidus) Esenbecki Wilsoni Santschi, 1919. Soc. Ent. France Ann. 88: 366. ♂.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 409, ♂.

Subgenus LABIDUS Jurine

Labidus Jurine, 1807. Nouv. Méth. Class. Hym. Dipt., p. 282.
Type: (***Labidus latreilli*** Jurine)=***Formica coeca*** Latreille. Desig. by Latreille, 1810.
Nycteresia Roger, 1861. Berlin. Ent. Ztschr. 5: 21.
Type: ***Formica coeca*** Latreille. Monob.
Pseudodicthadia André, 1885. Spec. Hym. Eur. Alg. 2: 838.
Type: (***Pseudodicthadia incerta*** André)=***Formica coeca*** Latreille. Monob.

coecum (Latreille). Argentina north to La., Okla., Tex. Workers are known to feed on injurious insects, especially the immature stages of the secondary screw-worm (*Callitroga macellaria* (F.)).
Formica coeca Latreille, 1802. Hist. Nat. Fourmis, v. 9, p. 270. ♀.
Labidus saji (!) Haldeman, 1852. *In* Stansbury, Exped. Great Salt Lake, p. 367. ♂.
Myrmica rubra Buckley, 1867. Ent. Soc. Phila. Proc. 6: 335. ♀. Preocc.

Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 408–409.
Taxonomy: Weber, 1941. Amer. Midland Nat. 26: 328, ♀.
Economics: Lindquist, 1942. Jour. Econ. Ent. 35: 850.

Subgenus NEIVAMYRMEX Borgmeier

Eciton subg. ***Acamatus*** Emery, 1894. Soc. Ent. Ital. Bol. 26: 181. Preocc.
Type: (***Eciton* (*Acamatus*) *schmitti*** Emery)=***Labidus nigrescens*** Cresson. Desig. by W. M. Wheeler, 1911.
Neivamyrmex Borgmeier, 1940. Rev. de Ent. 11: 606. N. name.
Revision: M. R. Smith, 1942. Amer. Midland Nat. 27: 537–590.

These ants occur mainly in the southern and southwestern U. S.; but one species, *nigrescens*, extends as far north in the Mississippi Valley Region as the 40th degree of latitude. The usually large colonies nest in rotten logs and stumps or the soil beneath stones. Most, if not all forms, make conspicuous foraging trails during daylight.

arizonense W. M. Wheeler. Ariz., Calif., N. Mex., Tex., La.; Mexico and Costa Rica. Worker and female unknown. This may prove to be the male of *commutatum* Emery.
Eciton* (*Acamatus*) *arizonense W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 414. ♂.

californicum Mayr. Calif. (San Francisco). Known only from the worker.
Eciton californicum Mayr, 1870. Zool.-Bot. Gesell. Wien Verh. 20: 969. ☿.
Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 62.

carolinense Emery. N. C., S. C., Tenn., Ala., Fla., Ga., Miss., La., Kans., Nebr.
Eciton* (*Acamatus*) *carolinense Emery, 1894. Soc. Ent. Ital. Bol. 26: 184. ☿.
Biology: Dennis, 1938. Ent. Soc. Amer. Ann. 31: 278, 304.

commutatum Emery. Ariz., Tex., La.; Lower Calif., New Granada, Bolivia. Known only from the worker caste. *E.* (*N.*) *arizonense* may prove to be the male.
Eciton* (*Acamatus*) *commutatum Emery, 1900. R. Accad. delle Sci. dell'Ist. Bologna Mem. 8: 522. ☿.

fuscipenne (W. M. Wheeler). Tex. (specific locality unknown). Only the male is known.
Acamatus fuscipennis W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: ♂. (Misdet. as *spoliator* Forel but *fuscipennis* validated by pl. 26, fig. 12.)

harrisii (Haldeman.) Ariz., N. Mex., Okla., Tex.; Mexico. Records citing this species from Utah are probably incorrect. Only the male is known. *E.* (*N.*) *wheeleri* may prove to be the worker.
Labidus harrisii Haldeman, 1852. *In* Stanbury, Exped. Great Salt Lake, p. 367. ♂.

leonardi W. M. Wheeler. Calif. (Point Loma, near San Diego). Only the worker is known.
Eciton* (*Acamatus*) *leonardi W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 392. ☿.

melanocephalum Emery. South. Ariz.; Mexico. Only the worker is known.
Eciton* (*Acamatus*) *melanocephalum Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 260. ☿.
Eciton* (*Acamatus*) *melanocephalum xipe W. M. Wheeler, 1914. N. Y. Ent. Soc. Jour. 22: 41. ☿.

melsheimeri (Haldeman). La., Okla., Tex.; Mexico, Central America. Known only from the male. Records citing this species as originally from Utah are probably incorrect.
Labidus melshaemeri (!) Haldeman, 1852. *In* Stanbury, Exped. Great Salt Lake, p. 368. ♂.
Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 418.

minus (Cresson). Kans. and Tex. to Ariz., south to Mexico. Only the male is known. One of the smallest males of our legionary ants.

Labidus minor Cresson, 1872. Amer. Ent. Soc. Trans. 4: 195. ♂.
Biology: W. M. Wheeler and W. H. Long, 1901. Amer. Nat. 35: 165.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 418, ♂.

mojave M. R. Smith. Calif. (Mojave Desert). Known only from the male.
Eciton (Neivamyrmex) mojave M. R. Smith, 1943. Lloydia 6: 196. ♂.

nigrescens (Cresson). Va. to Fla., west to Calif., and north to Iowa. Apparently our most common and widely distributed species of *Neivamyrmex*.
Labidus nigrescens Cresson, 1872. Amer. Ent. Soc. Trans. 4: 194. ♂.
Eciton (Acamatus) Schmitti Emery, 1894. Soc. Ent. Ital. Bol. 26: 183. ☿.
Biology: W. M. Wheeler, 1900. Amer. Nat. 34: 565–574.—M. R. Smith, 1927. Ent. Soc. Amer. Ann. 20: 401–404.

opacithorax Emery. N. C. to Fla., west to N. Mex. and north to Iowa.
Eciton (Acamatus) californicum opacithorax Emery, 1894. Soc. Ent. Ital. Bol. 26 184. ☿.
Biology: W. M. Wheeler and W. H. Long, 1901. Amer. Nat. 35: 163, 172.—M. R. Smith, 1924. Ent. News 35: 84.

oslari W. M. Wheeler. Ariz. (Nogales). Known only from the male.
Eciton (Acamatus) oslari W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 415. ♂.
Biology: Cole, 1934. Ent. Soc. Amer. Ann. 27: 394.

pauxillum W. M. Wheeler. Tex. (Austin). Only the worker is known.
Eciton (Acamatus) pauxillum W. M. Wheeler, 1903. Psyche 10: 93. ☿.
Biology: M. R. Smith, 1938. Ent. Soc. Wash. Proc. 40: 158.

pilosum mandibulare M. R. Smith. Ariz. (30 miles east of Quijotoa in Pima County). Known only from males.
Eciton (Neivamyrmex) pilosum mandibulare M. R. Smith, 1942. Amer. Midland Nat. 27: 543, 548. ♂.

pilosum pilosum F. Smith. Miss., La., Ark., Okla., Tex., Calif., south to Brazil and Paraguay.
Eciton pilosa F. Smith, 1858. Cat. Hym. Brit. Mus., v. 6, p. 151. ☿.
Labidus Mexicanus F. Smith, 1859. Cat. Hym. Brit. Mus., v. 7, p. 7. ♂.
Eciton clavicornis Norton, 1868. Amer. Ent. Soc. Trans. 2: 46. ☿.
Eciton (Labidus) subsulcatum Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 440. ♂.
Biology: M. R. Smith, 1924. Ent. News 35: 85.
Taxonomy: Reichensperger, 1939. Zool. Jahrb. Abt. f. System. 73: 297–300, ♀.

wheeleri Emery. Tex.; Mexico. Known only from the worker and female which may prove to be the worker and female of *harrisii*.
Eciton Wheeleri Emery, 1901. Soc. Ent. Ital. Bol. 33: 65. ☿.
Eciton (Acamatus) wheeleri dubia Creighton, 1932. Psyche 39: 75. ☿ ♀.

Unrecognized Forms of Eciton Subgenus Neivamyrmex Borgemeier

californicum var. **obscura** Forel. South. Calif. (Vista).
Eciton (Acamatus) californicum var. ***obscura*** Forel, 1914. Soc. Vaud. Sci. Nat. Bul. 50: 265.

coeca (Buckley). Tex. (San Saba County).
Myrmica (Monomarium (!)) ***coeca*** Buckley, 1867. Ent. Soc. Phila. Proc. 6: 339. ☿.

Subfamily CERAPACHYINAE

This subfamily contains only three known Nearctic forms; these have been recorded from Arizona and Texas. They are extremely rare; and the colonies are usually small, being composed of a few dozen individuals or less. The ants are predaceous and carnivorous.

Genus CERAPACHYS F. Smith

Subgenus CERAPACHYS F. Smith

Cerapachys F. Smith, 1858. Linn. Soc. London, Jour., Zool. 2: 74.
Type: ***Cerapachys antennatus*** F. Smith. Monob.

Not known to occur in the Nearctic Region.

Subgenus PARASYSCIA Emery

Parasyscia Emery, 1882. *In* André, Spec. Hym. Eur. Alg. 2: 235.
Type: ***Parasyscia piochardi*** Emery. Monob.

augustae W. M. Wheeler. Ariz., Tex.; Mexico.
Cerapachys (Parasyscia) augustae W. M. Wheeler, 1902. Biol. Bul. 3: 182. ☿ ♀.
Biology: W. M. Wheeler, 1903. Psyche 10: 205–209.
Taxonomy: M. R. Smith, 1942. Ent. Soc. Wash. Proc. 44: 63, ♂.

davisi M. R. Smith. Tex. (Fort Davis, 5,000 ft.).
Cerapachys (Parasyscia) davisi M. R. Smith, 1942. Ent. Soc. Wash. Proc. 44: 64. ♂.

GENUS ACANTHOSTICHUS Mayr

Subgenus ACANTHOSTICHUS Mayr

Acanthostichus Mayr, 1887. Zool.-Bot. Gesell. Wien, Verh. 37: 549.
Type: ***Typhlopone serratula*** F. Smith. Monob.
Revision: W. M. Wheeler, 1934. Harvard Univ., Mus. Compar. Zool. Bul. 77: 161–163.

Not known to occur in the Nearctic Region.

Subgenus CTENOPYGA Ashmead

Ctenopyga Ashmead, 1905. Canad. Ent. 37: 382 (*nom. nud.*).—Ashmead, 1906. Ent. Soc. Wash. Proc. 8: 29.
Type: ***Ctenopyga townsendi*** Ashmead. Orig. desig.

Ants of this subgenus are known to occur in Mexico and southwestern United States.

texanus Forel. Tex.
Acanthostichus texanus Forel, 1904. Soc. Ent. Belg. Ann. 48: 168. ♀.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 400. ♀.

Subfamily PONERINAE

One of the smaller subfamilies with 33 Nearctic forms, most of which occur in the southern half of the United States. These are primitive ants which nest in small colonies of a few hundred individuals or less in the soil or in rotting wood. They are predaceous and carnivorous. The pupae are enclosed in cocoons.

Genus STIGMATOMMA Roger

Stigmatomma Roger, 1859. Berlin. Ent. Ztschr. 3: 250.
Type: ***Stigmatomma denticulatum*** Roger. Desig. by Bingham, 1903.
Arotropus Provancher, 1881. Nat. Canad. 12: 205.
Type: (***Arotropus binodosus*** Provancher)=[***Typhlopone***] ***pallipes*** (Haldeman). Monob.
Revision: Creighton, 1940. Amer. Mus. Novitates 1079: 1–8.

The Nearctic forms commonly occur in wooded areas, especially those that are well shaded. The workers are timid, slow of movement, and of subterranean habits. They are believed to feed largely on myriapods.

pallipes montigena Creighton. Mts. of N. C. at elevations of 3,000 ft. or more.
Stigmatomma pallipes montigena Creighton, 1940. Amer. Mus. Novitates 1079: 2, 7. ☿ ♀.

pallipes oregonense W. M. Wheeler. B. C., Calif., Oreg., Wash.
Stigmatomma pallipes oregonense W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 389. ☿ ♀.

pallipes pallipes (Haldeman). Ont. and Que. to Wis. and Mo., south to the Gulf of Mexico.

Typhlopone pallipes Haldeman, 1844. Acad. Nat. Sci. Phila. Proc. 2: 54. ☿.

Stigmatomma serratum Roger, 1859. Berlin. Ent. Ztschr. 3: 251. ☿.

Arotropus binodosus Provancher, 1881. Nat. Canad. 12: 206. ♀.

Stigmatomma pallidipes (!) var. ***Wheeleri*** Santschi, 1913. Soc. Ent. Belg. Ann. 57: 429. ☿ ♀ ♂.

Stigmatomma pallipes arizonense W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 389. ☿.

Biology: W. M. Wheeler, 1900. Biol. Bul. 2: 56–64.—Haskins, 1928. N. Y. Ent. Soc. Jour. 36: 179–184.

Taxonomy: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 261–262, ☿ ♀ ♂.

pallipes subterranea Creighton. Iowa, Kans.

Stigmatomma pallipes subterranea Creighton, 1940. Amer. Mus. Novitates 1079: 3, 8. ☿.

Biology: Buren, 1944. Iowa State Col. Jour. Sci. 18: 279.

Genus PLATYTHYREA Roger

Platythyrea Roger, 1863. Berlin. Ent. Ztschr. 7: 172.
Type: ***Pachycondyla punctata*** F. Smith. Desig. by Bingham, 1903.

These ants nest in small colonies of a few hundred individuals each, usually in rotten logs and stumps. They are predaceous, probably feeding largely on termites. The workers run very fast when alarmed.

punctata (F. Smith). Fla. and Tex. to So. Amer. and the W. Indies.

Pachycondyla punctata F. Smith, 1858. Cat. Hym. Brit. Mus., v. 6, p. 108. ☿ ♂.

?Platythyrea inconspicua Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 961. ♀.

Platythyrea pruinosa Mayr, 1870. Zool.-Bot. Gesell. Wien. Verh. 20: 962. ☿.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 80.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 824.

Taxonomy: Forel, 1893. Ent. Soc. London, Trans., p. 358, ☿ ♀.—Mann, 1916. Harvard Univ., Mus. Compar. Zool. Bul. 60: 403, ☿.

Genus ECTATOMMA F. Smith

Subgenus ECTATOMMA F. Smith

Ectatomma F. Smith, 1858. Cat. Hym. Brit. Mus., v. 6, p. 102.
Type: ***Formica tuberculata*** Olivier. Desig. by Bingham, 1903.

tuberculatum (Olivier). ?Tex.; Mexico, Cent. and So. Amer. This species, known as the Kelep, was introduced into Texas from Guatemala in the early part of this century to combat the cotton boll weevil. It has apparently become extinct.

Formica tuberculata Olivier, 1791. Encycl. Meth., Dict. Ins., v. 6, p. 498. ☿.

Biology: Cook, 1904. U. S. Dept. Agr. Div. Ent. Bul. 49: 1–15.—Cook, 1905. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 10: 1–55.

Taxonomy: Lever, 1930. Ent. Monthly Mag. 66: 214, ♀.—Weber, 1946. Ent. Soc. Wash. Proc. 48: 4, ☿.

Physiology: Haskins and Enzmann, 1938. N. Y. Acad. Sci. Ann. 37: 100–162.

Subgenus PARECTATOMMA Emery

Ectatomma subg. ***Parectatomma*** Emery, 1911. *In* Wytsman, Gen. Ins., fasc. 118, p. 44.
Type: ***Ectatomma (Gnamptogenys) triangulare*** Mayr. Orig. desig.

hartmanni W. M. Wheeler. Tex. (Huntsville).

Ectatomma (Parectatomma) hartmani (!) W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 390. ☿.

Genus PROCERATIUM Roger

Proceratium Roger, 1863. Berlin. Ent. Ztschr. 7: 171.
Type: *Proceratium silaceum* Roger. Monob.
Revision: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 264–266.

Although most common in southeastern United States, ants of this genus have been found as far north as New York and as far west as Kansas and Texas. They usually nest in well-rotted, moist wood such as that of stumps and logs; and the colonies are small, seldom containing more than two or three dozen individuals. The workers are sluggish, hypogaeic, and entomophagous.

crassicorne Emery. N. Y., N. J., Pa., D. C., Va., Ohio, Miss.
Proceratium crassicorne Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 265. ☿.
Biology: M. R. Smith, 1928. Ent. News 29: 244.—L. G. Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 91.

crassicorne var. **vestitum** Emery. Md. (Charlton Heights).
Proceratium crassicorne var. *vestitum* Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 266. ☿.

croceum (Roger). Va. to Fla. and west to Ill. and Tex.
Ponera crocea Roger, 1860. Berlin Ent. Ztschr. 4: 288. ♀.
Biology: Haskins, 1930. N. Y. Ent. Soc. Jour. 38: 121–126.
Taxonomy: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 264, ☿ ♀.—M. R. Smith, 1930. Ent. Soc. Amer. Ann. 23: 390–392, ♂.

silaceum rugulosum W. M. Wheeler. Ind. (Wyandotte).
Proceratium silaceum rugulosum W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 390. ☿ ♀.
Biology: W. M. Wheeler, 1916. Ind. Acad. Sci. Proc. 26: 460.

silaceum silaceum Roger. Ont. south to Ga. and west to Ill. and Ark. One of the most common and widely distributed forms of the genus.
Proceratium silaceum Roger, 1863. Berlin. Ent. Ztschr. 7: 172. ☿.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 373, 375.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 272, 273, 276, 304.
Morphology: Kennedy and Talbot, 1939. Ind. Acad. Sci. Proc. 48: 206–210.
Taxonomy: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 265, ☿ ♀.—Kennedy and Talbot, 1939. Ind. Acad. Sci. Proc. 48: 202, ♂.

Genus SYSPHINCTA Roger

Sysphingta (!) Roger, 1863. Berlin. Ent. Ztschr. 7: 175.
Type: *Sysphingta* (!) *micrommata* Roger. Monob.
Sysphincta Mayr, 1865. Reise d. Novara, Zool. 1 (1) Formicidae, p. 12. Emend

The ants belonging to this genus are rare, subterranean forms, with primitive and degenerate habits. Although the biology is not well known the ants are believed to be carnivorous.

melina (Roger). "Carolina." This species has not been collected since it was originally described.
Ponera melina Roger, 1860. Berlin. Ent. Ztschr. 4: 291. ☿ ♀ ♂.
Taxonomy: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 263, ☿ ♀ ♂.

pergandei Emery. N. Y. south to S. C. and La.; west to Iowa.
Sysphincta pergandei Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 264. ☿.
Biology: Dennis, 1938. Ent. Soc. Amer. Ann. 31: 276, 304.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 90–91.
Taxonomy: M. R. Smith, 1928. Ent. News 39: 242–243, ♂.—Cole, 1940. Amer. Midland Nat. 24: 36, ☿.

Genus DISCOTHYREA Roger

Discothyrea Roger, 1863. Berlin. Ent. Ztschr. 7: 176.
Type: *Discothyrea testacea* Roger. Monob.

The biology of these ants is poorly known. A number of forms have been collected from humus on the soil floor, where they nest in extremely small colonies of about a dozen individuals.

testacea Roger. "Nord Amerika."
Discothyrea testacea Roger, 1863. Berlin. Ent. Ztschr. 7: 177. ☿ ♀.
Taxonomy: Weber, 1939. Ent. Soc. Amer. Ann. 32: 99, ☿ ♀.

Genus NEOPONERA Emery

Subgenus NEOPONERA Emery

Neoponera Emery, 1901. Soc. Ent. Belg. Ann. 45: 40, 43.
Type: ***Formica villosa*** Fabricius. Orig. desig.

A single species of this Neotropical genus has been taken as far north in Texas as San Antonio. Colonies occur in the soil and in logs and stumps. The workers can sting severely. They run rapidly in the bright sun in search of insects on which they feed.

villosa (Fabricius). South. Tex. to Brazil and Paraguay. The largest ponerine ant in the U. S.
Formica villosa Fabricius. 1804. Systema Piezatorum, p. 409. ☿.
Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 404.
Taxonomy: Roger, 1861. Berlin. Ent. Ztschr. 5: 1, ☿ ♂.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 403–404, ☿ ♀ ♂.

Genus PACHYCONDYLA F. Smith

Subgenus PACHYCONDYLA F. Smith

Pachycondyla F. Smith, 1858. Cat. Hym. Brit. Mus., v. 6, p. 105.
Type: ***Formica crassinoda*** Latreille. Desig. by Emery, 1901.
Revision: Emery, 1890. Soc. Ent. France Ann. 10: 71–74.

A single form of this Neotropical genus occurs in the United States.

harpax montezumia F. Smith. La., Tex.; Mexico and Cent. Amer. *Harpax harpax* (Fabricius), 1804, occurs in the Neotropical Region. Colonies of about 150 individuals occur in rotten logs and stumps or in the soil beneath objects. There are both ergatoid and normal females in this form.
Pachycondyla Montezumia F. Smith, 1858. Cat. Hym. Brit. Mus., v. 6, p. 108. ♀ ♂.
Pomera (!) ***amplinoda*** Buckley, 1866. Ent. Soc. Phila. Proc. 6: 171. ☿.
Pachycondyla Orizabana Norton, 1868. Amer. Nat. 2: 64. ☿.
Biology: W. M. Wheeler, 1900. Biol. Bul. 2: 1–31.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 401–403, ♀ ☿ ♂.

Genus EUPONERA Forel

Subgenus EUPONERA Forel

Ponera subg. ***Euponera*** Forel, 1891. *In* Grandidier, Hist. Nat. Phys. Madagascar, v. 20, p. 126.
Type: ***Ponera (Euponera) sikorae*** Forel. Monob.

Not known to occur in the Nearctic Region.

Subgenus BRACHYPONERA Emery

Euponera subg. ***Brachyponera*** Emery, 1901. Soc. Ent. Belg. Ann. 45: 43.
Type: ***Ponera sennaarensis*** Mayr. Orig. desig.

A single species has been introduced into southeastern United States, probably in plant shipments from the Old World. The small colonies occur in rotten wood or in the soil beneath objects. The ants feed largely on small arthropods.

solitaria (F. Smith). Ga., N. C., Va. (introduced); China, Japan, Formosa, and Korea.
Ponera solitaria F. Smith, 1874. Ent. Soc. London, Trans., p. 404. ☿.
Biology: W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 306.
Taxonomy: Emery, 1909. Deut. Ent. Ztschr., p. 366, ☿ ♀.—M. R. Smith, 1934. Ent. Soc. Amer. Ann. 27: 558–561, ☿.

Subgenus TRACHYMESOPUS Emery

Euponera subg. ***Trachymesopus*** Emery, 1911. *In* Wytsman, Gen. Ins., fasc. 118, p. 84.
Type: ***Formica stigma*** Fabricius. Orig. desig.
Revision: M. R. Smith, 1934. Ent. Soc. Amer. Ann. 27: 561–564.

gilva (Roger). Gulf States; Ga., Tenn.
Ponera gilva Roger, 1863. Berlin. Ent. Ztschr. 7: 170. ☿.
Euponera (Trachymesopus) gilva harnedi M. R. Smith, 1929. Ent. Soc. Amer. Ann. 22: 543. ☿.
Biology: Haskins, 1931. N. Y. Ent. Soc. Jour. 39: 507–514.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 277, 304.
Taxonomy: Creighton and Tulloch, 1930. Psyche 37: 73–79, ☿ ♀ ♂.
Physiology: Haskins, 1931. N. Y. Ent. Soc. Jour. 31: 514–521.

stigma (Fabricius). Fla.; Mexico, Cent. and So. Amer., and W. Indies.
Formica stigma Fabricius, 1804. Systema Piezatorum, p. 400. ♀.
Biology: M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 824.—Haskins and Enzmann, 1938. N. Y. Acad. Sci. Ann. 37: 151.

Genus PONERA Latreille

Ponera Latreille, 1804. Nouv. Dict. Hist. Nat. 24: 179.
Type: (***Formica contracta*** (!) Latreille)=*Formica coarctata* Latreille. Desig. by Westwood, 1840.
Revision: M. R. Smith, 1936. Ent. Soc. Amer. Ann. 29: 420–430.

Nests occur in small colonies in rotten wood or in the soil beneath cover. The workers are carnivorous. Both normal and ergatoid males occur in this genus, as well as individuals intermediate between the worker and female.

coarctata pennsylvanica Buckley. Que. and Ont., to Gulf of Mexico, and westward to S. Dak. and Kans. *P. coarctata coarctata* (Latreille) occurs in Europe.
Ponera Pennsylvanica Buckley, 1866. Ent. Soc. Phila. Proc. 6: 171. ☿.
Biology: W. M. Wheeler, 1900. Biol. Bul. 2: 22–23, 43–56.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 581.
Taxonomy: W. M. Wheeler, 1900. Biol. Bul. 2: 45–46, ☿ ♀ ♂.

ergatandria Forel. Calif., Tex.; Fla.; Cent. Amer. and W. Indies.
Ponera ergatandria Forel, 1893. Ent. Soc. London, Trans., p. 365. ☿ ♀, apterous ergatoid ♂.
Biology: M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 825.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 63.
Taxonomy: M. R. Smith, 1936. Ent. Soc. Amer. Ann. 29: 422, 425–426, ☿ ♀, apterous ergatoid ♂.

inexorata W. M. Wheeler. S. C. and Fla. to Tex.; Mexico; Costa Rica.
Ponera inexorata W. M. Wheeler, 1903. Psyche 10: 94. ☿ ♀.
Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 406.

oblongiceps M. R. Smith. Md., ?Ohio.
Ponera oblongiceps M. R. Smith, 1939. Ent. Soc. Wash. Proc. 41: 76–78. ☿ ♀, apterous ergatoid ♂.

opaciceps Mayr. S. C. to Fla. and west to Colo. and Ariz.; south to Brazil and Paraguay; also W. Indies.
Ponera opaciceps Mayr, 1887. Zool.-Bot. Gesell. Wien, Verh. 37: 536. ☿.
Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 125, 404.—M. R. Smith, 1927. Ent. News 38: 308–309.

trigona var. ***opacior*** Forel. Approximately southern two-thirds of U. S.; south to Chile and Argentina. Also W. Indies.
Ponera trigona var. ***opacior*** Forel, 1893. Ent. Soc. London, Trans., p. 363. ☿ ♀.
Biology: Dennis, 1938. Ent. Soc. Amer. Ann. 31: 272, 274, 277, 304.
Taxonomy: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 268, ☿ ♀ ♂.

Genus LEPTOGENYS Roger

Subgenus LEPTOGENYS Roger

Leptogenys Roger, 1861. Berlin. Ent. Ztschr. 5: 41.
Type: ***Leptogenys falcigera*** Roger. Desig. by Bingham, 1903.

Not known to occur in the Nearctic Region.

Subgenus LOBOPELTA Mayr

Lobopelta Mayr, 1862. Zool.-Bot. Gesell. Wien, Verh. 12: 733.
Type: ***Ponera diminuta*** F. Smith. Desig. by Bingham, 1903.
Revision: W. M. Wheeler, 1923. Amer. Mus. Novitates 90: 1–16.

Only two forms of this Tropicopolitan genus are known to occur in the United States. These occur in small colonies in the soil. The workers are said to forage singly and to feed largely, if not exclusively, on pill bugs. There is no typical female as with most ants, reproduction being carried on by a wingless, slightly modified worker form, with an enlarged gaster.

elongata elongata (Buckley). Ga., La., Tex.
?Ponera Texana Buckley, 1866. Ent. Soc. Phila. Proc. 6: 170. ☿.
Ponera elongata Buckley, 1866. Ent. Soc. Phila. Proc. 6: 172. ☿.
Lobopelta septentrionalis Mayr, 1866. Zool.-Bot. Gesell. Wien, Verh. 36: 438. ☿.
Biology: W. M. Wheeler, 1900. Biol. Bul. 2: 1–31.
Taxonomy: W. M. Wheeler, 1904. Biol. Bul. 6: 257–259, ☿, gynaecoid ♀, ♂.

elongata manni W. M. Wheeler. Fla.
Leptogenys (Lobopelta) elongata manni W. M. Wheeler, 1923. Amer. Mus. Novitates 90: 14, 15. ☿.

Genus ODONTOMACHUS Latreille

Odontomachus Latreille, 1804. Nouv. Dict. Hist. Nat. 24: 179.
Type: ***Formica haematoda*** Linnaeus. Monob.
Revision: M. R. Smith, 1939. N. Y. Ent. Soc. Jour. 47: 125–130.

haematoda clarus Roger. La., ?Ariz., Tex.; Mexico. *O. haematoda haematoda* (Linnaeus), 1758, is Pantropical.
Odontomachus clarus Roger, 1861. Berlin. Ent. Ztschr. 5: 26. ☿.
Odontomachus texana Buckley, 1867. Ent. Soc. Phila. Proc. 6: 335. ☿.
Biology: W. M. Wheeler, 1900. Biol. Bul. 2: 1–31.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 407, ☿ ♀ ♂.
Physiology: Haskins and Enzmann, 1938. N. Y. Acad. Sci. Ann. 37: 100–143.

haematoda coninodis W. M. Wheeler. Ariz. (Hunter and Miller Canyons, 5,000–7,000 ft.; Ramsay Canyon; all in Huachuca Mts.) . A depauperate desert mountain form.
Odontomachus haematoda coninodis W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 391. ☿ ♀.

haematoda desertorum W. M. Wheeler. Ariz., N. Mex.; Mexico.
Odontomachus haematoda desertorum W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 391. ☿.
Biology: Cole, 1934. Ent. Soc. Amer. Ann. 27: 394.

haematoda insularis Guérin. Fla., Ga.; Mexico, Cent. Amer., W. Indies, Cocos Island.

Odontomachus insularis Guérin, 1844. Iconogr. Règne Anim. Ins., v. 7, p. 423. ☿.
Biology: Haskins and Enzmann, 1938. N. Y. Acad. Sci. Ann. 37: 149–150.
Taxonomy: Roger, 1861. Berlin. Ent. Ztschr. 5: 26, ☿ ♂.

Subfamily LEPTALEINAE M. R. Smith, new subfamily

One of the smallest subfamilies of ants, containing only one genus and five forms. These are distributed mainly south of the 35th degree of latitude from North Carolina to California. Almost exclusively plant-inhabiting ants whose small colonies occur in culms of sedges and grasses, stems of plants, and twigs and branches of trees.

Genus LEPTALEA Erichson

Pseudomyrme Lund (Latreille ms.), 1831. Ann. Sci. Nat. Zool. 23: 137 (vernacular).
Type: ***Formica gracilis*** Fabricius. Desig. by W. M. Wheeler, 1911.
Leptalea Erichson (Klug ms.), 1839. Arch. f. Naturgesch. 5: 309.
Type: ***Formica gracilis*** Fabricius. Desig. by W. M. Wheeler, 1911.
Myrmex Guérin, 1844. Iconogr. Règne Anim. Ins., v. 7, p. 427. Preocc.
Type: ***Formica (Myrmex) perboscii*** Guérin. Monob.
Pseudomyrma Guérin, 1844. Iconogr. Régne Anim. Ins., v. 7, p. 427. Emend.
Leptalaea Spinola, 1851. Accad. Torino Mem. 13: 68. Emend.
Revision: Mayr, 1870. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 61: 406–413.

brunnea (F. Smith), n. comb. N. C. to Fla. west to Tex., and south to Cent. Amer.; also W. Indies.
Pseudomyrma brunnea F. Smith, 1877. Ent. Soc. London, Trans., p. 63. ☿.
Biology: Mitchell and Pierce, 1912. Ent. Soc. Wash. Proc. 14: 3.—W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 3.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 420–421, ☿ ♀.

elongata (Mayr), n. comb. Fla.; So. Amer., W. Indies, and Tres Marias Islands.
Pseudomyrma elongata Mayr, 1870. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 61: 408, 413. ☿.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 86.—W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 4.
Taxonomy: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 85–87, ☿ ♀ ♂.

flavidula (F. Smith), n. comb. S. C., Ga., Fla., Miss., La., Tex., Ariz.; Mexico, Cent. and So. Amer., W. Indies.
Pseudomyrma flavidula F. Smith, 1858. Cat. Hym. Brit. Mus., v. 6, p. 157. ☿.
Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 419.—Mitchell and Pierce, 1912. Ent. Soc. Wash. Proc. 14: 69.
Taxonomy: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 83–85, ☿ ♀ ♂.

gracilis mexicana (Roger), n. comb. South. Tex. to Cent. Amer. *Gracilis gracilis* (Fabricius) occurs in Cent. and So. Amer.
Pseudomyrma mexicana Roger, 1863. Berlin. Ent. Ztschr. 7: 173. ☿.
Biology: W. M. Wheeler, 1901. Soc. Ent. Belg. Ann. 45: 204.—Mitchell and Pierce, 1912. Ent. Soc. Wash. Proc. 14: 69.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 421, ☿ ♀.

pallida (F. Smith), n. comb. N. C. west to Calif. and south to So. Amer., and W. Indies. This and *flavidula* may prove to be the same species.
Pseudomyrma pallida F. Smith, 1855. Ent. Soc. London, Trans. 3: 159. ☿.
Biology: Mitchell and Pierce, 1912. Ent. Soc. Wash. Proc. 14: 69.—W. M. Wheeler. 1932. N. Y. Ent. Soc. Jour. 40: 4.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 419–420, ☿.

Unrecognized Forms of Genus Leptalea Erichson

lincecumii (Buckley), n. comb. Cent. Tex.
Ponera (Ectatoma* (!)) *Lincecumii Buckley, 1866. Ent. Soc. Phila. Proc. 6: 172. ☿.

Subfamily MYRMICINAE

This is the largest subfamily and the most diverse with respect to size, shape, structure, and habits. Moreover, it contains more forms inimical to man than any other group of ants. Nests are constructed in soil, wood, crevices of plants, debris, insect galls, buildings, ships, and in many other situations. The feeding habits are highly varied; and some forms have restricted diets, whereas others are general feeders.

Genus MYRMICA Latreille

Subgenus MYRMICA Latreille

Myrmica Latreille, 1804. Nouv. Dict. Hist. Nat. 24: 179.
Type: ***Formica rubra*** Linnaeus. Desig. by Latreille, 1810.
Revisions: W. M. Wheeler, 1907. Wis. Nat. Hist. Soc. Bul. 5: 73–83.—Weber, 1947. Ent. Soc. Amer. Ann. 40: 437–474.—Weber, 1948. Ent. Soc. Amer. Ann. 41: 267–308.

brevinodis brevinodis Emery. Labrador, Alaska, Canada, and northern half of U. S. Inquilines: *Leptothorax emersoni emersoni* Whlr., *L. emersoni glacialis* Whlr., *L. emersoni hirtipilis* Whlr.
Myrmica rubra brevinodis Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 312. ☿ ♂.
Myrmica rubra brevinodis var. ***canadensis*** W. M. Wheeler, 1907. Wis. Nat. Hist. Soc. Bul. 5: 76. ☿ ♀ ♂.
Myrmica rubra brevinodis var. ***subalpina*** W. M. Wheeler, 1907. Wis. Nat. Hist. Soc. Bul. 5: 77. ☿ ♀ ♂.
Myrmica brevinodis var. ***alaskensis*** W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 503. ☿.
Biology: W. M. Wheeler, 1907. Wis. Nat. Hist. Soc. Bul. 5: 73, 77–83.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 587.

brevinodis brevispinosa W. M. Wheeler. Calif., N. Mex., Idaho, Colo., N. Dak., Minn., Ill., Mich., Ont.
Myrmica rubra brevinodis var. ***brevispinosa*** W. M. Wheeler, 1907. Wis. Nat. Hist. Soc. Bul. 5: 74. ☿ ♀ ♂.
Myrmica rubra brevinodis var. ***decedens*** W. M. Wheeler, 1907. Wis. Nat. Hist. Soc. Bul. 5: 75. ☿ ♂.
Biology: Weber, 1942. Canad. Ent. 74: 62.—G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 241.

brevinodis discontinua Weber. Wash., Wyo., Colo., N. Dak., Newfoundland, N. S.
Myrmica brevinodis discontinua Weber, 1939. Lloydia 2: 150. ☿.

brevinodis kuschei W. M. Wheeler. Alaska (Ketchikan).
Myrmica brevinodis var. ***kuschei*** W. M. Wheeler, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 17. ☿ ♀.

brevinodis sulcinodoides Emery. Alaska, Newfoundland, Canada, north. half of U. S., Calif., Ariz.
Myrmica rubra brevinodis var. ***sulcinodoides*** Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 313. ☿.
Myrmica rubra brevinodis var. ***frigida*** Forel, 1902. Ent. Soc. London, Trans., p. 699. ☿.
Myrmica rubra brevinodis var. ***whymperi*** Forel, 1904. Soc. Ent. Belg. Ann. 48: 154. ♀.
Biology: W. M. Wheeler, 1915. Psyche 22: 206.—Cole, 1934. Psyche 41: 223.

laevinodis Nylander. Mass., Que. Introduced.
Myrmica laevinodis Nylander, 1846. Acta Soc. Fenn. 2: 927. ☿ ♀ ♂.
?***Myrmica incompleta*** Provancher, 1881. Nat. Canad. 12: 359. ☿ ♀ ♂.
Myrmica rubra Champlaini Forel, 1901. Naturhist. Mus. Hamburg Mitt. 18: 80. ☿. N. syn.
Myrmica rubra laevinodis var. ***bruesi*** W. M. Wheeler, 1906. Psyche 13: 38. ☿ ♀ ♂. N. syn.

Biology: W. M. Wheeler, 1908. Jour. Econ. Ent. 1: 337–339.—Sturtevant, 1931. Psyche 38: 75.
Morphology: Tulloch, 1936. Ent. Soc. Amer. Ann. 29: 81–84.
Economics: W. M. Wheeler, 1908. Jour. Econ. Ent. 1: 339.

lobicornis ***fracticornis*** Emery. Alaska, Canada, Newfoundland, and most of U. S. except perhaps the extreme south. states.
Myrmica rubra scabrinodis var. ***fracticornis*** Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 313. ☿.
Myrmica rubra scabrinodis var. ***detrinodis*** Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 316. ☿.
Myrmica sabuleti var. ***lobifrons*** Pergande, 1900. Wash. Acad. Sci. Proc. 2: 521. ☿.
Myrmica rubra scabrinodis var. ***glacialis*** Forel, 1904. Soc. Ent. Belg. Ann. 48: 154. ☿.
Biology: W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 587–588.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 288, 305.

punctiventris pinetorum W. M. Wheeler. Conn. to S. C., west to Okla. and Miss.
Myrmica punctiventris pinetorum W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 384. ☿ ♀.
Biology: Davis and Bequaert, 1922. Brooklyn Ent. Soc. Bul. 17: 10.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 90, 94.

punctiventris punctiventris Roger. Mass. south to Ga. and west to Iowa and Nebr.
Myrmica punctiventris Roger, 1863. Berlin. Ent. Ztschr. 7: 190. ☿.
Myrmica punctiventris var. ***isafahani*** Forel, 1922. Rev. Suisse Zool. 30: 92. ☿ ♀.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 383–384.—Sturtevant, 1925. Psyche 32: 314.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 283.

sabuleti americana Weber. Maine and Que. to Man. and Idaho south to Tenn. and Ariz. Apparently absent from extreme south. states.
Myrmica sabuleti americana Weber, 1939. Lloydia 2: 144. ☿ ♀ ♂.
Myrmica sabuleti trullicornis Buren, 1944. Iowa State Col. Jour. Sci. 18: 281. ☿ ♀.
Biology: W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 587.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 282–283.

sabuleti hamulata Weber. N. Mex. (Hayne's Canyon, 8,000 ft., Sacramento Mts.).
Myrmica sabuleti hamulata Weber, 1939. Lloydia 2: 146. ☿ ♀ ♂.

sabuleti nearctica Weber. Man., N. Dak., Colo., Mich.
Myrmica sabuleti nearctica Weber, 1939. Lloydia 2: 148. ☿ ♀ ♂.
Biology: G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 243.

scabrinodis mexicana W. M. Wheeler. Ariz., Utah; Mexico. *M. scabrinodis scabrinodis* Nylander occurs in Europe and Asia.
Myrmica mexicana W. M. Wheeler, 1914. N. Y. Ent. Soc. Jour. 22: 52. ☿ ♀ ♂.

schencki emeryana Forel. Newfoundland, N. S. and Ont. to Man. and Idaho, south to Ga. and Ariz.
Myrmica scabrinodis Schencki var. ***emeryana*** Forel, 1914. Deut. Ent. Ztschr., p. 617. ☿ ♀ ♂.
Myrmica scabrinodis schencki var. ***monticola*** W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc., 52: 505. ☿ ♂.
Myrmica schencki latifrons Starcke, 1927. Tijdschr. v. Ent. 70: 84. ☿.
Biology: W. M. Wheeler, 1915. Psyche 22: 206.—Talbot, 1945. Ent. Soc. Amer. Ann. 38: 365–372.

schencki spatulata M. R. Smith. Ill., Tenn., Miss.
Myrmica schencki var. ***spatulata*** M. R. Smith, 1930. Ent. Soc. Amer. Ann. 23: 566. ☿ ♀.
Biology: M. R. Smith, 1931. Ent. News 42: 21.

schencki tahoënsis W. M. Wheeler. Calif., Nev.
Myrmica scabrinodis schencki var. ***tahoënsis*** W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 504. ☿ ♀ ♂.

wheeleri Weber. Ariz. (on Mt. Lemmon, 8,000-9,150 ft., and at Stratton, 6,000-7,000 ft. in the Santa Catalina Mts.).
Myrmica wheeleri Weber, 1939. Lloydia 2: 150. ☿ ♀ ♂.

Unrecognized Forms of Myrmica Subgenus Myrmica Latreille

dimidiata Say. North America.
Myrmica dimidiata Say, 1836. Boston Jour. Nat. Hist. 1: 293. ♀ (?).

Note.—*Myrmica rubra neolaevinodis* Forel, 1901, Naturhist. Mus. Hamburg Mitt., ☿, was described by Forel along with the statement, "from New York with iris roots." As Forel had no definite proof that the iris from which the ants were collected had come from New York, this form is not listed along with the other Nearctic *Myrmica*.

Subgenus MANICA Jurine

Manica Jurine, 1807. Nouv. Méth. Class. Hym. Dipt., p. 276.
Type: ***Formica rubida*** Latreille. Desig. by W. M. Wheeler, 1911.
Aphaenogaster subg. ***Neomyrma*** Forel, 1914. Rev. Suisse Zool. 22: 275.
Type: (***Aphaenogaster (Neomyrma) calderoni*** Forel)=***Myrmica bradleyi*** W. M. Wheeler. Monob.
Myrmica subg. ***Oreomyrma*** W. M. Wheeler, 1914. Psyche 21: 118.
Type: ***Formica rubida*** Latreille. Orig. desig.
Revision: W. M. Wheeler, 1914. Psyche 21: 118–122.

Apparently restricted to western Canada and United States, no specimens having been recorded farther east than the Badlands of North Dakota (approximately 103rd to 104th degree of longitude). These ants commonly nest in creek or river bottoms in the soil or beneath stones where the soil is sandy, gravelly or silty. The colonies are often small.

aldrichi W. M. Wheeler. B. C., Wash., Ore., Idaho.
Myrmica (Oreomyrma) aldrichi W. M. Wheeler, 1914. Psyche 21: 119, 120. ☿.

bradleyi W. M. Wheeler. Calif., Nev. Host of *M.* (*M.*) *parasitica* Creight. but the exact relationship is not known.
Myrmica bradleyi W. M. Wheeler, 1909. N. Y. Ent. Soc. Jour. 17: 77. ☿.
Aphaenogaster (Neomyrma) Calderoni Forel, 1914. Rev. Suisse Zool. 22: 275. ☿.
Biology: Creighton, 1934. Psyche 41: 188–189.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 65.

hunteri W. M. Wheeler. Idaho, Mont.
Myrmica (Oreomyrma) hunteri W. M. Wheeler, 1914. Psyche 21: 119, 121. ☿.

mutica Emery. Alaska and Calif. to N. Mex., Wyo., N. Dak., and Alta. Apparently the most common and widely distributed form of the subgenus in No. Amer. Host of the inquilinous ant, *Symmyrmica chamberlini* Whlr.
Myrmica mutica Emery, 1895. Zool. Jahrb. Abt. f. System, 8: 311. ☿.
Biology: W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 6, 7.—W. M. Wheeler 1926. Ants, pp. 432–434.

parasitica Creighton. Calif. (summit of Polly Dome, approx. 8,600 ft., Yosemite Natl. Park). Host of *M.* (*M.*) *bradleyi* Whlr.; precise relationship between the two is not definitely known.
Myrmica (Manica) parasitica Creighton, 1934. Psyche 41: 185. ☿.
Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 66.

Genus POGONOMYRMEX Mayr

Subgenus POGONOMYRMEX Mayr

Pogonomyrmex Mayr, 1868. Soc. Nat. Modena Ann. 3: 169.
Type: ***Formica badia*** Latreille. Desig. by W. M. Wheeler, 1911.

Revisions: W. M. Wheeler, 1902. Amer. Nat. 36: 85–100.—W. M. Wheeler, 1902. Psyche 9: 387–393.—W. M. Wheeler, 1914. Psyche 21: 151–157.—Olsen, 1934. Harvard Univ., Mus. Compar. Zool. Bul. 77: 493–514.

Most forms in the United States occur west of the 95th degree of longitude, the group being especially common in the Southwest. A single form occurs in the coastal states from Mississippi to North Carolina.

apache W. M. Wheeler. Ariz., N. Mex., Tex.
Pogonomyrmex apache W. M. Wheeler, 1902. Psyche 9: 392. ☿.
Biology: W. M. Wheeler, 1926. Ants. p. 283.

badius (Latreille). Fla., Ala., Ga., Miss., S. C., N. C., N. J. (?). Our only known species east of the Mississippi River.
Formica badia Latreille, 1802. Hist. Nat. Fourmis, p. 238. ☿ ♀.
Myrmica transversa F. Smith, 1858. Cat. Hym. Brit. Mus., v. 6, p. 129. ☿.
Atta crudelis F. Smith, 1858. Cat. Hym. Brit. Mus., v. 6, p. 170. ☿ ♀.
?*Myrmica brevipennis* F. Smith, 1858. Cat. Hym. Brit. Mus. v. 6, p. 130. ♂.
Biology: W. M. Wheeler, 1926. Ants, pp. 131, 152, 201, 280, 283–285, 292.—Wray, 1938. Ent. Soc. Amer. Ann. 31: 196–200.
Taxonomy: Mayr, 1862. Zool.-Bot. Gesell. Wien, Verh. 12: 740, ♀ ♂.

barbatus barbatus (F. Smith). Tex.; Mexico.
Myrmica barbata F. Smith, 1858. Cat. Hym. Brit. Mus. v. 6, p. 130. ♀.
Biology: W. M. Wheeler, 1901. Soc. Ent. Belg. Ann. 45: 202.—W. M. Wheeler, 1901. Amer. Nat. 35: 723–724.—W. M. Wheeler, 1926. Ants, pp. 11, 85, 203, 222, 284, 291–292, 293.—Michener, 1948. N. Y. Ent. Soc. Jour. 56: 239–242.
Taxonomy: W. M. Wheeler, 1914. N. Y. Ent. Soc. Jour. 22: 51–52, ☿ ♀ ♂.

barbatus curvispinosus Cole. Ariz., Calif.
Pogonomyrmex barbatus curvispinosus Cole, 1936. Ent. News 47: 120. ☿.
Biology: Cole, 1937. Ent. News 48: 134.

barbatus rugosus Emery. Calif., Ariz., N. Mex., Utah, Kans.
Pogonomyrmex barbatus rugosus Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 309. ☿ ♂.
Biology: W. M. Wheeler, 1917. Psyche 24: 178.—W. M. Wheeler, 1926. Ants, pp. 284, 290.

barbatus var. **fuscatus** Emery. Ariz., N. Mex., Tex., Utah, Colo.; Mexico.
Pogonomyrmex barbatus var. *fuscatus* Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 309. ☿.
Biology: Cole, 1942. Amer. Midland Nat. 28: 367.
Economics: Lindquist, 1942. Jour. Econ. Ent. 35: 850–852.

barbatus var. **marfensis** W. M. Wheeler. N. Mex., Tex., Utah.
Pogonomyrmex barbatus var. *marfensis* W. M. Wheeler, 1902. Amer. Nat. 36: 98. ☿.
Biology: W. M. Wheeler, 1902. Psyche 9: 393.—W. M. Wheeler, 1926. Ants, p. 284.
Taxonomy: W. M. Wheeler, 1902. Psyche 9: 391, 393. ☿ ♀ ♂.

barbatus var. **molefaciens** (Buckley). Ariz., N. Mex., Colo., Okla., Tex., Kans. La., Utah; Mexico.
Myrmica (Atta) molefaciens Buckley, 1860. Acad. Nat. Sci. Phila. Proc. 12: 445. ☿ ♀.
Biology: McCook, 1879. The Natural History of the Agricultural Ant of Texas, pp. 1–311.—W. M. Wheeler, 1926. Ants, pp. 179, 197, 202–203, 264, 284, 286–288, 290, 292–293.
Taxonomy: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 308, ☿ ♀ ♂.
Economics: Hunter, 1921. U. S. Dept. Agr. Bur. Ent. Cir. 148: 4–7.

barbatus var. **nigrescens** W. M. Wheeler. Calif. to Tex.
Pogonomyrmex barbatus var. *nigrescens* W. M. Wheeler, 1902. Psyche 9: 389, 391. ☿.
Biology: W. M. Wheeler, 1926. Ants, p. 284.

californicus barnesi M. R. Smith. Ariz. (20 miles northwest of Phoenix in Maricopa County).
Pogonomyrmex californicus barnesi M. R. Smith, 1929. Ent. Soc. Amer. Ann. 22: 546. ☿.

californicus californicus (Buckley). Nev., Utah, Calif., Ariz., N. Mex., Tex.; Mexico.
Myrmica californica Buckley, 1867. Ent. Soc. Phila. Proc. 6: 336. ☿.
Biology: W. M. Wheeler, 1926. Ants, pp. 188–190, 200, 201, 284–286, 290, 292.—Michener, 1942. Sci. Monthly 55: 248–258.
Morphology: Shapley, 1921. Nat. Acad. Sci. Proc. 6: 687–690.—Tulloch, 1930. Psyche 37: 61–70.
Economics: Essig, 1926. Ins. of West. No. Amer., p. 861.

californicus longinodis Emery. Calif., N. Mex., Tex.
Pogonomyrmex californicus longinodis Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 311. ☿.

californicus maricopa W. M. Wheeler. Ariz., Calif., N. Mex., ?Tex.; Mexico.
Pogonomyrmex californicus maricopa W. M. Wheeler, 1914. Psyche 21: 155. ☿ ♀.
Biology: Cole, 1934. Ent. Soc. Amer. Ann. 27: 399.

californicus var. **estebanius** Pergande. Ariz., Calif.; Mexico.
Pogonomyrmex badius var. *estebanius* Pergande, 1893. Calif. Acad. Sci. Proc. 4: 33. ☿ ♀.
Biology: Cole, 1934. Ent. Soc. Amer. Ann. 27: 399.

californicus var. **hindleyi** Forel. Ariz., Calif., N. Mex.
Pogonomyrmex californicus var. *Hindleyi* Forel, 1914. Soc. Vaud. Sci. Nat. Bul. 50: 270. ☿.

comanche W. M. Wheeler. Ariz., N. Mex., Tex., Kans.
Pogonomyrmex occidentalis comanche W. M. Wheeler 1902. Psyche 9: 392. ☿.
Biology: W. M. Wheeler, 1926. Ants, pp. 201, 284–285, 292.—Strandtmann, 1942. Ent. Soc. Amer. Ann. 38: 140.

desertorum W. M. Wheeler. Calif. to Okla. and Tex.
Pogonomyrmex desertorum W. M. Wheeler, 1902. Psyche 9: 387, 390. ☿.
Biology: W. M. Wheeler, 1926. Ants, p. 283.—Cole, 1934. Ent. Soc. Amer. Ann. 27: 399.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 64.

desertorum var. **ferrugineus** Olsen. Ariz. (Tucson and College Peak).
Pogonomyrmex desertorum var. *ferrugineus* Olsen, 1934. Harvard Univ., Mus. Compar. Zool. Bul. 77: 496. ☿.

desertorum var. **tenuispina** Forel. "U. S."
Pogonomyrmex desertorum var. *tenuispina* Forel, 1914. Soc. Vaud. Sci. Nat. Bul. 50: 269. ☿.

huachucanus W. M. Wheeler. Ariz., Calif.
Pogonomyrmex huachucanus W. M. Wheeler, 1914. Psyche 21: 151. ☿.
Biology: Cole, 1934. Ent. Soc. Amer. Ann. 27: 400.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 64–65.

occidentalis occidentalis (Cresson). B. C. and Wash. to N. Dak. and south to Ariz. and Okla. The most common and widely distributed form of the subgenus. Its nests are a conspicuous feature of the Great Basin and Great Plains Areas.
Myrmica occidentalis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 426. ☿ ♀.
Myrmica seminigra Cresson, 1865. Ent. Soc. Phila. Proc. 4: 427. ♂.
Pogonomyrmex opaciceps Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 971. ☿.
Pogonomyrmex occidentalis ruthveni Gaige, 1914. Biol. Soc. Wash. Proc. 27: 93. ☿ ♀ ♂.
Biology: McCook, 1882. The Honey Ants of the Garden of the Gods, and the Occident Ants of the American Plains, pp. 123–160.—W. M. Wheeler, 1926. Ants, pp. 145, 200, 202–205, 222, 283–284, 290, 291, 426.—Cole, 1933. Ohio Jour. Sci. 32: 533–538.—Cole, 1934. Canad. Ent. 66: 193–198.
Economics: Headlee and Dean, 1908. Kans. Agr. Expt. Sta. Bul. 154: 165–180.—Herrick, 1914. Insects Injurious to the Household and Annoying to Man, pp. 172–173.

occidentalis owyheei Cole. Idaho (Indian Cove near Hammett).
Pogonomyrmex occidentalis owyheei Cole, 1938. Amer. Midland Nat. 19: 240. ☿ ♀.

occidentalis var. **utahensis** Olsen. Utah (Zion Natl. Park).
Pogonomyrmex occidentalis var. ***utahensis*** Olsen, 1934. Harvard Univ., Mus. Compar. Zool. Bul. 77: 498, 509. ☿ ♀ ♂.
Biology: Cole, 1942. Amer. Midland Nat. 28: 366.

salinus Olsen. Calif. (near Soda Springs, Bridgeport).
Pogonomyrmex salinus Olsen, 1934. Harvard Univ., Mus. Compar. Zool. Bul. 77: 498, 510. ☿.

sancti-hyacinthi W. M. Wheeler. Kans., Tex., N. Mex., Ariz.
Pogonomyrmex sancti-hyacinthi W. M. Wheeler, 1902. Psyche 9: 388, 391. ☿.
Biology: W. M. Wheeler, 1926. Ants, p. 283.

similis Olsen. Ariz. (Oracle on the north slope of Mt. Lemmon, 4,500 ft.).
Pogonomyrmex similis Olsen, 1934. Harvard Univ., Mus. Compar. Zool. Bul. 77: 497, 512. ☿.

subdentatus Mayr. Ariz., Calif., N. Mex. Mayr's citation of this form from Conn. is an error.
Pogonomyrmex subdentatus Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 971. ☿.
Biology: Cole, 1934. Ent. Soc. Amer. Ann. 27: 399.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 65.

subnitidus Emery. Calif.
Pogonomyrmex occidentalis var. ***subnitidus*** Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 310. ☿.
Biology: Cole, 1934. Ent. Soc. Amer. Ann. 27: 399.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 65.

Subgenus EPHEBOMYRMEX W. M. Wheeler

Pogonomyrmex subg. ***Ephebomyrmex*** W. M. Wheeler, 1902. Psyche 9: 390, Type: ***Pogonomyrmex naegelii*** Forel. Desig. by W. M. Wheeler. 1911.
Revisions: W. M. Wheeler, 1902. Amer. Nat. 36: 85–100.—W. M. Wheeler, 1902. Psyche 9: 390.—Olsen, 1934. Harvard Univ., Mus. Compar. Zool. Bul. 77: 494–495, 513–514.

imberbiculus W. M. Wheeler. Okla., Tex., N. Mex.
Pogonomyrmex imberbiculus W. M. Wheeler, 1902. Amer. Nat. 36: 87, 97. ☿.
Biology: W. M. Wheeler, 1917. Psyche 24: 178–179.—W. M. Wheeler, 1926. Ants. pp. 283–284, 290, 292.

pima W. M. Wheeler. Ariz.
Pogonomyrmex (Ephebomyrmex) pima W. M. Wheeler, 1909. N. Y. Ent. Soc. Jour. 17: 79. ☿.
Biology: W. M. Wheeler, 1926. Ants, p. 283.—Cole, 1934. Ent. Soc. Amer. Ann. 27: 399–400.

townsendi W. M. Wheeler. Ariz.; Mexico.
Pogonomyrmex (Ephebomyrmex) townsendi W. M. Wheeler, 1909. N. Y. Ent. Soc. Jour. 17: 80. ☿.
Biology: W. M. Wheeler, 1926. Ants, p. 283.

Genus STENAMMA Westwood

Stenamma Westwood, 1840. Introduct. Mod. Class. Ins. Sup. 2: 83.
Type: ***Stenamma westwoodii*** Westwood. Monob.
Asemorhoptrum Mayr, 1861. Die Europäischen Formiciden, p. 76.
Type: (***Myrmica lippula*** Nylander)=*Stenamma westwoodii* Westwood. Monob.
Revisions: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 297–301.—Forel, 1901. Soc. Ent. Belg. Ann. 45: 347–348.—W. M. Wheeler, 1903. Psyche 10: 164–168.

brevicorne brevicorne (Mayr). Ont. and Que. to N. C. and west to Ill., Iowa and Minn.

Aphaenogaster brevicornis Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 443, 447–448. ☿ ♀.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 373, 382.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 585.
Taxonomy: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 299, ☿ ♀ ♂.

brevicorne diecki Emery. B. C., Calif., N. Dak., Ill., N. J., Conn., Pa., N. Y., Que., Wash.
Stenamma westwoodi diecki Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 300. ☿ ♀.
Biology: G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 244.

brevicorne heathi W. M. Wheeler. Calif. (King's River Canyon).
Stenamma brevicorne heathi W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 410. ☿.
Biology: Mallis, 1941. South. Calif. Acad. Sci. Bull. 40: 66.
Taxonomy: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 520, ☿.

brevicorne impar Forel. Mass., Pa., Va.
Stenamma brevicorne impar Forel, 1901. Soc. Ent. Belg. Ann. 45: 347. ☿ ♀.

brevicorne impressum Emery. Maine to N. C. and west to Iowa and Minn.
Stenamma westwoodi diecki var. ***impressum*** Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 301. ☿.
Biology: Dennis, 1938. Ent. Soc. Amer. Ann. 31: 284, 304.

brevicorne schmittii W. M. Wheeler. Pa. and Md. to Ill. and Wis.
Stenamma brevicorne schmittii W. M. Wheeler, 1903. Psyche 10: 167. ☿.
Biology: L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 93.

brevicorne sequoiarum W. M. Wheeler. Calif. (Muir Woods on Mt. Tamalpais).
Stenamma brevicorne sequoiarum W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 520. ☿ ♀.
Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 66.

foveolocephalum M. R. Smith. Miss. (2 miles south of Ackerman).
Stenamma fovolocephala (!) M. R. Smith, 1930. Ent. Soc. Amer. Ann. 23: 564. ☿.
Biology: M. R. Smith, 1931. Ent. News 42: 17.

nearcticum Mayr. B. C., Wash., Oreg., Calif.
Stenamma neoarcticum (!) Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 454. ♀ ♂ (☿ misdet.).
Taxonomy: Mayr, 1887. Zool.-Bot. Gesell. Wien, Verh. 37: 628, ♀ ♂.—Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 299–300, ☿ ♀.

Genus APHAENOGASTER Mayr

Subgenus APHAENOGASTER Mayr

Aphaenogaster Mayr, 1853. Zool.-Bot. Gesell. Wien, Verh. 3: 107.
Type: ***Aphaenogaster sardous*** Mayr. Desig. by Bingham, 1903.

Not known to occur in the Nearctic Region.

Subgenus ATTOMYRMA Emery

Aphaenogaster subg. ***Attomyrma*** Emery, 1915. R. Accad. delle Sci. dell'Ist. Bologna. Mem. (n. s.) 19: 70.
Type: ***Formica subterranea*** Latreille. Orig. desig.
Revisions: Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 443–446.—Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 301–306.—G. C. and E. W. Wheeler, 1934. Psyche 41: 6–12 (*treatae* and forms).

boulderensis boulderensis M. R. Smith. Ariz. (Horseshoe Island in Mead Lake of Boulder Dam).
Aphaenogaster (Attomyrma) boulderensis M. R. Smith, 1941. Great Basin Nat. 2: 118, 120. ☿.

boulderensis smithi R. E. Gregg. N. Mex. (Carrizozo).
Aphaenogaster (*Attomyrma*) *boulderensis smithi* R. E. Gregg, 1949. Ent. Soc. Wash. Proc. 51: 171. ☿.

floridana M. R. Smith. Fla., Ga.
Aphaenogaster (*Attomyrma*) *floridana* M. R. Smith, 1941. Great Basin Nat. 2: 118. ☿.

fulva aquia (Buckley). Mass. to Fla. and west to Nebr. Temporary host of *A. mariae* Forel and *A. tennesseensis* (Mayr).
Myrmica (*Monomarium* (!)) *aquia* Buckley, 1867. Ent. Soc. Phila. Proc. 6: 341. ☿ ♀.
Biology: W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 586.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 286, 305.—Headley, 1949. Ent. Soc. Amer. Ann. 42: 265–272.
Taxonomy: Buren, 1944. Iowa State Col. Jour. Sci. 18: 284, ☿.

fulva aquia var. **picea** (Emery). Ont. to S. C. and west to Wis. and Iowa. Temporary host of *A. tennesseensis* (Mayr).
Stenamma (*Aphaenogaster*) *fulvum aquia* var. *piceum* Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 305. ☿ ♀ ♂.
Aphaenogaster texana punctithorax Cole, 1938. Amer. Midland Nat. 19: 239. ☿.
Biology: W. M. Wheeler, 1926. Ants, pp. 195, 282, 447–448, 453.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 286–287, 305.—L. G. Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 94.

fulva aquia var. **pusilla** (Emery.) D. C.
Stenamma (*Aphaenogaster*) *fulvum aquia* var. *pusillum* Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 306. ☿.

fulva fulva Roger. Vt. to Ga. and west to Iowa, Kans., and La. Temporary host of *A. tennesseensis* (Mayr) and possibly of *A. mariae* Forel.
Aphaenogaster fulva Roger, 1863. Berlin. Ent. Ztschr. 7: 190. ☿.
Aphaenogaster fulva var. *rubida* J. Enzmann, 1947. N. Y. Ent. Soc. Jour. 55: 147. ☿.
Biology: W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 586.—W. M. Wheeler, 1926. Ants, pp. 81, 83, 206, 448, 453.

fulva rudis (Emery), n. status. N. C., Va., D. C., Tenn., Ohio, Ill., ?C 1. Temporary host of *A. tennesseensis* (Mayr).
Stenamma (*Aphaenogaster*) *fulva aquia* var. *rude* Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 305. ☿ ♀.
Biology: L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 90, 94.

huachucana Creighton. Ariz. (Ramsey Canyon, Huachuca Mts., 7,000 ft.).
Aphaenogaster (*Attomyrma*) *huachucana* Creighton, 1934. Psyche 41: 189. ☿.

lamellidens Mayr. N. Y. to Fla. and west to Ill., Mo., and La.
Aphaenogaster lamellidens Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 443, 445. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 383.—M. R. Smith, 1918. Ent. News 29: 21.—M. R. Smith, 1928. Ent. News 39: 246.
Taxonomy: Cole, 1940. Amer. Midland Nat. 24: 50, 52, ☿.

lamellidens var. **nigripes** M. R. Smith. N. C. and Ga. to Ill. and La.
Aphaenogaster lamellidens var. *nigripes* M. R. Smith, 1923. Ent. News 34: 308. ☿.
Biology: M. R. Smith, 1924. Ent. News 35: 51.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 285, 304.
Taxonomy: Cole, 1940. Amer. Midland Nat. 25: 50, 52. ☿.

mariae Forel. N. Y. to Fla. and west to Iowa and Kans. Temporary parasite of *A. fulva aquia* (Buckl.).
Aphaenogaster Mariae Forel, 1886. Soc. Ent. Belg. Bul. (C. R.) 30: 41. ☿.
Biology: W. M. Wheeler, 1926. Ants, pp. 151, 448.—L. G. Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 93.
Taxonomy: W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 585. ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 284, ☿.

mutica Pergande. ?Tex., Mexico (Lower Calif.).
Aphaenogaster mutica Pergande, 1895. Calif. Acad. Sci. Proc. 5: 891. ☿.

patruelis bakeri (W. M. Wheeler). Calif. (Catalina Isl.). *A. patruelis patruelis* Forel occurs in Mexico.
Stenamma (Aphaenogaster) patruelis bakeri W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 270. ☿.

patruelis willowsi W. M. Wheeler. Calif. (San Nicolas Isl.).
Aphaenogaster patruelis willowsi W. M. Wheeler, 1933. Calif. Acad. Sci. Proc. 21: 64. ☿.
Taxonomy: W. M. Wheeler, 1934. Pan-Pacific Ent. 10: 133, ☿.

subterranea borealis W. M. Wheeler. B. C., Wash. *A. subterranea subterranea* (Latreille) occurs in the Mediterranean Region and Cent. Europe.
Aphaenogaster subterranea borealis W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 412. ☿.

subterranea occidentalis (Emery.) B. C., Wash., Oreg., Idaho, Mont., Calif., Ariz., Utah, Colo.
Stenamma (Aphaenogaster) subterraneum occidentale Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 301. ☿.
Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 515.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 67.
Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 363, ☿.

subterranea valida W. M. Wheeler. Colo. (Cheyenne Canyon, near Colorado Springs).
Aphaenogaster subterranea valida W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 411. ☿ ♀ ♂,
Biology: R. E. Gregg, 1947. Colo. Univ., Studies (ser. D) 2: 393.

subterranea valida var. **manni** W. M. Wheeler. Wash. (Pullman).
Aphaenogaster subterranea valida var. *manni* W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 516. ☿.

tennesseensis (Mayr). Ont. to Ga. and west to Minn., Nebr., and Okla. Temporary parasite of *A. (Attomyrma) fulva fulva* Roger, *fulva rudis* Emery, *fulva aquia* (Buckley), and *fulva aquia* var. *picea* Emery.
Atta Tenneseensis (!) Mayr, 1862. Zool.-Bot. Gesell. Wien. Verh. 12: 743. ☿.
Atta laevis Mayr, 1862. Zool.-Bot. Gesell. Wien, Verh. 12: 743. ♀.
Myrmica subruba Buckley, 1867. Ent. Soc. Phila. Proc. 6: 336. ☿ "♀"=♂.
Biology: W. M. Wheeler, 1926. Ants, pp. 114, 447–448,450—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 287–288.—L. G. Jr. and R. G. Wesson, 1940. Amer. Midland Nat. 24: 90, 94.
Taxonomy: W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 585, 586 ☿ ♀.

tennesseensis var. **ecalcarata** (Emery.) N. H.
Stenamma (Aphaenogaster) tenesseense (!) var. *ecalcaratum* Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 301. ☿.

texana flemingi M. R. Smith. Miss. (State College).
Aphaenogaster texana flemingi M. R. Smith, 1928. Ent. News 39: 275. ☿.

texana macrospina M. R. Smith. Fla., Ga., Miss., S. C.
Aphaenogaster texana macrospina M. R. Smith, 1934. Ent. Soc. Amer. Ann. 27: 386. ☿.

texana nana W. M. Wheeler. Fla. (Gainesville).
Aphaenogaster (Attomyrma) texana nana W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 6. ☿.

texana texana (Emery). Kans., Tex.
Stenamma (Aphaenogaster) fulvum aquia var. *texanum* Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 306. ☿.
Taxonomy: W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 412–413, ☿ ♀ ♂.

texana var. **carolinensis** W. M. Wheeler. N. C., S. C., Ga., Miss., Tenn., Ind., Mich., Mo., Ark., Okla., Tex.
Aphaenogaster texana var. *carolinensis* W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 414. ☿ ♀.
Biology: Dennis, 1938. Ent. Soc. Amer. Ann. 31: 287, 305.
Taxonomy: M. R. Smith, 1931. Ent. News 42: 17, ☿.

texana var. **furvescens** W. M. Wheeler. Fla., S. C., Tenn., Miss., Ariz.
Aphaenogaster texana var. *furvescens* W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 413. ☿ ♀.
Biology: W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 5.
Taxonomy: Creighton, 1934. Psyche 41: 192, ☿.

texana var. **miamiana** W. M. Wheeler. Fla. (Miami).
Aphaenogaster (*Attomyrma*) *texana* var. *miamiana* W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 5. ☿ ♀ ♂.

texana var. **silvestrii** Menozzi. Fla. (Gainesville).
Aphaenogaster (*Deromyrma*) *Silvestrii* Menozzi, 1929. Portici Lab. Zool. Gen. e Agr. Bol. 22: 282. ☿ ♀.
Taxonomy: W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 5, ☿ ♀.

treatae ashmeadi (Emery), n. status. Fla., Ga.
Stenamma (*Aphaenogaster*) *treatae* var. *ashmeadi* Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 302. ☿.
Taxonomy: W. M. Wheeler, 1919. Psyche 26: 50, ☿.

treatae harnedi W. M. Wheeler. Miss., Tenn., Mo., Tex.
Aphaenogaster treatae harnedi W. M. Wheeler, 1919. Psyche 26: 50. ☿.
Taxonomy: M. R. Smith, 1924. Ent. News 35: 50, ☿.

treatae pluteicornis G. C. and E. W. Wheeler. Ohio, Okla., Tex.
Aphaenogaster treatae pluteicornis G. C. and E. W. Wheeler, 1934. Psyche 41: 7, 12. ☿ ♀ ♂.

treatae pluteicornis var. **alabamensis** G. C. and E. W. Wheeler. Ala. (Lookout Mt., Fort Payne).
Aphaenogaster treatae pluteicornis var. *alabamensis* G. C. and E. W. Wheeler, 1934. Psyche 41: 10. ♀ ☿.

treatae pluteicornis var. **oklahomensis** G. C. and E. W. Wheeler. Okla. (Poteau).
Aphaenogaster treatae pluteicornis var. *oklahomensis* G. C. and E. W. Wheeler, 1934. Psyche 41: 10,12. ☿ ♀.

treatae treatae Forel. Ont. south to Ga. and west to Nebr. and Tex.
Aphaenogaster treatae Forel, 1886. Soc. Ent. Belg. Bul. (C. R.) 30: 40, 41. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 383.—W. M. Wheeler, 1926. Ants, pp. 151, 200.
Taxonomy: W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 585, ☿ ♀.

treatae wheeleri Mann. Mass. (Naushon Isl. opposite Woods Hole).
Aphaenogaster treatae wheeleri Mann, 1915. Psyche 22: 51. ☿ ♀.
Taxonomy: W. M. Wheeler, 1919. Psyche 26: 50, ☿ ♀.

uinta W. M. Wheeler. Idaho, Utah.
Aphaenogaster uinta W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 517. ☿ ♀ ♂.
Biology: Cole, 1934. Psyche 41: 223.
Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 363, 364. ☿.

Unrecognized Forms of Aphaenogaster Subgenus Attomyrma Emery

opposita (Say). North America.
Myrmica opposita Say, 1836. Boston Jour. Nat. Hist. 1: 292. ☿ ♂.

Genus NOVOMESSOR Emery

Novomessor Emery, 1915. Accad. delle Sci. dell'Ist. Bologna, Rend. (n. s.) 19: 73.
Type: *Aphaenogaster* (*Ischnomyrmex*) *cockerelli* André. Orig. desig.
Revision: W. M. Wheeler and W. S. Creighton, 1934. Amer. Acad. Arts Sci. Proc. 69: 343–354.

Occurs in arid plateaus, approximately 2,500 to 5,000 feet high, mainly in a narrow zone extending from Del Rio, Tex., to Gilabend, Ariz. At least one form, *cockerelli*, occurs in Mexico.

albisetosus (Mayr). Ariz., N. Mex., Tex.
Aphaenogaster albisetosa Mayr, 1886. Zool.-Bot. Gesell, Wien, Verh. 36: 443, 446. ☿.
Novomessor cockerelli var. *minor* J. Enzmann, 1947. N. Y. Ent. Soc. Jour. 55: 148. ☿.
Biology: W. M. Wheeler, 1926. Ants, pp. 280–282.—Cole, 1934. Ent. Soc. Amer. Ann. 27: 398.

cockerelli (André). Ariz., Calif., N. Mex., Tex.; Mexico.
Aphaenogaster (Ischnomyrmex) Cockerelli André, 1893. Rev. Ent. 12: 150. ☿.
Aphaenogaster sonorae Pergande, 1893. Calif. Acad. Sci. Proc. 4: 34. ☿.
Biology: W. M. Wheeler, 1926. Ants, pp. 69, 178, 201, 280–282.—Cole, 1934. Ent. Soc. Amer. Ann. 27: 397–398.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 67.

Genus VEROMESSOR Forel

Novomessor subg. *Veromessor* Forel, 1917. Soc. Vaud. des Sci. Nat. Bul. 51: 235.
Type: *Aphaenogaster andrei* Mayr. Desig. by Emery, 1921.
Revision: W. M. Wheeler and W. S. Creighton, 1934. Amer. Acad. Arts and Sci. Proc. 69: 354–387.

This genus extends from Mexico into southwestern and western United States.

andrei andrei (Mayr). Ariz., Calif., Nev., ?Oreg.; Mexico.
Aphaenogaster Andrei Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 443, 448. ☿.
Biology: W. M. Wheeler, 1926. Ants, p. 280.—Cole, 1934.Ent. Soc. Amer. Ann. 27: 398.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 67.
Taxonomy: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 306–307, ☿ ♀.—Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 8, 24, ☿.
Economics: Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 24.

andrei castaneus W. M. Wheeler and W. S. Creighton. Calif.
Veromessor andrei castaneus W. M. Wheeler and W. S. Creighton, 1934. Amer. Acad. Arts and Sci. Proc. 69: 361, 365. ☿.

andrei flavus W. M. Wheeler and W. S. Creighton. Calif. (Jacumba).
Veromessor andrei flavus W. M. Wheeler and W. S. Creighton, 1934. Amer. Acad. Arts and Sci. Proc. 69: 361, 366. ☿.

chamberlini (W. M. Wheeler). Calif. (Santa Cruz Isl.).
Messor chamberlini W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 410. ☿.

lobognathus (Andrews). Colo. (Glenwood Springs).
Messor lobognathus Andrews, 1916. Psyche 23: 82. ☿.

pergandei (Mayr). Ariz., Calif.; Mexico.
Aphaenogaster Pergandei Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 444, 448. ☿.
Biology: W. M. Wheeler, 1926. Ants, pp. 16, 280.—Cole, 1937. Ent. News 48: 101.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 68.
Taxonomy: Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 8, 25, ☿.

stoddardi (Emery). Calif. (San Jacinto in Riverside Co.); Mexico (Lower Calif.).
Stenamma (Messor) stoddardi Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 307. ☿.
Biology: W. M. Wheeler, 1926. Ants, p. 280.

Genus PHEIDOLE Westwood

Subgenus PHEIDOLE Westwood

Pheidole Westwood, 1841. Ann. Mag. Nat. Hist. 6: 87.
Type: *Atta providens* Sykes=?(*Pheidole indica* Mayr). Monob.
Oecophthora Heer, 1852. Naturf. Gesell. in Zürich, Neujahrsbl. 54: 11, 15.
Type: (*Oecophthora pusilla* Heer)=[*Formica*] *megacephala* (Fabricius). Monob.

Leptomyrma Motschulsky, 1863. Soc. Imp. Nat. Moscou Bul. 36: 17.
Type: ***Leptomyrma gracilipes*** Motschulsky. Monob.
Allopheidole Forel, 1912. Soc. Ent. Belg. Mem. 19: 237. N. syn.
Type: ***Pheidole kingi*** André. Desig. by W. M. Wheeler, 1913.
Cardiopheidole W. M. Wheeler, 1914. N. Y. Ent. Soc. Jour. 22: 48–51. N. syn.
Type: ***Pheidole vasliti*** Pergande. Orig. desig.
Macropheidole Emery, 1915. Soc. Ent. France Bul., p. 190. N. syn.
Type: ***Pheidole fimbriata*** Roger. Monob. and orig. desig.
evisions: Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 979–989.—Mayr, 1887. Zool.-Bot. Gesell. Wien, Verh. 37: 582–608.—Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 288–297.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 431–478.

anastasii Emery. (In flavens group.) Fla., N. C., Que.; Mexico, Cent. Amer. Introduced into U. S.
Pheidole Anastasii Emery, 1896. Soc. Ent. Ital. Bol. 28: 76. ☿ ♀.
Biology: W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 6.—M. R. Smith, 1933. Fla. Ent. 17: 23.
Taxonomy: Forel, 1901. Naturhist. Mus. Hamburg Mitt. 18: 78. ♀.

anastasii var. **cellarum** Forel. (In flavens group.) Mass., N. J., Md., D. C., Va., Ill., Calif.; Cent. Amer.
Pheidole Anastasii var. ***cellarum*** Forel, 1908. Soc. Vaud. des. Sci. Nat. Bul. 44: 55. ☿ ♀.
Biology: Bondroit, 1911. Soc. Ent. Belg. Ann. 55: 14.—Donisthorpe, 1927. British Ants, ed. 2, p. 390.
Taxonomy: Forel, 1915. Fauna Ins. Helvet. Hym., pp. 33, 34, ☿ ♀.

barbata W. M. Wheeler. (In subarmata group.) Calif. (Needles).
Pheidole barbata W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 448. ☿ ♀.
Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 68.

bicarinata Mayr. (In subarmata group.) Mich. and Tenn. to Nebr. and S. Dak.
Pheidole bicarinata Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 982, 989. ♀.
Biology: Talbot, 1934. Ecology 15: 418, 420, 422.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 286.

californica californica Mayr. (In subarmata group.) Calif., Idaho, Utah.
Pheidole californica Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 981, 984, 987. ☿ ♀.
Biology: Cole, 1934. Ent. Soc. Amer. Ann. 27: 395–397.—Mallis, 1941. South Calif. Acad. Sci. Bul. 40: 68–69.
Taxonomy: W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 406–407, ☿ ♀ ♀.

alifornica micula W. M. Wheeler. (In subarmata group.) Ariz. (Huachuca Mts.).
Pheidole californica micula W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 408. ☿ ♀.
alifornica oregonica Emery. (In subarmata group.) Ariz., Calif., Utah, Idaho, Oreg., Wash.
Pheidole oregonica Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 288, 291. ☿ ♀.
Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 69.—Cole, 1942. Amer. Midland Nat. 28: 362.
Taxonomy: W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 407–408, ☿ ♀ ♀.

californica pyramidensis Emery. (In subarmata group.) Nev. (Pyramid Lake).
Pheidole californica nevadensis W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 408. ☿ ♀ ♀. Preocc.
Pheidole californica pyramidensis Emery, 1922. *In* Wytsman, Gen. Ins., fasc. 174 b, p. 105. N. name.

californica var. **hagermani** Cole. (In subarmata group.) Idaho (Hagerman). This may prove to be a synonym of *oregonica*.
Pheidole californica var. ***hagermani*** Cole, 1936. Canad. Ent. 68: 35. ☿ ♀.

californica var. **incenata** W. M. Wheeler. (In subarmata group.) Calif. (Palo Alto).

Pheidole californica var. ***incenata*** W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 407. ☿ ♀.

californica var. **satura** W. M. Wheeler. (In subarmata group.) Calif.
Pheidole californica var. ***satura*** W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 407. ☿ ♀.

californica var. **shoshoni** Cole. (In subarmata group.) Idaho (Twin Falls).
Pheidole californica var. ***shoshoni*** Cole, 1933. Ent. Soc. Amer. Ann. 26: 618. ☿ ♀.

casta W. M. Wheeler. (In subarmata group.) Tex. (Langtry).
Pheidole casta W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 454. ☿ ♀.

ceres W. M. Wheeler. (In subarmata group.) Ariz., N. Mex., Tex., Colo. Host of the permanently parasitic ant, *Sympheidole elecebra* Whlr. Parasitized colonies have been found to contain only soldiers and workers of *ceres*. *Ceres* nests under stones in rather dry, sunny localities at altitudes of 5,000–9,000 ft. A seed-storing form.
Pheidole ceres W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 10. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1919. Amer. Philos. Soc. Proc. 58: 25.—W. M. Wheeler, 1923. Social Life among the Insects, p. 219.—W. M. Wheeler, 1926. Ants, pp. 279, 497.

cockerelli W. M. Wheeler. (In fallax group.) Ariz., N. Mex., Okla.
Pheidole cockerelli W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 464. ☿ ♀.

constipata W. M. Wheeler. (In flavens group.) Tex.
Pheidole constipata W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 468. ☿ ♀ ♀ ♂.

crassicornis crassicornis Emery. (In fallax group.) N. C., S. C., Ga., ?Miss., Tenn.
Pheidole crassicornis Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 289, 296. ♀.
Biology: W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 302.—M. R. Smith, 1918. Ent. News 29: 22.
Taxonomy: Forel, 1901. Soc. Ent. Belg. Ann. 45: 350. ☿ ♀ ♂.

crassicornis porcula W. M. Wheeler. (In fallax group.) Tex. (Chisos Mts.).
Pheidole crassicornis porcula W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 466. ☿ ♀.

crassicornis porcula var. **tetra** W. M. Wheeler. (In fallax group.) Tex.
Pheidole crassicornis porcula var. ***tetra*** W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 467. ☿ ♀.

crassicornis vallicola W. M. Wheeler. (In fallax group.) Ariz. (Miller Canyon in Huachuca Mts., 5,000 ft.).
Pheidole crassicornis vallicola W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 409. ☿ ♀.

crassicornis var. **diversipilosa** W. M. Wheeler. (In fallax group.) Tex. (Fort Davis).
Pheidole crassicornis var. ***diversipilosa*** W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 467. ☿ ♀ ♀.

davisi W. M. Wheeler. (In subarmata group.) N. J., N. Y.
Pheidole davisi W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 380. ☿ ♀.
Biology: Davis and Bequaert, 1922. Brooklyn Ent. Soc. Bul. 17: 8–9.—Bequaert, 1928. Cornell Univ. Agr. Expt. Sta. Mem. 101: 996.

dentata Mayr. (In fabricator group.) Va. to Fla. and west to Ill., Kans., and Tex.
Pheidole Morrisi var. ***dentata*** Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 457. ☿ ♀ ♂.
Biology: Mitchell and Pierce, 1912. Ent. Soc. Wash. Proc. 14: 71.—M. R. Smith, 1924. Ent. News 35: 77.—Cole, 1940. Amer. Midland Nat. 24: 29, 44.
Taxonomy: Forel, 1901. Soc. Ent. Belg. Ann. 45: 351–352, ♀ ♂.—Cole, 1940. Amer. Midland Nat. 24: 42, ♀.

dentata var. **commutata** Mayr. (In fabricator group.) N. C. to Fla. and west to Kans. and Tex.
Pheidole commutata Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 459. ☿. ♀.
Leptothorax tennesseensis Cole, 1938. Amer. Midland Nat. 19: 238. ☿.
Biology: M. R. Smith, 1924. Ent. News 35: 77–78.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 281, 304.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 460–461. ☿ ♀ ♀.

dentata var. **faisonsica** Forel. (In fabricator group.) Ga., N. C.
Pheidole dentata var. *faisonsica* Forel, 1901. Soc. Ent. Belg. Ann. 45: 352. ☿ ♀.

dentigula M. R. Smith. (In flavens group.) N. C. to Fla. and west to La.
Pheidole dentigula M. R. Smith, 1927. Ent. News 38: 310. ☿ ♀.
Biology: M. R. Smith, 1944. Fla. Ent. 27: 14.
Taxonomy: M. R. Smith, 1928. Ent. News 39: 245–246, ♀.—Cole, 1940. Amer. Midland Nat. 24: 42, 45.

desertorum W. M. Wheeler. (In biconstricta group.) Utah, Ariz., Tex.
Pheidole desertorum W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 337. ☿ ♀ ♀ ♂.
Biology: Cole, 1934. Ent. Soc. Amer. Ann. 27: 397.—Cole, 1937. Ent. News 48: 100.
Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 362, ♀.

desertorum var. **comanche** W. M. Wheeler. (In biconstricta group.) Tex.
Pheidole desertorum var. *comanche* W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 339. ☿ ♀ ♀.

desertorum var. **maricopa** W. M. Wheeler. (In biconstricta group.) Ariz. (Grand Canyon).
Pheidole desertorum var. *maricopa* W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 339. ☿ ♀.

flavens sculptior Forel. (In flavens group.) Fla.; W. Indies.
Pheidole flavens sculptior Forel, 1893. Ent. Soc. London Trans., p. 414. ☿ ♀ ♀.
Biology: M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 842.
Taxonomy: Forel, 1901. Soc. Ent. Belg. Ann. 45: 366, ☿ ♀.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 134, ♀.

floridana Emery. (In flavens group.) Fla., ?Miss., ?La.
Pheidole flavens floridana Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 289, 293. ☿ ♀ ♀.

grallipes W. M. Wheeler. (In biconstricta group.) Calif.; Mexico.
Pheidole susannae longipes Pergande, 1895. Calif. Acad. Sci. Proc. 5: 885. ☿ ♀. Preocc.
Pheidole grallipes W. M. Wheeler, 1916. Psyche 23: 40. N. name.
Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 69.
Taxonomy: W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 397–398, ☿ ♀ ♀.

grallipes var. **vistana** Forel. (In biconstricta group.) Calif. (Vista).
Pheidole longipes var. *vistana* Forel, 1914. Soc. Vaud. Sci. Nat. Bul. 50: 272. ☿.

hayesi M. R. Smith. (In subarmata group.) Kans. (Manhattan).
Pheidole hayesi M. R. Smith, 1924. Ent. News 35: 251. ☿ ♀.
Economics: Hayes, 1925. Ent. News 36: 42.

humeralis W. M. Wheeler. (In subarmata group.) Tex. (Corsicana).
Pheidole humeralis W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 456. ☿ ♀.

hyatti hyatti Emery. (In fallax group.) Okla. and Calif. to Mexico.
Pheidole hyatti Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 289, 290, 295. ☿ ♀.
Biology: Essig, 1926. Ins. of West. No. Amer., p. 859.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 462–463, ♀.
Economics: Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 26.

hyatti solitanea W. M. Wheeler. (In fallax group.) Calif. (San Diego).
Pheidole hyatti solitanea W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 409. ☿ ♀ ♀.

hyatti var. **ecitonodora** W. M. Wheeler. (In fallax group.) Colo., Tex., N. Mex.
Pheidole hyatti var. *ecitonodora* W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 463. ☿ ♀ ♀ ♂.

kingi instabilis Emery. (In subarmata group.) Tex.; Mexico. *P. kingi kingi* André occurs in Mexico.
Pheidole kingi instabilis Emery, 1901. Soc. Ent. France Bul., p. 120. ☿ ♀.
Biology: W. M. Wheeler, 1901. Soc. Ent. Belg. Ann. 45: 203.—W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 2–12.
Morphology: W. M. Wheeler, 1926. Ants, p. 56.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 431–433, ☿ ♀ ♀ ♂.

kingi torpescens W. M. Wheeler. (In subarmata group.) Ariz. (Tucson).
Pheidole kingi torpescens W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 404. ☿ ♀.

lamia W. M. Wheeler. (In subarmata group.) Miss., Tex.
Pheidole lamia W. M. Wheeler, 1901. Amer. Nat. 35: 534. ☿ ♀.
Biology: W. M. Wheeler, 1926. Ants, pp. 212, 248.—M. R. Smith, 1931. Ent. News 42: 21–22.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 477–478. ♀ ♀

lauta W. M. Wheeler. (In flavens group.) Tex. (New Braunfels).
Pheidole lauta W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 470. ☿ ♀ ♀ ♂.

macclendoni W. M. Wheeler. (In subarmata group.) Tex.
Pheidole macclendoni W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 450. ☿ ♀.

marcidula W. M. Wheeler. (In subarmata group.) Tex. (Austin).
Pheidole marcidula W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 457. ☿ ♀.

megacephala (Fabricius). (In megacephala group.) Fla. Pantropical.
Formica megacephala Fabricius. 1793. Ent. System. 2: 361. ♀.
Biology: Phillips, 1934. (Hawaii Univ.) Expt. Sta. Pineapple Prod. Coop. Assoc. Bul. 15: 5–12.
Taxonomy: M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 843–844, ♀.
Economics: Illingworth, 1916. Hawaii. Ent. Soc. Proc. 3: 349–368.

metallescens metallescens Emery. (In flavens group.) Fla., Ga., N. C.
Pheidole metallescens Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 289, 294. ☿.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 476–477, ☿ ♀.

metallescens splendidula W. M. Wheeler. (In flavens group.) N. C. to Ga. and west to Tex.
Pheidole metallescens splendidula W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 474. ☿ ♀ ♀ ♂.
Biology: M. R. Smith, 1924. Ent. News 35: 78.
Taxonomy: M. R. Smith, 1934. N. Y. Ent. Soc. Jour. 42: 356, ☿ ♀.

militicida W. M. Wheeler. (In subarmata group.) Ariz.
Pheidole militicida W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 398. ☿ ♀.
Biology: Cole, 1934. Ent. Soc. Amer. Ann. 27: 395.

morrisii Forel. (In fabricator group.) N. Y. to Fla. and west to Ill., La. and Tex.
Pheidole Morrisii Forel, 1886. Soc. Ent. Belg. Bul. 30: 46. ☿ ♀.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 380.—Davis and Bequaert, 1922. Brooklyn Ent. Soc. Bul. 17: 8–9.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 460–461, ☿ ♀ ♀ ♂.

morrisii var. **impexa** W. M. Wheeler. (In fabricator group.) Tex. (Del Valle near Austin).
Pheidole morrisi var. *impexa* W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 461. ☿ ♀ ♀ ♂.
Economics: Lindquist, 1942. Jour. Econ. Ent. 35: 850–852.

morrisii var. **vanceae** Forel. (In fabricator group.) Miss., N. C.

Pheidole morrisii var. ***Vanceae*** Forel, 1901. Soc. Ent. Belg. Ann. 45: 351. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 302.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 461.—M. R. Smith, 1924. Ent. News 35: 53.

nuculiceps W. M. Wheeler. (In flavens group.) Tex. (New Braunfels).
Pheidole nuculiceps W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 473. ☿ ♀.

pilifera artemisia Cole. (In subarmata group.) Utah (Provo).
Pheidole pilifera artemisia Cole, 1933. Ent. Soc. Amer. Ann. 26: 616. ☿ ♀.
Biology: Cole, 1942. Amer. Midland Nat. 28: 362.
Taxonomy: Cole, 1938. Amer. Midland Nat. 20: 372, ♀.

pilifera coloradensis Emery. (In subarmata group.) Colo. Host of the permanently parasitic ant *Epipheidole inquilina* Whlr.
Pheidole pilifera var. ***coloradensis*** Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 288, 291. ☿ ♀.
Biology: W. M. Wheeler, 1903. Amer. Mus. Nat. Hist. Bul. 19: 666.—W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 16–17.—W. M. Wheeler, 1926. Ants, pp. 279, 498.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 434, ☿ ♀ ♂.

pilifera coloradensis var. **neomexicana** W. M. Wheeler. (In subarmata group.) N. Mex.
Pheidole pilifera coloradensis var. ***neomexicana*** W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 436. ♀.

pilifera pilifera (Roger). (In subarmata group.) Mass. and N. Y. to Miss. and west to Kans. and Nebr. Host of *Epipheidole inquilina* Whlr.
Leptothorax pilifer Roger, 1863. Berlin. Ent. Ztschr. 7: 180. ☿.
Pheidole pennsylvanica Roger, 1863. Berlin. Ent. Ztschr. 7: 199. ♀.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 379–380.—W. M. Wheeler, 1926. Ants, pp. 152, 278.—L. G. ,Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 92.

pilifera septentrionalis W. M. Wheeler. (In subarmata group.) Mass., N. Y.
Pheidole pilifera septentrionalis W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 436. ♀.

pilifera var. **simulans** W. M. Wheeler. (In subarmata group.) N. C., N. J., N. Y.
Pheidole pilifera var. ***simulans*** W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 436. ♀.

pinealis W. M. Wheeler. (In subarmata group.) Tex. (Limpio Canyon).
Pheidole pinealis W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 459. ☿ ♀.

proserpina W. M. Wheeler. (In subarmata group.) Ariz. (Tempe).
Pheidole proserpina W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 437. ☿ ♀.
Biology: Cole, 1934. Ent. Soc. Amer. Ann. 27: 397.

rhea W. M. Wheeler. (In macropheidole group.) Ariz.; Mexico.
Pheidole rhea W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 452. ♀.
Biology: R. E. Gregg, 1949. Psyche 56: 70–73.
Taxonomy: M. R. Smith, 1943. Ent. Soc. Wash. Proc. 45: 5–9, ☿ ♀.—R. E. Gregg, 1949. Psyche 56: 70–73, ☿ ♀ ♀.

ridicula W. M. Wheeler. (In praeusta group.) Tex. (Brownsville).
Pheidole ridicula W. M. Wheeler, 1916. New England Zool. Club Proc. 6: 29. ♀.

sciophila W. M. Wheeler. (In flavens group.) Tex.
Pheidole sciophila W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 443. ☿ ♀ ♀ ♂.

sciophila var. **semilaevicephala** M. R. Smith. (In flavens group.) Ariz. (Yuma).
Pheidole sciophila var. ***semilaevicephala*** M. R. Smith, 1934. Ent. Soc. Amer. Ann. 27: 385. ♀.

sitarches rufescens W. M. Wheeler. (In subarmata group.) Miss., Mo., Kans., Okla., Tex.

Pheidole sitarches rufescens W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 443. ☿ ♀ ♀.
Biology: M. R. Smith, 1924. Ent. News 35: 53.

sitarches rufescens var. **campestris** W. M. Wheeler. (In subarmata group.) Tex. (Henrietta).
Pheidloe sitarches rufescens var. ***campestris*** W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 443. ☿ ♀.

sitarches sitarches W. M. Wheeler. (In subarmata group.) Iowa, Kans., Tex.
Pheidole sitarches W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 440. ☿ ♀ ♀.
Biology: Hayes, 1925. Ent. News 36: 41.—W. M. Wheeler, 1926. Ants, p. 279.
Taxonomy: Buren, 1944. Iowa State Col. Jour. Sci. 18: 285, ♀.

sitarches var. **transvarians** W. M. Wheeler. (In subarmata group.) Tex. (Mt. Barker near Austin).
Pheidloe sitarches var. ***transvarians*** W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 442. ☿ ♀.

soritis W. M. Wheeler. (In subarmata group.) N. Mex. (Albuquerque).
Pheidole soritis W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 439. ☿ ♀.

spadonia W. M. Wheeler. (In praeusta group.) Ariz. (Tucson).
Pheidole spadonia W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 400. ☿ ♀.

tepicana cavigenis W. M. Wheeler. (In subarmata group.) Ariz. (Miller Canyon).
P. tepicana tepicana Pergande occurs in Mexico.
Pheidole tepicana cavigenis W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 403. ♀.

texana W. M. Wheeler. (In fallax group.) Tex. (Travis Co.).
Pheidole texana W. M. Wheeler, 1903. Psyche 10: 97. ☿ ♀.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 464, ☿ ♀.

titanis W. M. Wheeler. (In fallax group.) Tex.
Pheidole titanis W. M. Wheeler, 1903. Psyche 10: 95. ☿ ♀.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 461–462.

tysoni Forel. (In subarmata group.) N. Y. to Ga., west to Ohio and La.
Pheidole Tysoni Forel, 1901. Soc. Ent. Belg. Ann. 45: 348. ☿ ♀ ♂.
Biology: Dennis, 1938. Ent. Soc. Amer. Ann. 31: 282, 304.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 92.
Taxonomy: Cole, 1940. Amer. Midland Nat. 24: 42, 45. ♀.

vasliti subdentata var. **arizonica** Santschi. (In fallax group.) Ariz. (Tucson).
P. vasliti subdentata Pergande occurs in Mexico. Workers are polymorphic.
Pheidole arizonica Santschi, 1909. Soc. Ent. Ital. Bol. 41: 3. ♀.
Taxonomy: W. M. Wheeler, 1914. N. Y. Ent. Soc. Jour. 22: 49–51, ♀.

vinelandica buccalis W. M. Wheeler. (In subarmata group.) Ariz.
Pheidole vinelandica buccalis W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 454. ☿ ♀ ♀.

vinelandica cerebrosior W. M. Wheeler. (In subarmata group.) Ariz. (Tucson).
Pheidole vinelandica cerebrosior W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 405. ☿ ♀.

vinelandica laeviuscula Emery. (In subarmata group.) Mo. (Doniphan).
Pheidole vinelandica laeviuscula Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 289, 292. ☿ ♀.

vinelandica longula Emery. (In subarmata group.) N. Y., Tex., Colo., Idaho.
Pheidole vinelandica var. ***longula*** Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 289, 292. ☿ ♀.
Biology: Davis and Bequaert, 1922. Brooklyn Ent. Soc. Bul. 17: 9.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 453–454, ♀.

vinelandica longula var. **huachucana** M. R. Smith, n. name. (In subarmata group.) Ariz. (Huachuca Mts.).
Pheidole vinelandica longula var. ***castanea*** W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 405. ☿ ♀. Preocc. by F. Smith, 1858.
Biology: Cole, 1937. Ent. News 48: 100.

vinelandica vinelandica Forel. (In subarmata group.) N. Y. to Ga., west to N. Dak. and Ariz.
Pheidole bicarinata race ***vinelandica*** Forel, 1886. Soc. Ent. Belg. Ann. 30: 45. ☿ ♀ ♀ ♂.
Biology: W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 336–337.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 92.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 453, ☿ ♀.

vinelandica var. **nebrascensis** Forel. (In subarmata group.) Nebr. (No specific locality cited.)
Pheidole (Allopheidole) vinelandica var. ***nebrascensis*** Forel, 1922. Rev. Suisse Zool. 30: 92. ☿ ♀ ♀.

virago W. M. Wheeler. (In praeusta group.) Ariz. (Tucson).
Pheidole virago W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 401. ☿ ♀.

xerophila pacifica W. M. Wheeler. (In subarmata group.) Calif.
Pheidole xerophila pacifica W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 404. ☿ ♀ ♀ ♂.

xerophila tucsonica W. M. Wheeler. (In subarmata group.) Ariz. (Tucson).
Pheidole xerophila tucsonica W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 448. ☿ ♀.
Biology: Cole, 1934. Ent. Soc. Amer. Ann. 27: 397.

xerophila tucsonica var. **gilvescens** W. M. Wheeler. (In subarmata group.) Ariz.
Pheidole xerophila tucsonica var. ***gilvescens*** W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 448. ☿ ♀.
Biology: Cole, 1934. Ent. Soc. Amer. Ann. 27: 397.

xerophila xerophila W. M. Wheeler. (In subarmata group.) Tex. (Ft. Davis).
Pheidole xerophila W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 446. ☿ ♀ ♂.

Unrecognized Forms of Genus Pheidole Westwood

buckleyi M. R. Smith, n. name.
Atta pennsylvanica Buckley, 1867. Ent. Soc. Phila. Proc. 6: 345. ☿ ♀. Preocc. by Roger, 1863.

picea (Buckley). Tex.
Atta picea Buckley, 1867. Ent. Soc. Phila. Proc. 6: 344. ☿ ♀.

Subgenus CERATOPHEIDOLE Pergande

Pheidole subg. ***Ceratopheidole*** Pergande, 1895. Calif. Acad. Sci. Proc. 5: 889. Type: ***Pheidole (Ceratopheidole) granulata*** Pergande. Monob.

Previously known only from the Oriental and Neotropical Regions, this group of ants has recently been found in New Mexico. The general habits are very probably similar to those of the subgenus *Pheidole*.

clydei R. E. Gregg. N. Mex. (Carrizozo).
Pheidole (Ceratopheidole) clydei R. E. Gregg, 1950. N. Y. Ent. Soc. Jour. 58: 89. ☿.

Genus EPIPHEIDOLE W. M. Wheeler

Epipheidole W. M. Wheeler, 1903. Amer. Mus. Nat. Hist. Bul. 19: 664. Type: ***Epipheidole inquilina*** W. M. Wheeler. Monob.
Revision: W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 14–17.

Represented by a single, rare species, *inquilina*.

inquilina W. M. Wheeler. Nebr., Colo. Permanent parasite in the nest of *Pheidole pilifera* (Roger) and its subspecies, *coloradensis*.
Epipheidole inquilina W. M. Wheeler, 1903. Amer. Mus. Nat. Hist. Bul. 19: 664. Gynandromorph.
Biology: W. M. Wheeler, 1923. Social Life Among the Insects, pp. 215–219.—W. M. Wheeler, 1926, Ants, pp. 107, 113, 150, 156, 497–498.
Taxonomy: W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 15–17, ♀ ♂.—M. R. Smith, 1940. Ent. Soc. Wash. Proc. 42: 106–109, ☿.

Genus SYMPHEIDOLE W. M. Wheeler

Sympheidole W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 1, 7.
Type: ***Sympheidole elecebra*** W. M. Wheeler. Monob.

This genus contains a single known species.

elecebra W. M. Wheeler. Colo. A permanent parasite in colonies of *Pheidole ceres* W. M. Wheeler, a common ant in the mountains of Colorado and New Mexico, at altitudes between 2,500 and 3,000 feet.
Sympheidole elecebra W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 8. ♀ ♂.
Biology: W. M. Wheeler, 1923. Social Life Among the Insects, p. 219.—W. M. Wheeler, 1926. Ants, p. 497.

Genus CARDIOCONDYLA Emery

Cardiocondyla Emery, 1869. Accad. degli Aspiranti Naples, Ann. 2: 20.
Type: ***Cardiocondyla elegans*** Emery. Monob.
Emeryia Forel, 1890. Soc. Ent. Belg. Ann. (C. R.) 34: 110.
Type: ***Emeryia wroughtoni*** Forel. Monob.
Revision: M. R. Smith, 1944. Ent. Soc. Wash. Proc. 46: 30–41.

In the United States this genus is known only from Florida. The colonies are small and the nests are constructed in the soil and in cavities of plants.

emeryi Forel. Fla.; W. Indies, Africa, Asia, Pacific Isl. Probably introduced into U. S.
Cardiocondyla Emeryi Forel, 1881. München Ent. Ver. Mitt. 5: 6. ☿.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 89.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 835.
Morphology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 89.
Taxonomy: Borgmeier, 1937. Rev. de Ent. 7: 133, ergatoid ♂.

nuda var. **minutior** Forel. Fla., Ga.; Pacific Isl. Probably introduced into U. S.
Cardiocondyla nuda var. ***minutior*** Forel, 1899. Fauna Hawaii., v. 1, p. 120. ☿.
Biology: Phillips, 1934. (Hawaii Univ.) Expt. Sta. Pineapple Prod. Coop. Assoc. Bul. 15: 22.

venustula W. M. Wheeler. Fla.; Puerto Rico, Haiti.
Cardiocondyla venustula W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 128. ☿ ♀.
Biology: M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 836.—M. R. Smith, 1944. Fla. Ent. 27: 15.

wroughtoni var. **bimaculata** W. M. Wheeler. Fla.; Formosa. Probably introduced into U. S. *C. wroughtoni* Forel occurs in India.
Cardiocondyla wroughtoni var. ***bimaculata*** W. M. Wheeler, 1929. Lab. Zool. Gen. e Agr. Portici Bol. 24: 43. ☿ ♀.
Biology: W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 7.—M. R. Smith, 1933. Fla. Ent. 17: 24.

Genus CREMATOGASTER Lund

Subgenus ORTHOCREMA Santschi

Orthocrema Santschi, 1918. Soc. Ent. France Bul., p. 182.
Type: ***Myrmica sordidula*** Nylander. Orig. desig.
Neocrema Santschi, 1918. Soc. Ent. France Bul., p. 182.
Type: ***Crematogaster distans*** Mayr. Orig. desig.
Revisions: W. M. Wheeler, 1919. Psyche 26: 111.—Creighton, 1939. Psyche 46: 137–140.

In the Nearctic Region the ants of this subgenus are largely confined to the southern part of the United States.

arizonensis W. M. Wheeler. Ariz.
Crematogaster arizonensis W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 482. ☿.
Biology: W. M. Wheeler, 1912. N. Y. Ent. Soc. Jour. 20: 130–133.

minutissima minutissima Mayr. S. C. to Fla., west to Tex.
Crematogaster minutissima Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 991, 995. ☿ ♀.
Biology: M. R. Smith, 1928. Ent. News 39: 277.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 484, ☿ ♀.

minutissima missouriensis Emery. S. C. to Fla., west to Nebr., Tex. and N. Mex.
Crematogaster victima missuriensis (!) Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 287. ☿.
Biology: Dennis, 1938. Ent. Soc. Amer. Ann. 31: 284, 304.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 289.
Taxonomy: M. R. Smith, 1924. Ent. News 35: 81, ☿.—Cole, 1940. Amer. Midland Nat. 24: 46, ☿.

minutissima smithi Creighton. Ariz.
Crematogaster (*Orthocrema*) *minutissima thoracica* Creighton, 1939. Psyche 46: 138. ☿. Preocc.
Crematogaster (*Orthocrema*) *minutissima smithi* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 205. N. name.

Subgenus CREMATOGASTER Lund

Crematogaster Lund, 1831. Ann. des Sci. Nat., Zool. 23: 132.
Type: *Formica scutellaris* Olivier. Desig. by Bingham, 1903.
Cremastogaster Agassiz, 1846. Nomencl. Zool., Index Univ., p. 103. Emend.
Acrocoelia Mayr, 1852. Zool.-Bot. Gesell. Wien, Verh. 2: 147.
Type: (*Acrocoelia ruficeps* Mayr)=*Formica scutellaris* Olivier. Desig. by W. M. Wheeler, 1911.
Revisions: Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 989–996.—Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 280–288.—W. M. Wheeler, 1919. Psyche 26: 111.

These ants nest in moderately large colonies in the soil, wood, crevices of plants, insect galls, carton nests of their own making, and even in buildings. Some are well known house-infesting forms; others have been reported to kill young birds and even to gnaw the rubber insulation from telephone wires. Two apparently workerless species have been found to live as parasites in the nests of closely related forms of *Crematogaster*.

ashmeadi Mayr. Va. to Fla. west to Tex.; Bahamas.
Crematogaster Ashmeadi Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 463. ☿ ♂.
Biology: M. R. Smith, 1924. Ent. News 35: 79.—Cole, 1940. Amer. Midland Nat. 24: 46.
Taxonomy: W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 8, ☿ ♂.

ashmeadi var. **matura** W. M. Wheeler. Fla.
Crematogaster (*Acrocoelia*) *ashmeadi* var. *matura* W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 8. ☿.

atkinsoni W. M. Wheeler. Va., N. C., Fla., Ala., Miss. The nests are of coarse gray or blackish carton on sedges or bushes, a foot and a half or more above the ground. In size they range from the diameter of an egg to that of the human head.
Crematogaster atkinsoni W. M. Wheeler, 1919. Psyche 26: 108. ☿.
Biology: Atkinson, 1887. Amer. Nat. 21: 770–771.—M. R. Smith, 1930. Fla. Ent. 14: 4–5.—W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 8–9.

atkinsoni var. **helveola** W. M. Wheeler. N. C., Ga., Fla.
Crematogaster atkinsoni var. *helveola* W. M. Wheeler, 1919. Psyche 26: 109. ☿ ♀ ♂.

californica Emery, n. status. Calif.; Lower Calif.
Crematogaster lineolata laeviuscula var. *californica* Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 285. ☿.
Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 70.
Taxonomy: W. M. Wheeler, 1934. Pan-Pacific Ent. 10: 135–136, ☿.

coarctata Mayr. Calif., Oreg., Ariz.
Crematogaster coarctata Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 990, 992. ☿.
Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 70–71.—Essig, 1926. Ins. of West. No. Amer., p. 859.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 482, ☿.

coarctata mormonum Emery, n. status. Tex., Utah, N. Mex.
Crematogaster lineolata coarctata var. ***mormonum*** Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 284. ☿.
Biology: Cole, 1942. Amer. Midland Nat. 28: 363.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 482, ☿ ♀ ♂.

creightoni W. M. Wheeler. Va. (Roanoke). Parasitic in nest of *Crematogaster pilosa* Emery.
Crematogaster (***Acrocoelia***) ***creightoni*** W. M. Wheeler, 1933. Psyche 40: 86. ♀.

kennedyi W. M. Wheeler. Ind. (Robinson Park in Fort Wayne). Parasitic in nest of *Crematogaster lineolata* var. near *cerasi* (Fitch).
Crematogaster (***Acrocoelia***) ***kennedyi*** W. M. Wheeler, 1930. Psyche 37: 58. ♀ ♂.
Biology: Morris, 1943. Ind. Acad. Sci. Proc. 52: 208.
Taxonomy: W. M. Wheeler, 1933. Psyche 40: 83–84, ♀ ♂.

laeviuscula Mayr. Va. to Fla., west to Kans., Tex. and N. Mex.
Crematogaster laeviuscula Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 990, 993. ☿.
Biology: M. R. Smith, 1924. Ent. News 35: 80.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 283, 304.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 481, ☿ ♀ ♂.—Cole, 1940. Amer. Midland Nat. 24: 46, ☿.

laeviuscula var. **clara** Mayr. Ill., N. C., and Fla. to Kans., Tex., and Ariz.
?***Oecodoma*** (***Atta***) ***arborea*** Buckley, 1867. Ent. Soc. Phila. Proc. 6: 349, 350. ☿ ♀. Preocc.
?***Oecodoma*** (***Atta***) ***bicolor*** Buckley, 1867. Ent. Soc. Phila. Proc. 6: 350. ☿. Preocc.
Crematogaster clara Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 990, 993. ☿.
Biology: Dennis, 1938. Ent. Soc. Amer. Ann. 31: 283.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 481, ☿ ♀ ♂.—M. R. Smith, 1924. Ent. News 35: 80, ☿.

lineolata cerasi (Fitch). Que. to Va., west to Idaho.
Myrmica cerasi Fitch, 1855 (1854). N. Y. State Agr. Soc. Trans. 14: 835. ☿.
Biology: Gaige, 1914. Mich. Univ. Mus. Zool. Occas. Papers 5: 8–9.—Headley, 1943. Ohio Jour. Sci. 43: 25.—G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart, 11: 245.
Taxonomy: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 282–283, ☿.

lineolata lineolata (Say). Ont. to Fla., west to N. Dak. and Tex. Infests houses, often nesting within the buildings. One of the best known and most widely distributed forms of *Crematogaster*.
Myrmica lineolata Say, 1836. Boston Jour. Nat. Hist. 1: 290. ☿ ♀ ♂.
?***Myrmica*** (***Monomarium*** (!)) ***marylandica*** Buckley, 1867. Ent. Soc. Phila. Proc. 6: 339. ☿.
?***Myrmica*** (***Monomarium*** (!)) ***columbiana*** Buckley, 1867. Ent. Soc. Phila. Proc. 6: 340. ☿ ♀.
Biology: W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 1–18.—W. M. Wheeler, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 585.—L. G., Jr. and R. G. Wesson, 1940. Amer. Midland Nat. 24: 93.
Taxonomy: Buren, 1944. Iowa State Col. Jour. Sci. 18: 288, ☿.
Economics: Wallace, 1945. Conn. State Ent. 44th Rpt., Bul. 488: 389.

lineolata subopaca Emery, n. status. Ga., Va.
Crematogaster lineolata lineolata var. ***subopaca*** Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 283. ☿ ♀ ♂.

lineolata var. **lutescens** Emery. N. J. to Ga. Probably an invalid form.
Crematogaster lineolata lineolata var. ***lutescens*** Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 282. ☿.

Taxonomy: M. R. Smith, 1918. Ent. News 29: 19, ☿.

opaca depilis W. M. Wheeler, n. status. Ariz., N. Mex., Tex.; Mexico. *C. opaca opaca* Mayr occurs in Mexico.

Crematogaster lineolata opaca var. ***depilis*** W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 478. ☿.

opaca punctulata Emery, n. status. S. C., west to Colo. and N. Mex.; Mexico.

Crematogaster punctulata Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 287. ☿.

Biology: M. R. Smith, 1927. Ent. News 38: 310.

Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 479–480, ☿ ♀.

pilosa Emery. N. Y. to Fla., west to Tex. Host of the parasitic ant, *C. creightoni* Whlr.

Crematogaster lineolata pilosa Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 285. ☿.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 379.—W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 6–7.

Taxonomy: W. M. Wheeler, 1933. Psyche 40: 85, ☿ ♀.

vermiculata Emery. Calif., Utah, La.

Crematogaster vermiculata Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 286. ☿.

Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 363, ☿.

Unrecognized Forms of Subgenus Crematogaster Lund

Crematogaster* (*Acrocoelia*) *lineolata cerasi var. ***punctinodis*** J. Enzmann, 1946. N. Y. Ent. Soc. Jour. 54: 91, 93, 96. ☿ ♀ ♂.

Crematogaster* (*Acrocoelia*) *lineolata cerasi var. ***wheldeni*** J. Enzmann, 1946. N. Y. Ent. Soc. Jour. 54: 92, 93, 96. ☿.

Myrmica novaeboracensis Buckley, 1867. Ent. Soc. Phila. Proc. 6: 337. ♀.

Crematogaster* (*Acrocoelia*) *opaca var. ***texana*** Santschi, 1929. Wien. Ent. Ztg. 46: 91. ☿.

Crematogaster* (*Acrocoelia*) *sanguinea coachellai J. Enzmann, 1946. N. Y. Ent. Soc. Jour. 54: 95, ☿.—***Crematogaster* (*Acrocoelia*) *lineolata var. coachellai*** J. Enzmann, 1946. N. Y. Ent. Soc. Jour. 54: 97, fig. 3, ☿ (petiole).

Genus MONOMORIUM Mayr

Subgenus MONOMORIUM Mayr

Monomorium Mayr, 1855. Zool.-Bot. Gesell. Wien, Verh. 5: 452.
Type: ***Monomorium minutum*** Mayr. Monob.

Represented in almost all the temperate and tropical regions of the world.

floricola (Jerdon). Ala., Fla. Tropicolitan, probably originally native to the East Indies and introduced into the United States. Infest houses.

Atta Floricola Jerdon, 1851. Madras Jour. Lit. and Sci. 17: 107. ☿.

Biology: W. M. Wheeler, 1926. Ants, pp. 153, 426.—M. R. Smith, 1930. Fla. Ent. 14: 3.—W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 9.

Taxonomy: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 88, ♀.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 831, 834, ☿.

minimum emersoni R. E. Gregg. Ariz., Tex.

Monomorium minimum emersoni R. E. Gregg, 1945. Psyche 52: 66. ☿ ♀.

minimum ergatogyna W. M. Wheeler. Calif. (Catalina Isl.).

Monomorium minutum ergatogyna W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 269. ☿, apterous ergatoid ♀.

Taxonomy: W. M. Wheeler, 1905. South. Calif. Acad. Sci. Bul. 40: 60, ☿, apterous ergatoid ♀.

minimum minimum (Buckley). Canada, U. S.; Mexico. Host of the parasitic ant, *Epoecus pergandei* Emery. A common house-infesting form.

Myrmica* (*Monomarium*)** (!) ***minima Buckley, 1867. Ent. Soc. Phila. Proc. 6: 338. ☿ ♀.

Myrmica* (*Monomarium*)** (!) ***atra Buckley, 1867. Ent. Soc. Phila. Proc. 6: 342. ?☿.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 274, 377.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 271, 272, 274, 279–280.—R. E. Gregg, 1944. Ent. Soc. Amer. Ann. 37: 454, 456, 466.
Taxonomy: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 274–275, ☿ ♀ ♂.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 423, ☿ ♀.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 289, ☿.
Economics: Marlatt, 1922. U. S. Dept. Agr. Farmers' Bul. 740: 4, 10.—Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 23.—Metcalf and Flint, 1939. Destructive and Useful Insects, p. 770.

peninsulatum R. E. Gregg. Fla. (South Miami).
Monomorium peninsulatum R. E. Gregg, 1945. Psyche 52: 62. ☿ ♀.

pharaonis (Linnaeus). All U. S.; Canada. Introduced into U. S. Probably a native of India but has become cosmopolitan through commerce. Especially troublesome in hotels, hospitals, apartment houses, restaurants and wholesale groceries. Nests in buildings in the colder regions and is active the entire year. The colonies are very populous and contain numerous females.
Formica Pharaonis Linnaeus, 1758. Syst. Nat., Ed. 10, v. 1, p. 580.
Biology: Bellevoye, 1889. U. S. Dept. Agr. Insect Life 2: 230–233.—Essig, 1926. Ins. of West. No. Amer., p. 857.—R. C. Smith, 1934. Kans. Acad. Sci. Trans. 37: 140–142.
Taxonomy: Emery, 1908. Deut. Ent. Ztschr., pp. 664–665, 667, 684, ☿ ♀ ♂.—Donisthorpe, 1927. British Ants, p. 104, ☿ ♀ ♂.—Buren, 1944. Iowa State Col. Jour. Sci. 18:289, ☿.
Economics: Herrick, 1914. Insects Injurious to the Household and Annoying to Man, pp. 174–176.—Metcalf and Flint, 1939. Destructive and Useful Insects, p. 770.
Physiology: Tanquary, 1913. Ill. State Lab. Nat. Hist. Bul. 9: 443–453.

viridum Brown. N. J. (Lakehurst).
Monomorium viridum Brown, 1943. Ent. News 54: 243. ☿ ♀.

Subgenus PARHOLCOMYRMEX Emery

Monomorium subg. *Parholcomyrmex* Emery, 1915. Soc. Ent. France Bul., p. 190.
Type: *Myrmica gracillima* F Smith. Orig. desig.

destructor (Jerdon). Fla., Tenn. Introduced.
Atta Destructor Jerdon, 1851. Madras Jour. Lit. and Sci. 17: 105. ☿.
Biology: W. M. Wheeler, 1926. Ants. pp. 10, 153, 221.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 833.
Taxonomy: Bingham, 1903. Fauna of British India, v. 2, p. 209, ☿ ♀ ♂.—Emery, 1908. Deut. Ent. Ztschr., pp. 665–666, 671, ☿ ♀.—Phillips, 1934. (Hawaii Univ.) Expt. Sta. Pineapple Prod. Coop. Assoc. Bul. 15: 2, ☿.
Economics: W. M. Wheeler, 1914. Amer. Jour. Trop. Dis. and Prev. Med. 2: 160–168.—Kalshoven, 1937. Ent. Meded. van Nederland. Indië. 3: 65–71.—Marlatt, 1928. U. S. Dept. Agr. Farmers' Bul. 740: 9.

Genus XENOMYRMEX Forel

Xenomyrmex Forel, 1885. Soc. Vaud. des Sci. Nat. Bul. 20: 369.
Type: *Xenomyrmex stollii* Forel. Monob.
Myrmecinella W. M. Wheeler, 1922. Amer. Mus. Novitates 46: 1.
Type: *Myrmecinella panamana* W. M. Wheeeler. Monob.
Revision: W. M. Wheeler, 1931. Rev. de Ent. 1: 129–139.

These ants nest in small colonies in plant cavities such as twigs, galls, and thorns. They appear to be strictly arboreal.

stollii floridanus Emery. Fla. *X. stollii stollii* Forel occurs in Guatemala.
Xenomyrmex stolli floridanus Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 275. ☿ ♂.
Biology: W. M. Wheeler, 1901. Amer. Nat. 35: 538.—W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 6.

stollii rufescens W. M. Wheeler. Fla. (Long Pine Key).
Xenomyrmex stolli rufescens W. M. Wheeler, 1931. Rev. de Ent. 1: 133, 137. ♀.

Genus SOLENOPSIS Westwood

Subgenus SOLENOPSIS Westwood

Solenopsis Westwood, 1841. Ann. Mag. Nat. Hist. 6: 86.
Type: (*Solenopsis mandibularis* Westwood)=[*Atta*] *geminata* (Fabricius). Monob.
Revisions: W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 397.—Creighton, 1930. Amer. Acad. Arts and Sci. Proc. 66: 39–105.

Heat-loving forms which usually nest in the soil but sometimes in rotten wood and occasionally in houses. The colonies are usually populous, and the workers are aggressive. They are carnivorous, granivorous, predaceous, and also feed on honeydew. Most of the Nearctic forms are serious pests, stealing seeds from seed beds, killing young quail and poultry or even small game, gnawing into vegetables, fruits, flowers, crops and fabrics, attending or fostering honeydew-excreting insects, damaging telephone equipment, making ugly mounds on lawns, and girdling young nursery trees. The workers of one form have been shown to carry viable dysentery germs for at least 24 hours on their bodies.

geminata geminata (Fabricius). Fla. to Tex.; W. Indies, Mexico, Cent. Amer. and Pacific Coastal Plain through Colombia, Ecuador, and Peru.
Atta geminata Fabricius, 1804. Systema Piezatorum, p. 423. ♀.
?*Myrmica* (*Monomarium* (!)) *saxicola* Buckley, 1867. Ent. Soc. Phila. Proc. 6: 341. ☿.
?*Atta Lincecumii* Buckley, 1867. Ent. Soc. Phila. Proc. 6: 344. ☿ ♀.
?*Atta brazoensis* Buckley, 1867. Ent. Soc. Phila. Proc. 6: 345. ☿ ♀.
?*Atta coloradensis* Buckley, 1867. Ent. Soc. Phila. Proc. 6: 346. ☿ ♀.
Biology: Mann, 1920. Amer. Mus. Nat. Hist. Bul. 42: 427.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 838–839.—Travis, 1941. Fla. Ent. 24: 15–22.
Economics: Clark, 1931. Tex. Agr. Expt. Sta. Bul. 435: 1–12.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 838.—H. K. Plank and M. R. Smith, 1940. Puerto Rico Univ. Jour. Agr. 24: 49–76.—Griffiths, 1942. Science (n. s.) 96: 271–272.—Lindquist, 1942. Jour. Econ. Ent. 35: 850–851.

geminata rufa (Jerdon). Fla. to Panama; also in the Oriental and Australian Regions.
Atta Rufa Jerdon, 1851. Madras Jour. Lit. and Sci. 17: 106. ☿.
Solenopsis geminata var. *diabola* W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 424. ♀ ☿ ♂.
Biology: Cole, 1934. Ent. Soc. Amer. Ann. 27: 395.—Phillips, 1934. (Hawaii Univ.) Expt. Sta. Pineapple Prod. Coop. Assoc. Bul. 15: 12–17.
Economics: Marlatt, 1928. U. S. Dept. Agr. Farmers' Bul. 740: 5.—Neig, 1930. Bombay Nat. Hist. Soc. Jour. 34: 185.

saevissima var. **richteri** Forel. Ala., Fla., Miss. Introduced from South America. *S. saevissima saevissima* (F. Smith) occurs in South America. This form is a serious pest.
Solenopsis Pylades var. *Richteri* Forel, 1909. Deut. Ent. Ztschr. p. 267. ☿ ♀.
Solenopsis Pylades var. *tricuspis* Forel, 1912. Soc. Ent. Belg. Mem. 20 :4. ☿.
Biology: Lyle and Fortune, 1948. Jour. Econ. Ent. 41: 833.

xyloni amblychila W. M. Wheeler. Ariz.; Mexico.
Solenopsis aurea amblychila W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 394. ☿ ♀ ♂.

xyloni aurea W. M. Wheeler. Tex., Ariz., N. Mex., Calif.; Mexico.
Solenopsis geminata var. *aurea* W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 336. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 425–426.

xyloni xyloni McCook. S. C. to Fla., west to Tex. and Ariz. The most widely distributed and common form of the subgenus in the Gulf Coast States.
Solenopsis xyloni McCook, 1879. *In* Comstock, Rpt. Cotton Ins., p. 188. ☿ ♀.

?***Myrmica* (*Atta*) *sabeana*** Buckley, 1867. Ent. Soc. Phila. Proc. 6: 343. ☿.
Biology: Metcalf and Flint, 1939. Destructive and Useful Insects, p. 771.
Economics: M. R. Smith, 1936. Jour. Econ. Ent. 29: 120–122.—Eagleson, 1940. Jour. Econ. Ent. 33: 700.

xyloni var. **maniosa** W. M. Wheeler. Ariz., Calif., N. Mex.; Mexico. Apparently the only form of *xyloni* occurring in California where it is widely distributed in the southern part of the State and occurs also in the interior valleys under 2,000 feet. Probably the most important native ant in California.
Solenopsis geminata maniosa W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 396. ☿ ♀ ♂.
Biology: Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 19–21.
Economics: Severin, 1923. Jour. Econ. Ent. 16: 96–97.—Mallis, 1938. Pan-Pacific Ent. 14: 87–91.

Subgenus EUOPHTHALMA Creighton

Solenopsis subg. ***Euophthalma*** Creighton, 1930. Amer. Acad. Arts and Sci. Proc. 66: 43.
Type: ***Myrmica globularia*** F. Smith. Orig. desig.
Revision: Creighton, 1930. Amer. Acad. Arts and Sci. Proc. 66: 42–43, 105–139.

Neotropical and Nearctic.

globularia littoralis Creighton. N. C. to Fla., west to La.; Mexico. *S. globularia globularia* (F. Smith) occurs in Central and South America.
Solenopsis* (*Euophthalma*) *globularia littoralis Creighton, 1930. Amer. Acad. Arts and Sci. Proc. 66: 110, 113. ☿ ♀ ♂.
Solenopsis globularia mobilensis M. R. Smith, 1931. Ent. News 42: 20. ☿. *Nom. nud.*
Biology: M. R. Smith, 1931. Ent. News 42: 20.—M. R. Smith, 1933. Fla. Ent. 17: 23.

huachucana W. M. Wheeler. Ariz. (Huachuca Mts.).
Solenopsis huachucana W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 393. ☿ ♀.

Subgenus DIPLORHOPTRUM Mayr

Diplorhoptrum Mayr, 1855. Zool.-Bot. Gesell. Wien, Verh. 5: 449.
Type: ***Formica fugax*** Latreille. Monob.
Revisions: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 277–279.—Creighton, 1930. Amer. Acad. Arts and Sci. Proc. 66: 43–44.—M. R. Smith, 1942. Ent. Soc. Wash. Proc. 44: 209–211.

This is the largest subgenus of *Solenopsis* in the Nearctic Region, with the majority of the forms occurring in southern and southwestern United States. Most forms nest in the soil freely or under cover, but some nest in wood, plant cavities, or insect galls, or even in buildings.

krockowi W. M. Wheeler. N. Mex. (Box Canyon in Sacramento Mts.).
Solenopsis krockowi W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 428. ☿ ♀.

laeviceps Mayr. Fla., La., Ohio; Colombia, British Guiana.
Solenopsis laeviceps Mayr, 1870. Akad. der Wiss. Wien, Math.—Nat. Kl. Sitzber. 61: 406. ☿.
Biology: W. M. Wheeler, 1936. Amer. Acad. Arts and Sci. Proc. 71: 194.
Taxonomy: Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 996, ☿.—Emery, 1896. Soc. Ent. Ital. Bol. 28: 86, ☿.

molesta molesta (Say). Canada, all U. S. The most common and widely distributed form of the subgenus. An important economic species.
Myrmica molesta Say, 1836. Boston Jour. Nat. Hist. 1: 293. ♀.
Myrmica minuta Say, 1836. Boston Jour. Nat. Hist. 1: 294. ☿.
Myrmica* (*Tetmamorium* (!)) *exigua Buckley, 1867. Ent. Soc. Phila. Proc. 6: 342. ☿; "♀"=♂.
Solenopsis debilis Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 461. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 377–378.—Hayes, 1920. Kans. Agr. Expt. Sta. Tech. Bul. 7: 1–54.
Taxonomy: W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 584. ☿ ♀ ♂.
Economics: McColloch and Hayes, 1916. Jour. Econ. Ent. 9: 23–38.—Metcalf and Flint, 1939. Destructive and Useful Insects, p. 770.

molesta validiuscula Emery. Wash., Calif., Idaho, Ariz., Utah, N. Mex. This is apparently the common form in the extreme western states. An important economic species.
Solenopsis molesta var. ***validiuscula*** Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 278. ☿.
Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 72.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 430, ☿.
Economics: Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 21-22.

molesta var. **castanea** W. M. Wheeler. Colo. (Woodland Park, 8,500 ft.).
Solenopsis molesta var. ***castanea*** W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 430. ☿.

pergandei Forel. N. C. to Fla., west to La.
Solenopsis Pergandei Forel, 1901. Soc. Ent. Belg. Ann. 45: 343. ☿ ♀ ♂.
Biology: M. R. Smith, 1931. Ent. News 42: 20.—M. R. Smith, 1944. Fla. Ent. 27: 15.
Taxonomy: M. R. Smith, 1931. Ent. News 42: 20. ☿.

picta Emery. S. C., Ga., Fla., La.
Solenopsis picta Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 278. ☿.
Biology: W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 10.
Taxonomy: M. R. Smith, 1942. Ent. Soc. Wash. Proc. 44: 211, ☿.

picta var. **moerens** W. M. Wheeler. Tex. (Victoria).
Solenopsis picta var. ***moerens*** W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 393. ☿.

pilosula W. M. Wheeler. Tex. (Alice).
Solenopsis pilosula W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 426. ☿ ♂.

rosella Kennedy. Ont. (Pelee Isl.).
Solenopsis rosella Kennedy, 1938. Canad. Ent. 70: 232. ☿ ♀ ♂.

salina W. M. Wheeler. Tex. (Ft. Davis); Mexico.
Solenopsis salina W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 427. ☿.

tennesseensis M. R. Smith, n. name. Fla., Tenn., Miss., Tex.
Solenopsis (Diplorhoptrum) longiceps M. R. Smith, 1942. Ent. Soc. Wash. Proc. 44: 210. ☿. Preocc. by Forel, 1907.

texana carolinensis Forel. N. C., Ohio.
Solenopsis texana race ***carolinensis*** Forel, 1901. Soc. Ent. Belg. Ann. 45: 345. ☿ ♀ ♂.
Biology: L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 92.

texana catalinae W. M. Wheeler. Calif. (Catalina Isl.).
Solenopsis texana catalinae W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 269. ☿ ♀.
Taxonomy: W. M. Wheeler, 1905. South. Calif. Acad. Sci. Bul. 4: 60, ☿ ♀.

texana texana Emery. Kans., Tex.
Solenopsis pollux var. ***texana*** Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 278. ☿.
Biology: Mitchell and Pierce, 1912. Ent. Soc. Wash. Proc. 14: 70.—Hayes, 1925. Ent. News 36: 41.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 430–431, ☿ ♀ ♂.

texana truncorum Forel. N. C. (Faisons).
Solenopsis texana race ***truncorum*** Forel, 1901. Soc. Ent. Belg. Ann. 45: 346. ☿ ♀.

Unrecognized Form of Subgenus Diplorhoptrum Mayr

Solenopsis madara Roger, 1863. Berlin. Ent. Ztschr. 7: 200. ☿ ♀.

Genus EPOECUS Emery

Epoecus Emery, 1892. Soc. Ent. France Bul. 61: CCLXXVI.
Type: ***Epoecus pergandei*** Emery. Monob.
Revision: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 272–274.

This genus is represented by a single form, *pergandei*, which was collected from a colony of *Monomorium minimum* (Buckl.). The host colony contained only winged males and winged females. As only males and females of *Epoecus* were noted, the ants of this genus are supposed to be workerless and parasitic.

pergandei Emery. D. C. See remarks under the genus.
Epoecus pergandei Emery, 1892. Soc. Ent. France Bul. 61: CCLXXVI. ♀ ♂.

Genus ANERGATES Forel

Anergates Forel, 1874. Schweiz. Naturf. Gesell. Denkschr. 26: 93.
Type: ***Myrmica atratula*** Schenck. Monob.

Palearctic. Presumably introduced into the United States with the host ant. A permanent parasite on colonies of *Tetramorium caespitum* (L.). Parasitized colonies of that ant are rare, and contain only workers of the host species. Workers are entirely lacking in *Anergates*. The virgin females of *Anergates* are winged, the males, wingless, pupoid. As the parasites are entirely dependent on the host for food and care, a colony dies out when all the host workers die.

atratulus (Schenck). Conn., Del., Va. Collected on only one occasion in each of the three states.
Myrmica atratula Schenck, 1852. Nassau. Ver. f. Naturk. Jahrb. 8: 91. ♀.
Biology: W. M. Wheeler, 1923. Social Life among the Insects, pp. 215–219.—W. M. Wheeler, 1926. Ants. pp. 498–504.—Donisthorpe, 1927. British Ants, pp. 96–102.
Taxonomy: Emery, 1922. *In* Wytsman, Gen. Ins., fasc. 174, pp. 205–206, ♀ ♂.—Donisthorpe, 1927. British Ants, pp. 96–97, ♀ ♂.

friedlandi Creighton. N. J. (Englewood).
Anergates friedlandi Creighton, 1934. Psyche 41: 193. ♀. This form may eventually prove to be a synonym of *atratulus*.

Genus EREBOMYRMA W. M. Wheeler

Erebomyrma W. M. Wheeler, 1903. Biol. Bul. 4: 138.
Type: ***Erebomyrma longii*** W . M. Wheeler. Monob.

The only known Nearctic species has been collected on only one occasion (in Texas). It is believed to live as a thief ant in the nests of other ants and termites.

longii W. M. Wheeler. Tex. (Denton).
Erebomyrma Longii W. M. Wheeler, 1903. Biol. Bul. 4: 140. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 423.—W. M. Wheeler, 1926. Ants, pp. 113, 140, 152, 158–159, 427–428.
Taxonomy: Mann, 1926. Psyche 33: 104, ☿.—W. M. Wheeler, 1936. Amer. Acad. Arts and Sci. Proc. 71: 197, ☿ ♀.

Genus MYRMECINA Curtis

Myrmecina Curtis, 1829. Brit. Ent., v. 6, p. 265.
Type: (***Myrmecina latreillii*** Curtis)=***Formica graminicola*** Latreille. Monob.
Revisions: Emery, 1895 Zool. Jahrb. Abt. f. System. 8: 271.—M. R. Smith, 1948. Ent. Soc. Wash. Proc. 50: 238–240.—Brown, 1949. Psyche 56: 44–47.

americana americana Emery. Eastern half of U. S.; also reported from Ariz. and Mont.

Myrmecina latreillei americana Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 271. ☿.

Myrmecina latreillei americana var. *brevispinosa* Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 271. ☿ ♀ ♂.

Myrmecina graminicola quadrispina J. Enzmann, 1946. N. Y. Ent. Soc. Jour. 54: 13. ☿.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 373, 376.—W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 332, 335–336.—Talbot, 1934. Ecology 15: 420, 427, 428.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 274, 278–279, 304.

Taxonomy: Cole, 1940. Amer. Midland Nat. 24: 39, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 290.

americana texana W. M. Wheeler, n. status. Tex. (Austin).

Myrmecina graminicola texana W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 422. ☿.

Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 502.

Taxonomy: M. R. Smith, 1948. Ent. Soc. Wash. Proc. 50: 239, ☿.

californica M. R. Smith. Calif. (Santa Barbara).

Myrmecina californica M. R. Smith, 1948. Ent. Soc. Wash. Proc. 50: 239. ☿.

Genus MACROMISCHA Roger

Macromischa Roger, 1863. Berlin. Ent. Ztschr. 7: 184.

Type: *Macromischa purpurata* Roger. Desig. by W. M. Wheeler, 1911.

Macromischa subg. *Croesomyrmex* Mann, 1920. Amer. Mus. Nat. Hist. Bul. 42: 408.

Type: *Macromischa* (*Croesomyrmex*) *wheeleri* Mann. Orig. desig.

Macromischa subg. *Antillaemyrmex* Mann, 1920. Amer. Mus. Nat. Hist. Bul. 42: 408.

Type: *Macromischa* (*Antillaemyrmex*) *terricola* Mann. Orig. desig.

Revisions: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 138–142.—Mann, 1920. Amer. Mus. Nat. Hist. Bul. 42: 407–424.—W. M. Wheeler, 1931. Harvard Univ., Mus. Compar. Zool. Bul. 72: 3–34.—W. M. Wheeler, 1937. Harvard Univ., Mus. Compar. Zool. Bul. 81: 441, 449–458, 463–465.—M. R. Smith, 1939. Ent. Soc. Amer. Ann. 32: 502–509.

floridana (W. M. Wheeler). Fla. (Paradise Key).

Antillaemyrmex floridanus W. M. Wheeler, 1931. Harvard Univ., Mus. Compar. Zool. Bul. 72: 27. ☿.

Biology: W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 11.

polita M. R. Smith. Ariz.

Macromischa polita M. R. Smith, 1939. Ent. Soc. Amer. Ann. 32: 503, 506. ☿.

subditiva W. M. Wheeler. La., Tex.

Macromischa subditiva W. M. Wheeler, 1903. Psyche 10: 99. ☿.

Biology: Mitchell and Pierce, 1912. Ent. Soc. Wash. Proc. 14: 73.—M. R. Smith, 1939. Ent. Soc. Amer. Ann. 32: 506.

Genus LEPTOTHORAX Mayr

Subgenus NESOMYRMEX W. M. Wheeler

Leptothorax subg. *Goniothorax* Emery, 1896. Soc. Ent. Ital. Bol. 28: 26, 58. Preocc.

Type: *Leptothorax vicinus* Mayr. Desig. by W. M. Wheeler, 1911.

Nesomyrmex W. M. Wheeler, 1910. Amer. Mus. Nat. Hist. Bul. 28: 259.

Type: *Nesomyrmex clavipilis* W. M. Wheeler. Monob.

Leptothorax subg. *Caulomyrma* Forel, 1914. Soc. Vaud. des Sci. Nat. Bul. 50: 233.

Type: *Leptothorax echinatinodis* Forel. Orig. desig.

The only known species in the Nearctic Region forms small colonies in the crevices of plants and trees.

wilda M. R. Smith. Tex. (Brownsville); Mexico.
Leptothorax (Goniothorax) wilda M. R. Smith, 1943. Ent. Soc. Wash. Proc. 45: 155. ☿ ♀.

Subgenus MYRAFANT M. R. Smith

Myrafant M. R. Smith, 1950. Psyche 57: 29.
Type: *Leptothorax curvispinosus* Mayr. Orig. desig.
Revisions: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 317–318, 320–323.—W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 215, 224, 232–256.

andrei Emery. Calif.
Leptothorax (Leptothorax) andrei Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 318, 322. ☿.
Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 73.

bradleyi W. M. Wheeler. Fla., Ga.
Leptothorax bradleyi W. M. Wheeler, 1913. Psyche 20: 113. ☿.

curvispinosus ambiguus Emery. Que. to Va., west to S. Dak. and Nebr.
Leptothorax (Leptothorax) curvispinosus ambiguus Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 317, 320. ☿.
Biology: Sturtevant, 1925. Psyche 32: 314.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 287.
Taxonomy: W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 588–589, ☿.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 97, ☿ ♀ ♂.

curvispinosus ambiguus var. **pinetorum** L. G., Jr., and R. G. Wesson. N. J., Ohio, Pa.
Leptothorax ambiguus var. *pinetorum* L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 97. ☿ ♀ ♂.

curvispinosus curvispinosus Mayr. Maine to Fla., west to Iowa, Kans. and Tex. Enslaved by: *Harpagoxenus americanus* (Emery) and *Leptothorax duloticus* L. G. Wesson, Jr.
Leptothorax curvispinosus Mayr, 1866. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 53: 508. ☿.
Stenamma gallarum Patton, 1879. Amer. Nat. 13: 126. ☿ ♀.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 385.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 289, 305.—Headley, 1943. Ent. Soc. Amer. Ann. 36: 743–753.
Taxonomy: Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 451, 453, ☿ ♀.—Cole, 1940. Amer. Midland Nat. 24: 56–57, ☿.
Physiology: L. G. Wesson, Jr., 1940. Psyche 47: 105–111.

eldoradensis W. M. Wheeler. Calif., Wash., Idaho.
Leptothorax eldoradensis W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 414. ☿.
Biology: Cole, 1934. Psyche 41: 222.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 73.

fortinodis Mayr. Mass. to Fla., west to Kans. and Tex.; ?Idaho.
Leptothorax fortinodis Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 451. ☿ ♀.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 385.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 90, 94–96.
Taxonomy: L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 94–96.—Cole, 1940. Amer. Midland Nat. 24: 56, ☿.

fortinodis var. **gilvus** W. M. Wheeler. Tex. (Austin).
Leptothorax fortinodis var. *gilvus* W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 235. ☿ ♀.

fortinodis var. **melanoticus** W. M. Wheeler. S. C., Ohio, Mich., Ind., Ill., Tenn., Iowa, La., Nebr.
Leptothorax fortinodis var. *melanoticus* W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 235. ☿ ♀.
Biology: W. M. Wheeler, 1916. Ind. Acad. Sci. Proc. 26: 461.
Taxonomy: L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 94–96, ☿ ♀ ♂.

foveata M. R. Smith. Ill. (Plainfield). In a nest of *Aphaenogaster fulva aquia* (Buckl.) in a roadside ditch.
Leptothorax foveata M. R. Smith, 1934. Psyche 41: 211. ☿.

furunculus W. M. Wheeler. Colo. (Manitou).
Leptothorax furunculus W. M. Wheeler, 1909. N. Y. Ent. Soc. Jour. 17: 82. ☿.

gallae M. R. Smith. Calif. Commonly collected from the canyon live oak, *Quercus chrysolepis* Liebm., often from twig galls made by *Heteroecus pacificus* (Ashm.), *H. sanctaeclarae* (Fullaway), and *Disholcaspis truckeensis* (Ashm.).
Leptothorax (Leptothorax) gallae M. R. Smith, 1949. Psyche 56: 112. ☿.

longispinosus iowensis Buren. Iowa.
Leptothorax (Leptothorax) longispinosus laeviceps Buren, 1944. Iowa State Col. Jour. Sci. 18: 286. ☿. Preocc.
Leptothorax longispinosus iowensis Buren, 1945. Ent. Soc. Wash. Proc. 47: 288. N. name.

longispinosus longispinosus Roger. Ont. to N. C., west to Ill. Enslaved by: *Harpagoxenus americanus* (Emery) and *Leptothorax duloticus* Wesson.
Leptothorax longispinosus Roger, 1863. Berlin, Ent. Ztschr. 7: 180. ☿.
Biology: W. M. Wheeler, 1926. Ants, pp. 212, 222, 495, 504.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 274, 289, 305.—Headley, 1943. Ent. Soc. Amer. Ann. 36: 743–753.
Taxonomy: W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 588, ☿.—Cole, 1940. Amer. Midland Nat. 24: 56–57, ☿.

melanderi W. M. Wheeler. Idaho, Wash.
Leptothorax melanderi W. M. Wheeler, 1909. N. Y. Ent. Soc. Jour. 17: 81. ☿.

minutissimus M. R. Smith. D. C.
Leptothorax minutissimus M. R. Smith, 1942. Ent. Soc. Wash. Proc. 44: 59. ♀.

neomexicanus W. M. Wheeler. Ariz., N. Mex.
Leptothorax neomexicanus W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 223, 248. ☿.
Biology: W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 341.

nevadensis nevadensis W. M. Wheeler. Nev., Utah.
Leptothorax nevadensis W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 224, 252. ☿ ♀ ♂.
Biology: Cole, 1942. Amer. Midland Nat. 28: 370.
Taxonomy: W. M. Wheeler, 1909. N. Y. Ent. Soc. Jour. 17: 81, ☿.

nevadensis rudis W. M. Wheeler. Calif., Oreg.
Leptothorax nevadensis rudis W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 508. ☿ ♀.
Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 73.

nitens nitens Emery. Colo., Utah, Ariz., Calif.
Leptothorax (Leptothorax) nitens Emery, 1895. Zool. Jahrb. Abt. f. System. 8:318, 322. ☿.
Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 73.
Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 369–370, ☿.

nitens occidentalis W. M. Wheeler. Wash. (Friday Harbor).
Leptothorax nitens occidentalis W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 223, 245. ☿.

nitens var. **heathii** W. M. Wheeler. Calif. (Pacific Grove).
Leptothorax nitens var. *heathii* W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 223, 245. ☿.
Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 73.

nitens var. **mariposa** W. M. Wheeler. Calif. (Tenaya Canyon in Yosemite Valley).
Leptothorax nitens var. *mariposa* W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 507. ☿.
Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 73–74.

obturator W. M. Wheeler. Tex. (Austin).
Leptothorax obturator W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 224, 249. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1903. Amer. Mus. Nat. Hist. Bul. 19: 663–664.—W. M. Wheeler, 1926. Ants, pp. 208–209.

rugatulus annectens W. M. Wheeler. Colo. (Boulder).
Leptothorax curvispinosus annectens W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 242. ☿.

rugatulus brunnescens W. M. Wheeler. Colo. (Creede Co.).
Leptothorax rugatulus brunnescens W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 510. ☿.

rugatulus dakotensis G. C. and E. W. Wheeler. N. Dak. (Sentinel Butte).
Leptothorax rugatulus dakotensis G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 247. ☿.

ruga'ulus rugatulus Emery. N. Dak. and S. Dak., west to B. C. and Ariz.
Leptothorax (Leptothorax) rugatulus Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 317, 321. ☿.
Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 509.—Cole, 1934. Psyche 41: 222.
Taxonomy: W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 223, 241, ☿.—Cole, 1942. Amer. Midland Nat. 28: 369, ☿.

rugatulus var. **cockerelli** W. M. Wheeler. Ariz., N. Mex.
Leptothorax curvispinosus rugatulus var. *Cockerelli* W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 241. ☿ ♀.

rugatulus var. **mediorufus** W. M. Wheeler. Oreg., Calif.
Leptothorax rugatulus var. *mediorufus* W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 510. ☿ ♀.

schaumi Roger. N. Y. to Va., west to Kans. and Tex. Commonly nests in the bark of trees, especially oaks.
Leptothorax Schaumi Roger, 1863. Berlin. Ent. Ztschr. 7: 180. ☿.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 385.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 94.
Taxonomy: W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 223, 232–233, ☿ ♂.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 95–96, ☿ ♀ ♂.

schmittii W. M. Wheeler. Colo. (Canyon City).
Leptothorax Schmittii W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 223, 242. ☿.

terrigena W. M. Wheeler. Tex.
Leptothorax terrigena W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 224, 254. ☿ ♀.

texanus davisi W. M. Wheeler. Mass., N. Y., N. J., Fla.
Leptothorax texanus davisi W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 385. ☿ ♀.

texanus texanus W. M. Wheeler. N. C., Ohio, Mich., Ill., Miss., Minn., Mo., La , Okla., Tex., Ariz.
Leptothorax texanus W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 223, 245. ☿ ♀ ♂.
Biology: M. R. Smith, 1932. Ent. News 43: 160.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 98.
Taxonomy: M. R. Smith, 1932. Ent. News 43: 160, ☿.—R. E. Gregg, 1944. Ent. Soc. Amer. Ann. 37: 466, ☿.

tricarinatus Emery. Iowa, S. Dak.
Leptothorax (Leptothorax) tricarinatus Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 318, 321. ☿.
Biology: Buren, 1944. Iowa State Col. Jour. Sci. 18: 288.
Taxonomy: W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 223, 247–248, ☿. —Buren, 1944. Iowa State Col. Jour. Sci. 18: 286, 288, ☿.

wheeleri M. R. Smith. N. C., Ga., Fla., Ohio, Tenn., Ala., Miss.
Leptothorax wheeleri M. R. Smith, 1929. Ent. Soc. Amer. Ann. 22: 547. ☿ ♀.
Biology: M. R. Smith, 1931. Ent. News 42: 18.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 90, 96.
Taxonomy: M. R. Smith, 1931. Ent. News 42: 18, ☿.

Subgenus DICHOTHORAX Emery

Leptothorax subg. *Dichothorax* Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 323.
Type: *Leptothorax (Dichothorax) pergandei* Emery. Desig. by W. M. Wheeler, 1911.
Revisions: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 318, 323–324.—W. M. Wheeler, 1903.Acad. Nat. Sci. Phila. Proc. 55: 224, 256–260.

Apparently exclusively Nearctic. Known to occur in the U. S. from Maryland and Florida to Nebraska and Texas.

pergandei flavus M. R. Smith. Miss., Ark.
Leptothorax (Dichothorax) pergandei flavus M. R. Smith, 1929. Ent. Soc. Amer. Ann. 22: 549. ☿ ♀.
Biology: M. R. Smith, 1931. Ent. News 42: 18.

pergandei floridanus Emery. N. C., S. C., Ga., Fla., Tenn., Miss.
Leptothorax (Dichothorax) floridanus Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 318, 324. ☿.
Biology: Dennis, 1938. Ent. Soc. Amer. Ann. 31: 290, 305.
Taxonomy: M. R. Smith, 1931. Ent. News 42: 18–19, ☿.

pergandei floridanus var. **spinosus** M. R. Smith. Miss. (Summit).
Leptothorax (Dichothorax) pergandei floridanus var. *spinosus* M. R. Smith, 1929. Ent. Soc. Amer. Ann. 22: 551. ☿.

pergandei pergandei Emery. D. C. to Ga., west to Nebr. and Tex.
Leptothorax (Dichothorax) pergandei Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 318, 323. ☿.
Leptothorax (Dichothorax) manni L. G. Wesson, Jr., 1935. Ent. News 46: 208. ☿ ♀ ♂. Preocc.
Biology: Dennis, 1938. Ent. Soc. Amer. Ann. 31: 290.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 288.
Taxonomy: W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 224, 256–259, ☿ ♀. M. R. Smith, 1924. Ent. News 35: 50, ☿.—Cole, 1940. Amer. Midland Nat. 24: 56, 58, ☿.

Subgenus LEPTOTHORAX Mayr

Leptothorax Mayr, 1855. Zool.-Bot. Gesell. Wien, Verh. 5: 431.
Type: *Formica acervorum* Fabricius. Desig. by Bingham, 1903.
Mychothorax Ruzsky, 1904. Sapiski Imp. Russ. Geog. Obschtsch. 41: 288.
Type: *Formica acervorum* Fabricius. Orig. desig.

Holarctic. In the United States confined largely to the northern and western states. The ants live in living and dead trees, logs, stumps, decaying wood, soil, insect galls, and nests of other ants. Colonies are small to moderate in size. Many forms are free living but some are inquilines in the nests of other ants.

acervorum canadensis Provancher. Labrador, Canada, north. U. S. and Alaska; Colo. *L. acervorum acervorum* (Fabricius) occurs in Europe, Russia, Central Asia. Boreal in distribution. Enslaved by *Harpagoxenus canadensis* M. R. Smith. This ant has been found at latitude 69° 22′ N., the northernmost record of any New World ant.
Leptothorax canadensis Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 245. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 621.—G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 247.—R. E. Gregg, 1946. Amer. Midland Nat. 35: 748.
Taxonomy: W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 223, 225–227, ☿ ♀.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 588, ☿.

acervorum canadensis var. **calderoni** Forel. Calif. (Lake Tahoe).
Leptothorax (Mychothorax) acervorum race *canadensis* var. *Calderoni* Forel, 1914. Deut. Ent. Ztschr., p. 617. ☿ ♀.
Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 73.
Taxonomy: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 513. ☿.

acervorum canadensis var. **convivialis** W. M. Wheeler. Newfoundland, N. S., Conn., Wis., N. Mex.

Leptothorax acervorum canadensis var. ***convivialis*** W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 228. ☿ ♀.

Leptothorax canadensis obscurus Viereck, 1903. Amer. Ent. Soc. Trans. 29: 72. ☿.

acervorum canadensis var. **kincaidi** Pergande. Alaska (Metlakahtla).

Leptothorax yankee var. ***kincaidi*** Pergande, 1900. Wash. Acad. Sci. Proc. 2: 520. ☿ ♀.

Taxonomy: W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 228–229, ☿ ♀.—W. M. Wheeler, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 18, 21, ☿.

acervorum canadensis var. **yankee** Emery. Mich., N. Dak., S. Dak., Colo., Alta., Utah, B. C., Wash.

Leptothorax (Leptothorax) canadensis var. ***yankee*** Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 317, 319. ☿ ♀.

Biology: Cole, 1942. Amer. Midland Nat. 28: 369–370.—G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 248.

Taxonomy: W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 227, ☿ ♀.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 512–513, ☿ ♀ ♂.

acervorum crassipilis W. M. Wheeler. Colo. (Colorado Springs).

Leptothorax (Mychothorax) acervorum crassipilis W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 513. ☿ ♀ ♂.

diversipilosus M. R. Smith. Wash. (Fort Lewis). Inquiline in nest of *Formica rufa melanotica* Emery. Unpublished data indicate that this ant is very closely related in both habits and structure to the European *Formicoxenus nitidulus* (Nylander). Like that species, *diversipilosus* has normal workers and females and forms intermediate between these, as well as apterous, ergatoid males.

Leptothorax (Mychothorax) diversipilosus M. R. Smith, 1939. Ent. Soc. Wash. Proc. 41: 179. ☿, ergatoid ♀.

duloticus L. G. Wesson, Jr. Ohio (near Jackson). This form enslaves *L. (Myrafant) longispinosus longispinosus* Roger and *L. (Myrafant) curvispinosus curvispinosus* Mayr in a manner similar to *Harpagoxenus americanus* (Emery) but the habits are more primitive.

Leptothorax (Mychothorax) duloticus L. G. Wesson, Jr., 1937. Ent. News 48: 125. ☿ ♀.

Biology: L. G. Wesson, Jr., 1940. Brooklyn Ent. Soc. Bul. 35: 73–81.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 94.

Taxonomy: L. G. Wesson, Jr. 1940. Brooklyn Ent. Soc. Bul. 35: 81–83, ♂.

emersoni emersoni W. M. Wheeler. Maine, N. H., Mass., Conn. A boreal form. Lives in nests of *Myrmica brevinodis brevinodis* Emery but has not lost the habit of constructing its own nest, rearing its brood, or feeding independently. In addition to workers there are individuals with morphological characters intermediate between those of the worker and the female.

Leptothorax emersoni W. M. Wheeler, 1901. Amer. Nat. 35: 433. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1901. Amer. Nat. 35: 436–438.—W. M. Wheeler, 1903. Jour. Psych. and Neurol. 2: 1–21.—W. M. Wheeler, 1926. Ants, pp. 107, 393, 434–436.

Taxonomy: W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 230–232, ☿ ♀ ♂.

emersoni glacialis W. M. Wheeler. Colo. (Florissant Canyon). Apparently this form never lives alone. Inquiline in nest of *Myrmica brevinodis brevinodis* Emery living in chambers apart from the host, at least during the brood-rearing season. The host workers cannot enter the chambers of the inquiline but the *glacialis* workers mix freely in the *Myrmica* colony, soliciting regurgitated food from the adult members and licking their bodies for the excretions.

Leptothorax emersoni glacialis W. M. Wheeler, 1907. Wis. Nat. Hist. Soc. Bul. (n. s.) 5: 71. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1907. Wis. Nat. Hist. Soc. Bul. (n. s.) 5: 78–83.—W. M. Wheeler, 1926. Ants, pp. 393, 436.

emersoni hirtipilis W. M. Wheeler. Alta. (Banff). An inquiline in the nest of *Myrmica brevinodis brevinodis* Emery.
Leptothorax (Mychothorax) emersoni hirtipilis W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 515. ☿.

hirticornis Emery. N. Dak., S. Dak., Colo., Utah. Apparently an inquiline in the nest of *Formica rufa obscuripes* Forel.
Leptothorax (Leptothorax) hirticornis Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 317, 319. ☿.
Biology: Weber, 1935. Ecol. Monog. 5: 200.—G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 248.
Taxonomy: W. M. Wheeler, 1903. Acad. Nat. Sci. Phila Proc. 55: 223–224, ☿.—M. R. Smith, 1939. Ent. Soc. Wash. Proc. 41: 176–179, ☿, ergatoid ♀.

provancheri Emery. Canada.
Leptothorax (Leptothorax) provancheri Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 317, 320. ☿.
Taxonomy: W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 223, 229, ☿.

muscorum var. **septentrionalis** W. M. Wheeler. Alta., B. C.
Lepthorax (Mychothorax) muscorum var. ***septentrionalis*** W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 511. ☿ ♀ ♂.

muscorum var. **sordidus** W. M. Wheeler. Ariz., Colo., S. Dak., Utah. *L. muscorum muscorum* (Nylander) occurs in Europe and Asia.
Leptothorax muscorum var. ***sordidus*** W. M. Wheeler, 1903. Acad. Nat. Sci. Phila. Proc. 55: 223, 224. ☿.

Genus SYMMYRMICA W. M. Wheeler

Symmyrmica W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 1, 3.
Type: ***Symmyrmica chamberlini*** W. M. Wheeler. Monob.

Nearctic. This genus is represented by a single species.

chamberlini W. M. Wheeler. Utah (near Salt Lake City). Inquiline in nest of ***My****rmica* (*Manica*) *mutica* Emery.
Symmyrmica chamberlini W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 5. ☿ ♀, apterous, ergatoid ♂.
Biology: W. M. Wheeler, 1919. Amer. Philos. Soc. Proc. 58: 22.—W. M. Wheeler, 1926. Ants, pp. 432–434.

Genus HARPAGOXENUS Forel

Tomognathus Mayr, 1861. Die Europäischen Formiciden, pp. 29, 56. Preocc.
Type: ***Myrmica sublaevis*** Nylander. Monob.
Harpagoxenus Forel, 1893. Soc. Ent. Belg. Ann. 37: 167. N. name.
Protomognathus W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 3.
Type: ***Tomognathus americanus*** Emery. Monob.
Revision: M. R. Smith, 1939. Ent. Soc. Wash. Proc. 41: 165–172.

Holarctic. Our two North American forms are not rare but are discontinuously distributed. The ants make slaves of certain species of *Le tothorax*.

americanus (Emery). Mass. to Va., west to Ill. This form makes slaves of *Leptothorax (Myrafant) curvispinosus curvispinosus* Mayr and *L. (M.) longispinosus longispinosus* Roger.
Tomognathus americanus Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 272 ☿.
Biology: Sturtevant, 1927. Psyche 34: 1–9.—Creighton, 1927. Psyche 34: 11–29.—L. G. Wesson, Jr., 1939. Amer. Ent. Soc. Trans. 65: 97–122.
Taxonomy: Creighton, 1927. Psyche 34: 28, ♂.—M. R. Smith, 1939. Ent. Soc. Wash. Proc. 41: 166–168. ☿ ♀ ♂.

canadensis M. R. Smith. Que., N. S., Maine, Mich., Minn. Apparently very closely related to the Palearctic *H. sublaevis* and like that form has ergatoid females in addition to normal workers and females. Its slave is *Leptothorax acervorum canadensis* Prov.

Harpagoxenus canadensis M. R. Smith, 1939. Ent. Soc. Wash. Proc. 41: 168. Ergatoid ♀, ♀.
Biology: R. E. Gregg, 1946. Amer. Midland Nat. 35: 748.
Taxonomy: R. E. Gregg, 1945. Canad. Ent. 77: 74–76, ☿.

Genus TRIGLYPHOTHRIX Forel

Triglyphothrix Forel, 1890. Soc. Ent. Belg. Ann. (C. R.) 34: CVI.
Type: ***Triglyphothrix walshi*** Forel. Monob.
Revision: Bingham, 1903. Fauna British India Hym., v. 2, pp. 172–175.

A single introduced form is now established in a number of localities in the southern states.

striatidens (Emery). S. C., Ga., Fla., Ala., Miss., La. Introduced into the United States.
Tetramorium obesum race ***striatidens*** Emery, 1889. Ann. Mus. Civ. Stor. Nat. Genova 7: 501. ☿.
Biology: W. M. Wheeler, 1916. Jour. Econ. Ent. 9: 566–568.—Donisthorpe, 1927. British Ants, p. 393.—M. R. Smith, 1931. Ent. News 42: 21.
Taxonomy: W. M. Wheeler, 1912. N. Y. Ent. Soc. Jour. 20: 46, ☿.—W. M. Wheeler, 1916. Jour. Econ. Ent. 9: 568–569, ☿.

Genus TETRAMORIUM Mayr

Tetramorium Mayr, 1855. Zool.-Bot. Gesell. Wien, Verh. 5: 423.
Type: ***Formica caespitum*** Linnaeus. Desig. by Girard, 1879.
Tetrogmus Roger, 1857. Berlin, Ent. Ztschr. 1: 10.
Type: (***Tetrogmus caldarius*** Roger) = ***Myrmica simillima*** Smith. Monob.
Revisions: Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 972–977.—Bingham, 1903. Fauna British India Hym., v. 2, pp. 175–189.—Emery, 1916. Soc. Ent. Ital. Bol. 47: 195.—M. R. Smith, 1943. Ent. Soc. Wash. Proc. 45: 1–5.

Peculiar to the Old World, especially the Ethiopian Region. The group contains many important economic forms. All of those occurring in the Nearctic Region are thought to have been introduced.

caespitum (Linnaeus). Europe, Asia, U. S. Most abundant in the states along the Atlantic Seaboard, becoming more sporadically distributed farther inland. An important economic species; infests houses, steals seed from seed beds, gnaws into tubers, roots, and stalks of flowers and vegetables, attends honeydew-excreting insects. The colonies are populous. Host of parasitic ants belonging to the genera *Anergates* and *Strongylognathus*.
Formica caespitum Linnaeus, 1758. Syst. Nat., ed. 10, v. 1, p. 581.
Myrmica (Myrmica) brevinodis var. ***transversinodis*** J. Enzmann, 1946. N. Y. Ent. Soc. Jour. 54: 47. ☿.
Biology: W. M. Wheeler, 1919. Amer. Phil. Soc. Proc. 58: 23–26.—W. M. Wheeler, 1927. Psyche 34: 164–165.—Donisthorpe, 1927. British Ants, pp. 193–198.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 74.
Taxonomy: Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 972, ☿.—Donisthorpe, 1927. British Ants, p. 189, ☿ ♀ ♂.—M. R. Smith, 1943. Ent. Soc. Wash. Proc. 45: 2, ☿.
Economics: L. B. Smith, 1915. Va. Truck Expt. Sta. Bul. 16: 1–15.—Metcalf and Flint, 1939. Destructive and Useful Insects, p. 771.

guineense (Fabricius). Apparently most common in towns and cities in the southern and southeastern states; occasionally found in greenhouses farther north. Pantropical; becoming widely distributed by commerce. Introduced into the United States.
Formica guineensis Fabricius, 1793. Ent. System., v. 2, p. 357. ☿
Biology: Phillips, 1934. (Hawaii Univ.) Expt. Sta. Pineapple Prod. Coop. Assoc. Bul. 15: 23–24.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 851–852.—M. R. Smith, 1943. Ent. Soc. Wash. Proc. 45: 1.
Taxonomy: Emery, 1909. Deut. Ent. Ztschr., p. 695, ☿ ♀ ♂.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 831, 852, ☿.—M. R. Smith, 1943. Ent. Soc. Wash. Proc. 45: 3, ☿.

Economics: Marlatt, 1928. U. S. Dept. Agr. Farmers' Bul. 740: 6.—M. R. Smith, 1943. Ent. Soc. Wash. Proc. 45: 2.

pacificum Mayr. Oriental and Australian Regions. Calif. (Los Angeles Co., introduced into a nursery).

Tetramorium pacificum Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 972, 976. ☿ ♀.

Taxonomy: M. R. Smith, 1943. Ent. Soc. Wash. Proc. 45: 2–3, ☿.

rugiventris M. R. Smith. Ariz. (vicinity of Prescott). Believed to have been introduced with camels or supplies for camels.

Tetramorium rugiventris M. R. Smith, 1943. Ent. Soc. Wash. Proc. 45: 2, 4. ☿.

simillimum (F. Smith). Ga., Fla. Introduced into U. S. Pantropical. Becoming widely distributed by commerce.

Myrmica simillima F. Smith, 1851. List Hym. Brit. Mus., pt. 6, p. 118. ☿.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 101.—M. R. Smith, 1933. Fla. Ent. 17: 24.—Phillips, 1934. (Hawaii Univ. Expt. Sta. Pineapple Prod. Coop. Assoc. Bul. 15: 24.

Taxonomy: Emery, 1909. Deut. Ent. Ztschr., pp. 695–696. ☿ ♀ ♂.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 831, 853, ☿. M. R. Smith, 1943. Ent. Soc. Wash. Proc. 45: 2, ☿.

Economics: Marlatt, 1928. U. S. Dept. Agr. Farmers' Bul. 740: 6.—M. R. Smith, 1933. Fla. Ent. 17: 24.

Genus XIPHOMYRMEX Forel

Tetramorium subg. ***Xiphomyrmex*** Forel, 1887. Schweiz. Ent. Gesell. Mitt. 7: 385.

Type: ***Tetramorium (Xiphomyrmex) kelleri*** Forel. Desig. by W. M. Wheeler, 1911.

Revision: M. R. Smith, 1938. Wash. Acad. Sci. Jour. 28: 126–130.

The three forms in the United States nest in the soil in deserts or in warm, dry open areas. The colonies are apparently small and the workers not aggressive.

spinosus hispidus W. M. Wheeler. Ariz. *T. spinosus spinosus* Pergande occurs in Mexico.

Xiphomyrmex spinosus hispidus W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 415. ☿.

Biology: M. R. Smith, 1938. Wash. Acad. Sci. Jour. 28: 127, 129, ☿.

spinosus insons W. M. Wheeler. Ariz., Tex. This may be the most common form of *Xiphomyrmex* in the United States.

Xiphomyrmex spinosus insons W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 416. ☿ ♀ ♂.

Biology: M. R. Smith, 1938. Wash. Acad. Sci. Jour. 28: 129.

spinosus wheeleri (Forel). Ariz.; Mexico.

Tetramorium (Xiphomyrmex) Wheeleri Forel, 1901. Soc. Ent. Belg. Ann. 45: 128. ☿.

Biology: W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 416.

Taxonomy: W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 416, ☿.—M. R. Smith, 1938. Wash. Acad. Sci. Jour. 28: 127, 130, ☿.

Genus WASMANNIA Forel

Wasmannia Forel, 1893. London Ent. Soc. Trans. 4: 383.

Type: ***Tetramorium*** ? ***auropunctatum*** Roger. Desig. by W. M. Wheeler, 1911.

Hercynia J. Enzmann, 1947. N. Y. Ent. Soc. Jour. 55: 43. Preocc.

Type: ***Hercynia panamana*** J. Enzmann. Monob.

auropunctata (Roger). Calif., Fla.; Cent. and So. Amer., Mexico and the W. Indies. Introduced into U. S. Nests in the soil freely or under cover, also in wood. Attends honeydew-excreting insects. An important economic species; stings severely, infests houses.

Tetramorium ? ***auropunctatum*** Roger, 1863. Berlin. Ent. Ztschr. 7: 182. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1929. Psyche 36: 89–90.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 854.—Spencer, 1941. Fla. Ent. 24: 6–14.
Taxonomy: M. R. Smith, 1929. Jour. Econ. Ent. 22: 243, ☿.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 831, 854, ☿.
Economics: Fernald, 1947. Jour. Econ. Ent. 40: 428.—Osburn, 1948. Fla. Ent. 31: 11–15.

Genus PARACRYPTOCERUS Emery

Subgenus PARACRYPTOCERUS Emery

Cryptocerus subg. ***Paracryptocerus*** Emery, 1915. Soc. Ent. France Bul., p. 192.
Type: ***Cryptocerus spinosus*** Mayr. Orig. desig.

The subgenus *Paracryptocerus* is not known to occur in the Nearctic Region.

Subgenus HARNEDIA M. R. Smith

Paracryptocerus subg. ***Harnedia*** M. R. Smith, 1949. Psyche 56: 20.
Type: ***Cryptocerus umbraculatus*** Fabricius. Orig. desig.
Revision: M. R. Smith, 1947. Ent. Soc. Wash. Proc. 49: 34–40.

Mainly Neotropical with slight extensions into the Nearctic Region. General habits similar to those of the subgenus *Cyathomyrmex*. Only two species are known to occur in the United States.

rohweri (W. M. Wheeler). Ariz.
Cryptocerus (Cyathocephalus) rohweri W. M. Wheeler, 1916. New England Zool. Club Proc. 6: 32. ☿ ♀.
Biology and taxonomy: M. R. Smith, 1947. Ent. Soc. Wash. Proc. 49: 34–37. ☿ ♀ ♀.

texanus (Santschi). Tex.; Mexico.
Cryptocerus texanus Santschi, 1915. Soc. Ent. France Bul., p. 208. ☿ ♀.
Biology and taxonomy: M. R. Smith, 1947. Ent. Soc. Wash. Proc. 49: 37–40, ☿ ♀ ♂.

Subgenus CYATHOMYRMEX Creighton

Cyathocephalus Emery, 1915. Soc. Ent. France Bul., p. 192. Preocc.
Type: ***Cryptocerus pallens*** Klug. Orig. desig.
Cyathomyrmex Creighton, 1933. Psyche 40: 98. N. name.
Revision: M. R. Smith, 1947. Ent. Soc. Wash. Proc. 49: 29–33.

Distribution mainly Neotropical with a slight extension into the Nearctic Region (southern Florida). Arboreal in habit, forming small colonies in cavities of plants, especially twigs. Food largely honeydew and the flesh of small arthropods. The soldier is believed to keep intruders from the nest by blocking the entrance hole with its head.

varians (F. Smith). Fla.; Cent. Amer., W. Indies.
Cryptocerus varians F. Smith, 1876. London Ent. Soc. Trans., p. 606. ☿.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 104.—W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 11.—M. R. Smith, 1947. Ent. Soc. Wash. Proc. 49: 33.
Taxonomy: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 102–104 ☿ ♀ ♀ ♂.—M. R. Smith, 1947. Ent. Soc. Wash. Proc. 49: 30–33, ☿ ♀ ♀ ♂.

Genus STRUMIGENYS F. Smith

Subgenus STRUMIGENYS F. Smith

Strumigenys F. Smith, 1860. Jour. Ent. (London) 1: 72.
Type: ***Strumigenys mandibularis*** F. Smith. Monob.
Revisions: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 325–326.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 145–147.—M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 688–691.

S. (S.) louisianae, our only Nearctic form of this subgenus, appears to be confined mainly to the southern section of the United States. It nests in the soil beneath objects, in rotting wood such as stumps and logs, in plant cavities, etc. The colonies are small, seldom composed of more than a hundred or so individuals. The ants are thought to feed largely on insects, especially Collembola.

louisianae Roger. N. C. to Fla., west to Ariz.; Cent. Amer., W. Indies. General habits as mentioned under the subgenus.

Strumigenys Louisianae Roger, 1863. Berlin. Ent. Ztschr. 7: 211. ☿.

Strumigenys unispinulosa Emery, 1890. Soc. Ent. Ital. Bol. 22: 67. ☿ ♀.

Strumigenys (Strumigenys) louisianae laticephala M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 688, 690. ☿.

Biology: M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 690–691.—Creighton, 1937. Psyche 44: 97–109.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 269, 291, 305.

Taxonomy: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 325–326, ☿ ♀.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 147, ☿ ♀.—M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 688–691, ☿.—Haug, 1932. Ent. Soc. Amer. Ann. 25: 170–172, ♂.

Genus SMITHISTRUMA Brown

Subgenus WESSONISTRUMA Brown

Smithistruma subg. ***Wessonistruma*** Brown, 1948. Amer. Ent. Soc. Trans. 74: 106.

Type: ***Strumigenys pergandei*** Emery. Orig. desig.

Revisions: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 325–327.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 148.—M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 691, 697–699.—L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 110.

This subgenus includes two forms, both of which are exclusively Nearctic. These ants nest in small colonies in the soil beneath cover and in rotten logs and stumps.

angulata (M. R. Smith). Ala., Ill., Miss.

Strumigenys (Cephaloxys) angulata M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 691, 697. ☿.

Biology: M. R. Smith, 1932. Ent. News 43: 158.

Taxonomy: M. R. Smith, 1932. Ent. News 43: 157–158, ☿.—L. G., Jr., and R. . Wesson, 1939. Psyche 46: 110. ☿.

pergandei (Emery). Ont. to N. C., west to Iowa.

Strumigenys pergandei Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 325. ☿ ♀ ♂.

Biology: M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 687, 699.—Kennedy and Schramm, 1933. Ent. Soc. Amer. Ann. 26: 95–98, 100.—L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 91–92.

Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 148, ☿ ♀.—M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 691, 698–699, ☿.—L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 110, ☿.

Subgenus SMITHISTRUMA Brown

Smithistruma Brown, 1948. Amer. Ent. Soc. Trans. 74: 104–106.

Type: ***Strumigenys pulchella*** Emery. Orig. desig.

Revisions: Mayr. 1887. Zool.-Bot. Gesell. Wien, Verh. 37: 571.—Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 325–329.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 148.—M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 686–710.—L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 91–112.

Almost cosmopolitan. The Nearctic forms nest in small colonies in the soil, or humus, usually beneath objects; also in decayed wood,

cavities of plants, and nuts on the ground. Nests are often located near or within colonies of other ants. It has been assumed that members of this group are thief ants. The Wesson brothers have definitely found some of the forms predaceous on collembolans.

abdita (L. G., Jr., and R. G. Wesson). Ind., Ohio, Pa.
Strumigenys (Cephaloxys) abdita L. G., Jr., and R. G. Wesson 1939. Psyche 46: 106, 110. ☿.

bimarginata (L. G., Jr., and R. G. Wesson). Ohio, Ill.
Strumigenys (Cephaloxys) bimarginata L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 95, 109. ☿.

brevisetosa (M. R. Smith). N. C., Ala., Miss.
Strumigenys (Cephaloxys) clypeata var. ***brevisetosa*** M. R. Smith, 1935. Ent. Soc. Amer. Ann. 28: 215. ☿.
Taxonomy: L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 108. ☿.

bunki Brown. Ga., Fla., La., Miss.
Smithistruma (Smithistruma) bunki Brown 1950. Amer. Ent. Soc. Trans. 76: 41. ☿.

californica Brown. Calif. (Claremont). Formerly recorded as *rostrata*. ***Smithistruma (Smithistruma) californica*** Brown, 1950. Amer. Ent. Soc. Trans. 76: 40. ♀.

clypeata (Roger). N. J. to Fla., west to Ill. and Tex.
Strumigenys clipeata (!) Roger, 1863. Berlin. Ent. Ztschr. 7: 213. ☿.
Biology: M. R. Smith, 1932. Ent. News. 43: 159.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 291, 305.—L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 93–94.
Taxonomy: Mayr, 1887. Zool.-Bot. Gesell. Wien, Verh. 37: 571, ☿ ♀.—Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 326, 328, ☿ ♀ ♂.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 148, ☿ ♀.—M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 691, 699–700, ☿.—L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 109. ☿.

creightoni (M. R. Smith). Ala., D. C.
Strumigenys (Cephaloxys) creightoni M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 692, 705. ☿.
Taxonomy: L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 110. ☿.

dietrichi (M. R. Smith). Md. to Fla., west to Ill. and La.
Strumigenys (Cephaloxys) dietrichi M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 691, 696. ☿.
Biology: L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 93.—Kennedy and Schramm, 1933. Ent. Soc. Amer. Ann. 26: 95–96, 100–101.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 270, 272–273, 291, 305.
Morphology: Kennedy and Schramm, 1933. Ent. Soc. Amer. Ann. 26: 101–104.
Taxonomy: M. R. Smith, 1932. Ent. News 43: 159, ☿.—L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 108, ☿.

filirrhina Brown. N. C. (Williamston).
Smithistruma (Smithistruma) filirrhina Brown, 1950. Amer. Ent. Soc. Trans. 76: 37. ☿.

filitalpa Brown. Ark. (Pike Co.).
Smithistruma (Smithistruma) filitalpa Brown, 1950. Amer. Ent. Soc. Trans. 76: 39. ☿.

laevinasis (M. R. Smith). Va., Ill., Tenn., Miss.
Strumigenys (Cephaloxys) clypeata var. ***laevinasis*** M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 691, 701. ☿.
Biology: M. R. Smith, 1932. Ent. News 43: 159.
Taxonomy: M. R. Smith, 1932. Ent. News 43: 158, ☿—.L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 109, ☿.

margaritae (Forel). Ala., Tex.; W. Indies. This may be an introduced or "tramp" species.
Strumigenys margaritae Forel, 1893. London Ent. Soc. Trans., p. 378. ☿ ♀ ♂.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 148, ☿ ♀.—M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 691, 692–693, ☿.—L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 108. ☿.

missouriensis (M. R. Smith). N. Y., Va., N. C., Ohio, Miss., Mo.
Strumigenys (*Cephaloxys*) *missouriensis* M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 691, 701. ☿.
Strumigenys (*Cephaloxys*) *sculpturata* M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 692, 706. ☿.

ohioensis (Kennedy and Schramm). Va., N. C., Ohio, Ill., Tenn., La., Ark.
Strumigenys ohioensis Kennedy and Schramm, 1933. Ent. Soc. Amer. Ann. 26: 98. ☿.
Strumigenys (*Cephaloxys*) *manni* L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 97. ☿.
Biology: L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 98.

ornata (Mayr). Md. to Fla., west to Ill. and Miss.
Strumigenys ornata Mayr, 1887. Zool.-Bot. Gesell. Wien, Verh. 37: 571. ☿.
Biology: M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 695–696.—L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 92–93.
Taxonomy: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 325, 328, ☿.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 148, ☿ ♀.—M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 691, 695–696, ☿.—L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 109, ☿.

pilinasis (Forel). Pa., D. C., Ohio, Ill.
Strumigenys clypeata var. *pilinasis* Forel, 1901. Soc. Ent. Belg. Ann. 45: 339. ☿.
Strumigenys (*Cephaloxys*) *medialis* L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 94, 110. ☿.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 148, ☿ ♀.— M. R.Smith, 1931. Ent. Soc. Amer. Ann. 24: 691, 700.☿.—L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 109, ☿.

pulchella (Emery). N. J. to Fla., west to Iowa and La.
Strumigenys pulchella Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 325, 327. ☿.
Biology: M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 687, 704.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 291, 305.—L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 93, 100–101.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 148, ☿ ♀.— M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 691, 702, ☿.—L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 111, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 290, ☿.

reflexa (L. G., Jr., and R. G. Wesson). Ohio to N. C., west to Ill., Tenn. and Ala.
Strumigenys (*Cephaloxys*) *reflexa* L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 102, 111. ☿.

rohweri (M. R. Smith). Miss. (Holly Springs).
Strumigenys (*Cephaloxys*) *rohweri* M. R. Smith, 1935. Ent. Soc. Amer. Ann. 28: 214. ☿.
Taxonomy: L. G., Jr., and R. G. Wesson, 1939. 46: 109, ☿.

rostrata (Emery). N. J. to N. C., west to Ill. and Tenn.
Strumigenys rostrata Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 326, 329. ☿ ♀ ♂.
Biology: M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 705.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 273, 291–292, 305.—L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 99–100.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 148, ☿ ♀.— M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 692, 704–705, ☿.—L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 110, ☿.

talpa (Weber). N. C., Fla., Ohio, Tenn., Ala., Ill.
Strumigenys (*Cephaloxys*) *talpa* Weber, 1934. Psyche 41: 63. ☿.
Strumigenys (*Cephaloxys*) *venatrix* L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 103, 110. ☿.

wrayi Brown. N. C. (Fayetteville).
Smithistruma (*Smithistruma*) *wrayi* Brown, 1950. Amer. Ent. Soc. Trans. 76: 38. ☿.

Genus TRICHOSCAPA Emery

Strumigenys subg. ***Trichoscapa*** Emery, 1869. Accad. Degli Aspiranti Naples Ann. 2: 24.
Type: ***Strumigenys (Trichoscapa) membranifera*** Emery. Monob.

Revisions: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 144–145, 148.—M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 691, 693–695.—L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 108–112.—Brown, 1948. Amer. Ent. Soc. Trans. 74: 112–114.

Brown is of the opinion that all the described forms are only variants of a single species, *membranifera*, and that these ants are tramps which have been widely distributed by commerce. The ants nest in soil, wood, and plant cavities.

membranifera (Emery). Va., Ga., Fla., Ala., Miss., La.; W. Indies. Introduced into the U. S.

Strumigenys (Trichoscapa) membranifera Emery, 1869. Accad. degli Aspiranti Naples Ann. 2: 24. ☿.

Strumigenys membranifera simillima Emery, 1890. Soc. Ent. Ital. Bol. 22: 69. ☿.

Strumigenys membranifera var. ***marioni*** W. M. Wheeler, 1933. Hawaii. Ent. Soc. Proc. 8: 276. ☿.

Biology: M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 694.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 856.—Brown, 1948. Amer. Ent. Soc. Trans. 74: 113.

Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 144–145, 148, ☿ ♀.—M. R. Smith, 1931. Ent. Soc. Amer. Ann. 24: 691, 693–694, ☿.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 829, 856 ☿.—L. G., Jr., and R. G. Wesson, 1939. Psyche 46: 108, ☿.—Brown, 1948. Amer. Ent. Soc. Trans. 74: 114.

Genus QUADRISTRUMA Brown

Quadristruma Brown, 1949. Amer. Ent. Soc. Trans. 75: 47.
Type: ***Epitritus emmae*** Emery. Orig. desig.

emmae (Emery). Fla. (Homestead). Probably introduced.

Epitritus emmae Emery, 1890. Soc. Ent. Ital. Bol. 22: 70. ☿.

Biology: Weber, 1934. Rev. de Ent. 4: 51.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 858 —Brown, 1949. Amer. Ent. Soc. Trans. 75: 49–50.

Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 149, ♀.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 829, 858, ☿.—Brown, 1949. Amer. Ent. Soc. Trans. 75: 48–50, ☿ ♀.

Genus CYPHOMYRMEX Mayr

Subgenus CYPHOMYRMEX Mayr

Cyphomyrmex Mayr, 1862. Zool.-Bot. Gesell. Wien, Verh. 12: 690.
Type: ***Cyphomyrmex minutus*** Mayr=***Cryptocerus? rimosus*** Spinola. Monob.

Revisions: Mayr, 1887. Zool.-Bot. Gesell. Wien, Verh. 37: 555–562.—W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 670, 719–728, 765–773.—Weber, 1940. Rev. de Ent. 11: 406–427.

Neotropical with extensions into the Nearctic Region (Alabama, Arizona, California, Florida, Texas). The ants of this subgenus form small colonies, usually in the soil, and live on fungi which they cultivate from a substratum of vegetable matter or faeces of certain insects.

rimosus (Spinola). Fla., Ala., Tex., Ariz.; Mexico, Cent. and So. Amer., W. Indies.

Cryptocerus? rimosus Spinola, 1853. Accad. Sci. Torino Mem. (2) 13: 65. ☿ ♂.

Meranoplus difformis F. Smith, 1858. Cat. Hym. Brit. Mus., v. 6, p. 195. ☿.

Cyphomyrmex minutus Mayr, 1862. Zool.-Bot. Gesell. Wien, Verh. 12: 691. ☿.

Cyphomyrmex steinheili Forel, 1884. Soc. Vaud. des Sci. Nat. Bul. 20: 368. ☿.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 106.—Weber, 1941. Rev. de Ent. 12: 99–103.—Weber, 1945. Rev. de Ent. 16: 5–14.

Taxonomy: W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 719, 722, ☿ ♀ ♂. —Weber, 1941. Rev. de Ent. 17: 116–119.

rimosus var. **comalensis** W. M. Wheeler. Tex., Calif.

Cyphomyrmex rimosus var. *comalensis* W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 719. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 769–773.

Taxonomy: W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 719–721, ☿ ♀ ♂. —Weber, 1940. Rev. de Ent. 11: 411, ☿.

wheeleri Forel. Cent. Tex. to Calif.; Mexico. Nests in the soil beneath stones in very arid habitats.

Cyphomyrmex Wheeleri Forel, 1900. Schweiz. Ent. Gesell. Mitt. 10: 282. ☿ ♀.

Biology: W. M. Whéeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 765–768.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 74.

Taxonomy: W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 725–726, ☿ ♀ ♂. —Weber, 1940. Rev. de Ent. 11: 409, ☿.

Subgenus MYCETOSORITIS W. M. Wheeler

Atta subg. *Mycetosoritis* W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 714.

Type: *Atta* (*Mycetosoritis*) *hartmanni* W. M. Wheeler. Monob.

Neotropical and Nearctic (southern United States). Intermediate in form between *Cyphomyrmex* and *Trachymyrmex* but with habits more like those of the latter genus. Very small colonies are formed in the soil. The food consists of a fungus grown upon a substratum composed of the anthers of plants. The workers are thought to be nocturnal or crepuscular.

hartmanni (W. M. Wheeler). La., Tex.

Atta (*Mycetosoritis*) *hartmanni* W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 714. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 761–765.—W. M. Wheeler, 1926. Ants, pp. 334–335.

Genus TRACHYMYRMEX Forel

Atta subg. *Trachymyrmex* Forel, 1893. Soc. Ent. Belg. Ann. 37: 600.

Type: *Atta septentrionalis* McCook. Desig. by W. M. Wheeler, 1911.

Revisions: W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 706–714, 746–760. —W. M. Wheeler, 1911. N. Y. Ent. Soc. Jour. 19: 245–255.

Neotropical and Nearctic, occurring as far north as Long Island, N. Y. Although most forms are recorded from the more humid areas of the United States, a few occur even in arid sections. The fungi on which the ants feed is grown on a substratum of plant particles and insect excrement.

arizonensis (W. M. Wheeler). Ariz. (Palmerlee).

Atta (*Trachymyrmex*) *arizonensis* W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 710. ♀ ♂.

Biology: W. M. Wheeler, 1911. Psyche 18: 95–98.—Essig, 1926. Ins. of West. No. Amer., p. 862.

Taxonomy: W. M. Wheeler, 1911. Psyche 18: 93–95, ☿.—W. M. Wheeler, 1911. N. Y. Ent. Soc. Jour. 19: 250, ☿.

desertorum (W. M. Wheeler). Ariz.

Atta (*Trachymyrmex*) *desertorum* W. M. Wheeler, 1911. Psyche 18: 98. ☿.

Biology: W. M. Wheeler, 1911. Psyche 18: 100–101.—Essig, 1926. Ins. of West. No. Amer., p. 862.
Taxonomy: W. M. Wheeler, 1911. N. Y. Ent. Soc. Jour. 19: 249, ☿.

jamaicensis (André). Fla. (Dania). ?Introduced.
Atta (*Acromyrmex*) *jamaicensis* André, 1893. Rev. Ent. Caen 12: 149. ☿.
Trachymyrmex sharpi Forel, 1893. Ent. Soc. London, Trans., p. 372. ☿.
Atta (*Trachymyrmex*) *maritima* W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 107. ☿.

septentrionalis obscurior (W. M. Wheeler). Ill., La., Tex.
Atta (*Trachymyrmex*) *septentrionalis* var. *obscurior* W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 706. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 747–753.
Taxonomy: W. M. Wheeler, 1911. N. Y. Ent. Soc. Jour. 19: 246, 250, ☿.

septentrionalis obscurior var. **crystallina** (W. M. Wheeler). Tex. (Huntsville). The validity of this form is questionable.
Atta (*Trachymyrmex*) *septentrionalis obscurior* var. *crystallina* W. M. Wheeler, 1911. N. Y. Ent. Soc. Jour. 19: 247, 250. ☿ ♀.
Biology: W. M. Wheeler, 1911. N. Y. Ent. Soc. Jour. 19: 250–255.

septentrionalis obscurior var. **irrorata** (W. M. Wheeler). Ariz., Tex. The validity of this form is questionable.
Atta (*Trachymyrmex*) *septentrionalis obscurior* var. *irrorata* W. M. Wheeler, 1911. N. Y. Ent. Soc. Jour. 19: 247, 250. ☿.
Biology: W. M. Wheeler, 1911. N. Y. Ent. Soc. Jour. 19: 250–255.

septentrionalis obscurior var. **seminole** (W. M. Wheeler). Ga., Fla., ?Ind., Tenn., Miss., Okla. Of some economic importance because of the habit of cutting leaves from domesticated plants.
Atta (*Trachymyrmex*) *septentrionalis obscurior* var. *seminole* W. M. Wheeler, 1911. N. Y. Ent. Soc. Jour. 19: 247, 250. ☿ ♀ ♂.
Biology: Dennis, 1938. Ent. Soc. Amer. Ann. 31: 273, 292, 305.—Cole, 1939. Lloydia 2: 153–160.
Taxonomy: M. R. Smith, 1924. Ent. News 35: 52, ☿.—Cole, 1940. Amer. Midland Nat. 24: 59, ☿.

septentrionalis septentrionalis (McCook). N. Y. to S. C., west to Tenn.
?*Oecodoma virginiana* Buckley, 1867. Ent. Soc. Phila. Proc. 6: 346. ☿.
Atta septentrionalis McCook, 1880. Acad. Nat. Sci. Phila. Proc. 32: 359. ☿.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 374, 386–387.—Wheeler, 1907. Amer. Mus. Nat. Hist, Bul. 23: 680–681, 746–747.—W. M. Wheeler, 1911. Psyche 18: 95–97.
Taxonomy: Forel, 1884. Soc. Vaud. des Sci. Nat. Bul. 20: 91, ☿ ♀ ♂.—W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 708–710.—W. M. Wheeler, 1911. N. Y. Ent. Soc. Jour. 19: 245–246, ☿ ♀.

septentrionalis var. **vertebrata** (W. M. Wheeler). N. J. (Lakehurst).
Atta (*Trachymyrmex*) *septentrionalis* var. *vertebrata* W. M. Wheeler, 1911. N. Y. Ent. Soc. Jour. 19: 246, 250. ☿ ♀.

turrifex caroli (W. M. Wheeler). Tex. (Huntsville).
Atta (*Trachymyrmex*) *turrifex caroli* W. M. Wheeler, 1911. N. Y. Ent. Soc. Jour. 19: 248. ☿.

turrifex turrifex (W. M. Wheeler). La., Tex.; Mexico.
Atta (*Trachymyrmex*) *turrifex* W. M. Wheeler, 1903. Psyche 10: 100. ☿ ♀
Biology: W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 753–759.—W. M. Wheeler, 1911. Psyche 18: 95–97.
Taxonomy: W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 709–710, ☿ ♀.—W. M. Wheeler, 1911. N. Y. Ent. Soc. Jour. 19: 249, ☿.

Unrecognized Form of Genus Trachymyrmex Forel

Oecodoma tardigrada Buckley, 1867. Ent. Soc. Phila. Proc. 6: 349. ☿ ♀ ♂.

Genus ACROMYRMEX Mayr

Subgenus ACROMYRMEX Mayr

Atta subg. *Acromyrmex* Mayr, 1865. Reise d. Novara, Zool., v. 1, Hym., p. 83.
Type: *Formica hystrix* Latreille. Monob.

Not known to occur in the Nearctic Region.

Subgenus MOELLERIUS Forel

Atta subg. ***Moellerius*** Forel, 1893. Soc. Ent. Belg. Ann. 37: 589.
Type: ***Atta (Acromyrmex) landolti*** Forel. Desig. by W. M. Wheeler, 1911.
Revisions: W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 669, 700, 703–706, 743–746.—Santschi, 1925. Rev. Suisse de Zool. 31: 386–398.

Neotropical with a slight extension into the Nearctic Region (Ariz., Calif., Tex.). Our common form, *versicolor versicolor* (Perg.), is apparently largely confined to arroyos in arid areas where the ants nest in the soil. The habits are very similar to those of *Atta texana* Buckl. but colonies are apparently not so large and the leaf-cutting habits are not on so extensive a scale.

versicolor chisosensis (W. M. Wheeler). Tex. (Chisos Mts. of southwest. Tex. and Terlingua in the same region).
Atta (Moellerius) versicolor chisosensis W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 705. ☿.

versicolor versicolor (Pergande). Ariz., Calif.; Lower California.
Atta versicolor Pergande, 1893. Calif. Acad. Sci. Proc. 4: 31. ☿.
Biology: W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 743–746.—W. M. Wheeler, 1911. Psyche 18: 101.—W. M. Wheeler, 1917. Psyche 24: 179–180.
Taxonomy: W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 703–705, ☿ ♀ ♂.

Genus ATTA Fabricius

Atta Fabricius, 1804. Systema Piezatorum, p. 421.
Type: ***Formica cephalotes*** Linnaeus. Desig. by W. M. Wheeler, 1911.
Oecodoma Latreille, 1818. Nouv. Dict. Hist. Nat. 23: 223.
Type: ***Formica cephalotes*** Linnaeus. Desig. by Shuckard, 1840.
Archeatta Goncalves, 1942. Soc. Brasil. de Agron. Bol. 5: 342. N. Syn.
Type: ***Oecodoma mexicana*** F. Smith. Orig. desig.
Revisions: W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 669, 700–703, 729–742.—Goncalves, 1942. Soc. Brasil. de Agron. Bol. 5: 333–358.

Neotropical with an extension into the Nearctic Region (Ariz., La., Tex.). Two forms occur in the United States, *A. mexicana* in southern Arizona and *A. texana* in Louisiana and Texas. Nests, which are deep in the soil and usually have many lateral and vertical entrances, are often extremely large and contain innumerable individuals. Workers defoliate both wild and domesticated plants, including trees. The ants live on a fungus grown from a substratum composed of macerated leaves and other vegetable matter.

mexicana (F. Smith). Ariz. (Organ Pipe Cactus National Monument); Mexico.
?Formica fervens Drury, 1782. Illus. Nat. Hist. ,v. 3, p. 58. ♀.
Oecodoma Mexicana F. Smith, 1858. Cat. Hym. Brit. Mus., v. 6, p. 185. ♀ ♂.
Biology: W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 703.—Byars, 1949. Jour. Econ. Ent. 42: 545.
Taxonomy: W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 702–703, ☿ ♂.—Goncalves, 1942. Soc. Brasil. de Agron. Bol. 5: 335, 337, 343, ☿ ♂.—Byars, 1949. Jour. Econ. Ent. 42: 545. 2n.

texana (Buckley). Much of western Louisiana and eastern Texas between the 92d and 101st degrees of longitude but not uniformly distributed in Louisiana at least.
Myrmica (Atta) texana Buckley, 1860. Acad. Nat. Sci. Phila. Proc. 12: 233. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 729–742.—Walter, Seaton, and Mathewson, 1938. U. S. Dept. Agr. Cir. 494: 2–9.—M. R. Smith, 1939. South. Forest Expt. Sta. Occas. Papers 84: 2–6.

Taxonomy: W. M. Wheeler, 1907. Amer. Mus. Nat. Hist. Bul. 23: 700–703, ☿ ♀ ♂.—Goncalves, 1942. Soc. Brasil. de Agron. Bol. 5: 335, 337, 343, ☿ ♂.—Byars, 1949. Jour. Econ. Ent. 42: 545, ♀.

Economics: Hunter, 1912. U. S. Dept. Agr. Bur. Ent. Cir. 148: 1–4.—Jones, 1917. Jour. Econ. Ent. 10: 561.—Snyder, 1937. La. Conserv. Rev., pp. 14–17.—Walter, Seaton, and Mathewson, 1938. U. S. Dept. Agr. Cir. 494: 1–18.—Metcalf and Flint, 1939. Destructive and Useful Insects, p. 771.—Johnston, 1944. Jour. Forestry 42: 130–132.

Unrecognized Forms of Myrmicinae

Tetramorium* (*Cephalomorium*) *bahai Forel, 1922. Rev. Suisse de Zool. 30: 91. ☿. Santschi (1925. Soc. Ent. Belg. Bul. et Ann. 65: 228), who has examined the type of Forel's *Tetramorium* (*C.*) *bahai*, says that it is a species of *Pheidole*, subg. *Hendecapheidole*. No ants of this subgenus have ever been found in the United States.

Myrmica corrugata Say, 1836. Boston Jour. Nat. Hist. 1: 291. ♀ ♂.

Myrmica* (*Monomarium* (!)) *diversa Buckley, 1867. Ent. Soc. Phila. Proc. 6: 337. ☿ ♀.

Myrmica inflécta Say, 1836. Boston Jour. Nat. Hist. 1: 292. ♂.

Myrmica* (*Monomarium* (!)) *lineolata Buckley, 1867. Ent. Soc. Phila. Proc. 6: 340. ☿ ♀. Preocc.

Myrmica* (*Monomarium* (!)) *montana Buckley, 1867. Ent. Soc. Phila. Proc. 6: 339. ☿.

Oecodoma pilosa Buckley, 1867. Ent. Soc. Phila. Proc. 6: 348. ☿.

Myrmica* (*Diplorhoptrum*) *scabrata Buckley, 1867. Ent. Soc. Phila. Proc. 6: 343. ☿.

Tetramorium silvestrii Santschi, 1909. Soc. Ent. Ital. Bol. 41: 6. ☿.

Myrmica* (*Atta*) *sublanuginosa Buckley, 1867. Ent. Soc. Phila. Proc. 6: 343. ☿.

Subfamily DOLICHODERINAE

More common in southern United States than elsewhere.

Genus DOLICHODERUS Lund

Subgenus DOLICHODERUS Lund

Dolichoderus Lund, 1831. Ann. des Sci. Nat., Zool. 23: 130.
Type: ***Formica attelaboides*** Fabricius. Monob.

Not known to occur in the Nearctic Region.

Subgenus HYPOCLINEA Mayr

Hypoclinea Mayr, 1855. Zool.-Bot. Gesell. Wien, Verh. 5: 377.
Type: ***Formica quadripunctata*** Linnaeus. Desig. by W. M. Wheeler, 1911.

Revisions: Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 953–960.—Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 434–437.—W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 305–319.

In the United States the genus ranges from Canada to the Gulf of Mexico and as far west as approximately the 104th degree of longitude. Colonies are small to moderately large. Nests are constructed in the soil, in curled leaves and hollow stems of plants, and in cartons attached to plants. Workers attend honeydew-excreting insects and feed on small arthropods. Some forms emit a fluid from their anal glands which has a peculiar smoky or pungent odor. So far as is known, none of the species is of any economic importance.

mariae davisi W. M. Wheeler. N. J. (Jamesburg).
Dolichoderus mariae davisi W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 306, 308. ☿.
Taxonomy: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 388, ☿.

mariae mariae Forel. Mass. to Ga., west to Minn., Okla. and La.
Dolichoderus Mariae Forel, 1884. Soc. Vaud. des Sci. Nat. Bul. 20: 349. ☿.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 316–319, 387–388.—M. R. Smith, 1924. Ent. News 35: 81.—Cole, 1940. Amer. Midland Nat. 24: 29, 60.
Taxonomy: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 306–308, ☿ ♀ ♂.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 589, ☿ ♀.—Cole, 1940. Amer. Midland Nat. 24: 60, ☿.

mariae var. **blatchleyi** W. M. Wheeler. Ind. (Hammond).
Dolichoderus (*Hypoclinea*) *mariae* var. *blatchleyi* W. M. Wheeler, 1917 (1916). Ind. Acad. Sci. Proc. 26: 462. ☿.

plagiatus plagiatus (Mayr.) Ont. to S. C., west to Minn. and Tenn.
Hypoclinea plagiata Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 957, 960. ☿.
Dolichoderus borealis Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 408. ☿.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 306, 315–316, 388.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 621–622.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 90, 99.
Taxonomy: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 310–312, ☿ ♀ ♂.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 590, ☿.—Cole, 1940. Amer. Midland Nat. 24: 60, ☿.

plagiatus pustulatus Mayr. N. Y. to Fla., west to Ill. and Okla.
Dolichoderus pustulatus Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 435, 436. ☿ ♀.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 315–316, 388.—W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 12.
Taxonomy: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 306, 313, 388, ☿ ♀.—M. R. Smith, 1924. Ent. News 35: 82, ☿.

plagiatus pustulatus var. **beutenmuelleri** W. M. Wheeler. N. Y. to Fla., west to Ill. and La.
Dolichoderus plagiatus var. *beutenmülleri* W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 304. ☿.
Biology: W. M. Wheeler, 1917 (1916). Ind. Acad. Sci. Proc. 26: 462.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 89, 99.
Taxonomy: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 306, 313, 388, ☿.—M. R. Smith, 1931. Ent. News 42: 22, ☿.

plagiatus var. **inornatus** W. M. Wheeler. Mass., N. Y., N. J., Ill., N. Dak.
Dolichoderus plagiatus var. *inornatus* W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 306, 313. ☿.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 315–316.
Taxonomy: R. E. Gregg, 1944. Ent. Soc. Amer. Ann. 37: 467, ☿.

taschenbergi (Mayr.) Ont. to S. C., west to Man., S. Dak. and La.
Hypoclinea Taschenbergi Mayr, 1866. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 53: 498. ☿.
Biology: M. R. Smith, 1924. Ent. News 35: 81–82.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 292–293.
Taxonomy: Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 958, ☿.—W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 306, 309–310, ☿.—M. R. Smith, 1924. Ent. News 35: 82, ☿.

taschenbergi var. **aterrimus** W. M. Wheeler. Ont. to S. C., west to N. Dak. and Miss.
Dolichoderus taschenbergi var. *gagates* W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 306, 310. ☿. Preocc.
Dolichoderus (*Hypoclinea*) *taschenbergi* var. *aterrimus* W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 417. N. name.
Dolichoderus Taschenbergi var. *wheeleriella* Forel, 1916. Rev. Suisse de Zool. 24: 458. N. name.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 316–319.—W. M. Wheeler, 1915. Psyche 22: 306.—Logier, 1923. Canad. Ent. 55: 247–249.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 99.
Taxonomy: Cole, 1940. Amer. Midland Nat. 24: 60, ☿.

Genus LIOMETOPUM Mayr

Liometopum Mayr, 1861. Die Europäischen Formiciden, pp. 25, 38.
Type: *Formica microcephala* Panzer. Monob.
Revision: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 321–333.

Holarctic. In the United States known to occur from Wyoming to Texas, west to Oregon and California. The Nearctic forms nest in the soil beneath cover, and also beneath the bark or in crevices of trees. Colonies are often populous. Workers forage in files sometimes several hundred feet long. They are pugnacious and eject a repellent secretion from their anal glands.

apiculatum apiculatum Mayr. Ariz., N. Mex., Tex., Colo.; Mexico.
Liometopum apiculatum Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 961. ☿.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 325–333.—W. M. Wheeler, 1917. Psyche 24: 177–178.
Taxonomy: Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 331, ♀.—W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 322–324, ☿ ♀ ♂.

apiculatum luctuosum W. M. Wheeler. Calif., Utah, Ariz., Colo., N. Mex., Tex.
Liometopum apiculatum luctuosum W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 325. ☿.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 332.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 75.
Taxonomy: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 325, ☿.—Forel, 1914. Deut. Ent. Ztschr. 6: 619, ♂.—Cole, 1942. Amer. Midland Nat. 28: 371, ☿.

occidentale Emery. Calif., Oreg.
Liometopum microcephalum var. *occidentale* Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 330. ☿ ♀.
Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 522.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 75.
Taxonomy: W. M. Wheeler 1905. Amer. Mus. Nat. Hist. Bul. 21: 324–325, ☿.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 521–522, ♀ ♂.—Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 8, 17. ☿.

Unrecognized Species of Liometopum Mayr

Formica masonia Buckley, 1866. Ent. Soc. Phila. Proc. 6: 165. ☿.

Genus IRIDOMYRMEX Mayr

Iridomyrmex Mayr, 1862. Zool.-Bot. Gesell. Wien, Verh. 12: 702.
Type: *Formica detecta* F. Smith. Desig. by Bingham, 1903.
Tapinoma subg. *Doleromyrma* Forel, 1907. Mus. Nat. Hungarici Ann. 5: 28.
Type: *Tapinoma* (*Doleromyrma*) *darwinianum* Forel. Monob.
Revisions: Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 953–960.—M. R. Smith, 1929. Jour. Econ. Ent. 22: 241–243.

The native forms are largely confined to the southern half of the United States.

analis (André). Ohio to Fla., west to Calif.; Mexico, Cuba.
Tapinoma anale André, 1893. Rev. Ent. France 12: 148. ☿.
Biology: W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 342.—M. R. Smith, 1924. Ent. News 35: 83.—Dennis, 1938. Amer. Ent. Soc. Ann. 31: 294, 305.
Taxonomy: M. R. Smith, 1929. Jour. Econ. Ent. 22: 241, ☿.—Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 8, ☿.—Cole, 1942. Amer. Midland Nat. 28: 372, ☿.

humilis (Mayr). Md. to Fla., west to Ill. and Calif. Introduced into the United States from Brazil; becoming widely distributed over the world by commerce. This is the notorious "Argentine ant." It usually nests in the soil, rotting wood or debris, and lives in large colonies that contain many females. It destroys all the native species in its territory except a few insignificant ones, and is one of the worst of the worst of the known house-infesting ants. It is known to steal seeds from seedbeds, drive poultry from their nests, kill newly hatched chickens, foster honeydew-excreting insects, disrupt bee hives, and gnaw into ripened fruits.

Hypoclinea* (*Iridomyrmex*) *humilis Mayr, 1868. Soc. Nat. Modena Ann. 3: 164. ☿.

Biology: Newell, 1909. Jour. Econ. Ent. 2: 174–192.

Taxonomy: W. M. Wheeler, 1913. *In* Newell and Barber, U. S. Dept. Agr. Bur. Ent. Bul. 122: 27–30, ☿ ♀ ♂.—M. R. Smith, 1929. Jour. Econ. Ent. 22: 241, ☿.

Economics: Newell and Barber, 1913. U. S. Dept. Agr. Bur. Ent. Bul. 122: 1–98.—E. R. Barber, 1920. U. S. Dept. Agr. Farmers' Bul. 1101: 1–11.—Woglum and Borden, 1921. U. S. Dept. Agr. Bul. 965: 1–43.—R. W. Harned and M. R. Smith, 1922. Jour. Econ. Ent. 15: 261–264.—M. R. Smith, 1936. U. S. Dept. Agr. Cir. 387: 1–39.—Essig, 1926. Ins. of West. No. Amer., pp. 865–866.

iniquus var. **nigellus** Emery. Mass., Ill.; Cent. Amer. Introduced into U. S. *I. iniquus* Mayr occurs in Central and South America and the West Indies.

Iridomyrmex iniquus* var. *nigellus Emery, 1890. Soc. Ent. Ital. Bol. 22: 56. ☿.

Biology: W. M. Wheeler, 1929. Psyche 36: 89–90.—M. R. Smith, 1929. Jour. Econ. Ent. 22: 241.

Taxonomy: M. R. Smith, 1929. Jour. Econ. Ent. 22: 241–242, ☿

pruinosus (Roger). N. Y. to Fla., west to S. Dak., Utah and Calif.; W. Indies.

Tapinoma pruinosum Roger, 1863. Berlin. Ent. Ztschr. 7: 165. ☿.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 389.—M. R. Smith, 1930. Fla. Ent. 14: 5.—Cole, 1940. Amer. Midland Nat. 24: 64–65.

Taxonomy: M. R. Smith, 1929. Jour. Econ. Ent. 22: 241, ☿.—Cole, 1940. Amer. Midland Nat. 24: 64, ☿.—Cole, 1942. Amer. Midland Nat. 28: 372, ☿.

pruinosus var. **testaceus** Cole. Idaho, Utah.

Iridomyrmex pruinosus* var. *testaceus Cole, 1936. Ent. News 47: 121. ☿ ♀.

Biology and taxonomy: Cole, 1942. Amer. Midland Nat. 28: 372–373 ☿.

Genus FORELIUS Emery

Forelius Emery, 1888. Ztschr. f. Wiss. Zool. 46: 389.
Type: (***Iridomyrmex mccooki*** Forel) = ***Formica foetida*** Buckley. Monob.

Neotropical and Nearctic. The exact range of this genus and the number of forms in the United States have not yet been definitely ascertained.

foetidus andrei Forel, n. status. Calif.

Forelius MacCooki* race *Andrei Forel, 1912. Soc. Ent. Belg. Mem. 20: 44 ☿.

foetidus foetidus (Buckley). Ariz., Calif., Tex. (Incorrectly reported from D. C.)

Formica foetida Buckley, 1866. Ent. Soc. Phila. Proc. 6: 167. ☿ ♀.

Iridomyrmex McCooki Forel, 1878. Soc. Vaud. des Sci. Nat. Bul. 15: 382.

Biology: Cole, 1937. Ent. News 48: 137.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 77.

Taxonomy: Forel, 1886. Soc. Ent. Belg. Bul. (C. R.) 30: 39, ☿.

Economics: Lindquist, 1942. Jour. Econ. Ent. 35: 850–852.

Genus DORYMYRMEX Mayr

Subgenus DORYMYRMEX Mayr

Dorymyrmex Mayr, 1866. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 53: 494.
Type: ***Dorymyrmex flavescens*** Mayr, not Fabricius. Monob.

Not known to occur in the Nearctic Region.

Subgenus CONOMYRMA Forel

Conomyrma Forel, 1913. Rev. Zool. Africaine 2: 350.
Type: *Prenolepis pyramica* Roger. Desig. by Santschi, 1922.

Neotropical and Nearctic. In the United States the subgenus occurs as far north as the 42d degree of latitude. Our forms construct craterlike nests in the soil usually in open, sunny areas. Colonies are small to moderate in size. The workers are predaceous, active, and aggressive. They possess anal glands which emit a fluid with a disagreeable odor. Occasionally two forms occupy the same nest. Some infest houses.

pyramicus flavopectus M. R. Smith. Fla. (Lake Placid).
Dorymyrmex pyramicus flavopectus M. R. Smith, 1944. Fla. Ent. 27: 15. ☿.

pyramicus pyramicus (Roger). N. Y. to Idaho, south to So. Amer.; also W. Indies and Galapagos Isl.
Prenolepis pyramica Roger, 1863. Berlin. Ent. Ztschr. 7: 160. ☿.
Formica insana Buckley, 1866. Ent. Soc. Phila. Proc. 6: 165. ☿ ♀.
Biology: W. M. Wheeler, 1926. Ants. pp. 146, 201, 205, 426.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 293, 305.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 291.
Taxonomy: Emery: 1895. Zool. Jahrb. Abt. f. System. 8: 331–332, ♂.—Cole, 1940. Amer. Midland Nat. 24: 61, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 291, ☿.
Economics: Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 19.

pyramicus var. **bicolor** W. M. Wheeler. Calif., Utah. Ariz., Tex.; Mexico. Infests houses.
Dorymyrmex pyramicus var. *bicolor* W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 342. ☿ ♀.
Biology: W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 335, 342.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 76.
Taxonomy: Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 7, 19.—Cole, 1942. Amer. Midland Nat. 28: 372, ☿.
Economics: Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 19.

pyramicus var. **flavus** McCook. Approximately southern half of the United States.
Dorymyrmex flavus McCook, 1879. *In* Comstock, Rpt. on Cotton Insects, p. 186. ☿.
Biology: M. R. Smith, 1924. Ent. News 35: 82.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 293, 305.
Taxonomy: Cole, 1940. Amer. Midland Nat. 24: 61–62, ☿.—Cole, 1942. Amer. Midland Nat. 28: 371, ☿.

pyramicus var. **niger** Pergande. N. C., S. C., Ala., Miss., Iowa, La., N. Dak., Tex., Ariz., Calif.
Dorymyrmex pyramicus var. *nigra* Pergande, 1895. Calif. Acad. Sci. Proc. 5: 871. ☿.
Biology: M. R. Smith, 1924. Ent. News 35: 82.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 864–865.
Taxonomy: M. R. Smith, 1924. Ent. News 35: 82, ☿.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 861, 864, ☿.

pyramicus var. **smithi** Cole. Nebr. (North Platte).
Dorymyrmex pyramicus var. *smithi* Cole, 1936. Ent. News 47: 120. ☿.

Genus TAPINOMA Foerster

Tapinoma Foerster, 1850. Hym. Stud., v. 1, p. 43.
Type: (*Tapinoma collina* Foerster) = *Formica erratica* Latreille. Monob.
Micromyrma Dufour, 1857. Soc. Ent. France Ann. 5: 60. Preocc. N. syn.
Type: (*Micromyrma pygmaea* Dufour, not *Formica pygmaea* Latreille = *Tapinoma Dufourii* Donisthorpe, preocc. by Perris, 1877) = *Tapinoma confusum* M. R. Smith, n. name. Monob.

litorale W. M. Wheeler. Fla.; W. Indies. Nests in twigs of trees and bushes, hollow culms, or between leaves. Apparently largely arboreal in habit.

Tapinoma litorale W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 109. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 150.—W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 13.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 862.

Taxonomy: M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 861–862, ☿.

melanocephalum (Fabricius). Fla., Ga. Tropicopolitan. Introduced into U. S. Widely distributed by commerce. An important house-infesting form.

Formica melanocephala Fabricius, 1793. Ent. System., v. 2, p. 353. ☿.

Biology: Phillips, 1934. (Hawaii Univ.) Expt. Sta. Pineapple Prod. Coop. Assoc. Bul. 15: 20–21.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 861–862.

Taxonomy: M. R. Smith, 1928. Ent. Soc. Amer. Ann. 21: 311. ☿.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 861–862, ☿.

Economics: W. M. Wheeler, 1926. Ants, pp. 154, 156.—Marlatt, 1928. U. S. Dept. Agr. Farmers' Bul. 740: 6.

sessile (Say). Canada, U. S.; Mexico. A common and troublesome house-infesting ant.

Formica sessilis Say, 1836. Boston Jour. Nat. Hist. 1: 287. ☿ ♀.

Tapinoma boreale Roger, 1863. Berlin. Ent. Ztschr. 7: 165. ☿ ♀.

Formica gracilis Buckley, 1866. Ent. Soc. Phila. Proc., p. 158. ☿ ♀.

Formica parva Buckley, 1866. Ent. Soc. Phila. Proc., p. 159. ☿.

Tapinoma boreale Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 238. ☿ ♀. Preocc.

Biology and taxonomy: M. R. Smith, 1928. Ent. Soc. Amer. Ann. 21: 307–329, ☿ ♀ ♂.

Economics: Metcalf and Flint, 1939. Destructive and Useful Insects, ed. 2, p. 770.

Unrecognized Form of Tapinoma Foerster

Bothriomyrmex dimmocki W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 417. ☿ ♀. This may be a pale, depauperate form of *Tapinoma sessile* (Say).

Unrecognized Form of Dolichoderinae

Formica (Hypochira) subspinosa Buckley, 1866. Ent. Soc. Phila. Proc. 6: 169 ☿.

Subfamily FORMICINAE

Second largest subfamily of ants. Although representatives occur in every section, these ants are relatively more abundant in northern areas than elsewhere. Nests are constructed in diverse places, as in the soil, in logs and stumps, in crevices of plants and trees, in insect galls or even in houses. The food includes honeydew, sap, juices of plants and fruits, flesh of arthropods, etc. Some forms even foster mealybugs, plant lice, and possibly other honeydew-excreting insects. Many of them infest houses. One of the most troublesome is the black carpenter ant, *Camponotus herculeanus pennsylvanicus*, which not only infests human foods but may nest in the woodwork and cause appreciable injury. This ant is also known to damage telephone poles.

Genus BRACHYMYRMEX Mayr

Subgenus BRACHYMYRMEX Mayr

Brachymyrmex Mayr, 1868. Soc. Nat. Modena Ann. 3: 163.
Type: ***Brachymyrmex patagonicus*** Mayr. Monob.

Revisions: W. M. Wheeler, 1903. Psyche 10: 102–103.—Santschi, 1923. Buenos Aires Mus. Nac. de Hist. Nat. An. 31: 650–674.

depilis Emery. N. S. to Fla. and west to S. Dak., B. C., and ?Wash.
Brachymyrmex heerii depilis Emery, 1893. Zool. Jahrb. Abt. f. System. 7: 635. ☿.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 389.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 294.
Taxonomy: W. M. Wheeler, 1903. Psyche 10: 103, ☿ ♂.—Cole, 1940. Amer. Midland Nat. 24: 65, ☿.—R. E. Gregg, 1944. Ent. Soc. Amer. Ann. 37: 469, ☿.

heeri var. **obscurior** Forel. Fla. Possibly introduced into U. S.; Mexico, Central America, West Indies. *B. heeri* Forel occurs in South America and West Indies.
Brachymyrmex Heeri var. ***obscurior*** Forel, 1893. Ent. Soc. London, Trans., p. 345. ☿ ♀ ♂.
Biology: M. R. Smith, 1936. Puerto Rico Univ. Jour Agr. 20: 866–867.
Taxonomy: Santschi, 1923. Buenos Aires Mus. Nac. de Hist. Nat. An. 31: 654, 666, ☿ ♀.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 865, 867, ☿.
Economics: H. K. Plank and M. R. Smith, 1940. Puerto Rico Univ. Jour. Agr. 24: 60.

nanellus W. M. Wheeler. Miss., Tex.
Brachymyrmex nanellus W. M. Wheeler, 1903. Psyche 10: 102. ☿ ♂.
Biology: M. R. Smith, 1927. Ent. News 38: 313.
Taxonomy: Santschi, 1923. Buenos Aires Mus. Nac. de Hist. Nat. An. 31: 664, ☿.

Genus CAMPONOTUS Mayr

Subgenus CAMPONOTUS Mayr

Camponotus Mayr, 1861. Die Europäischen Formiciden, pp. 25, 35.
Type: ***Formica ligniperda*** Latreille. Desig. by Bingham, 1903.
Revisions: Emery, 1893. Zool. Jahrb. Abt. f. System. 7: 667–682.—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 295–354.

acutirostris W. M. Wheeler. N. Mex.
Camponotus (Camponotus) acutirostris W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 298, 317. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 318.
Taxonomy: W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 420.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 561-562, ☿.

acutirostris var. **clarigaster** W. M. Wheeler. Ariz. (Grand Canyon).
Camponotus acutirostris var. ***clarigaster*** W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 420. ☿.

castaneus americanus Mayr. N. H. to Fla., west to Kans. and Tex.
Camponotus americanus Mayr, 1862. Zool.-Bot. Gesell, Wien, Verh. 12: 661. ☿ ♀.
Biology: Dennis, 1938. Ent. Soc. Amer. Ann. 31: 273, 275, 300–301.—R. E. Gregg, 1944. Ent. Soc. Amer. Ann. 37: 457, 477.
Taxonomy: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 299, 323–325, ☿ ♀ ♂.—Cole, 1940. Amer. Midland Nat. 24: 82, 84, ☿.—R. E. Gregg, 1944. Ent. Soc. Amer. Ann. 37: 477, ☿.

castaneus castaneus (Latreille). N. Y. to Fla., west to Okla. and Tex.
Formica castanea Latreille, 1802. Hist. Nat. Fourmis, p. 118. ☿ ♀ ♂.
Formica mellea Say, 1831. Descr. N. Spp. No. Amer. Ins. Found in La. by Jos. Barabino, p. 14. ♂.
Camponotus clarus Mayr, 1862. Zool.-Bot. Gesell. Wien, Verh. 12: 660. ♀.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 402.—R. E. Gregg, 1944. Ent. Soc. Amer. Ann. 37: 457, 477.
Taxonomy: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 299, 321–323, ☿ ♀ ♂.—Cole, 1940. Amer. Midland Nat. 24: 82, 84, ☿.—R. E. Gregg, 1944. Ent. Soc. Amer. Ann. 37: 477, ☿.

castaneus rufinasis Santschi. Okla. (Poteau).
Camponotus (Camponotus) castaneus stirps ***rufinasis*** Santschi, 1936. Rev. de Ent. 6: 204. ☿.

herculeanus ligniperdus var. ***noveboracensis*** (Fitch). N. S. and Que. to Va. west to Colo., Utah, Oreg., and B. C. *C. herculeanus ligniperdus* (Latreille) occurs in Europe.

Formica novaeboracensis Fitch, 1855. N. Y. State Agr. Soc. Trans. 14: 766. ☿.

Camponotus herculeanus ligniperdus var. *pictus* Forel, 1879. Soc. Vaud. des Sci. Nat. Bul. 16: 59. ☿ ♀ ♂.

Camponotus herculeanus ligniperdus var. *noveboracensis* Forel, 1899. Soc. Ent. Belg. Ann. 43: 447. Emend.

Biology: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 341.—R. E. Gregg, 1944. Ent. Soc. Amer. Ann. 37: 457–458.—G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 250–251.

Morphology: Falconer Smith, 1942. Tenn. Acad. Sci. Jour. 17: 368.

Taxonomy: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 300, 340, ☿ ♀ ♂.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 293, ☿.

herculeanus pennsylvanicus (Degeer). Ont. and Que. to Fla. west to N. Dak. and Tex. An important economic species; a wood-nesting form which damages wooden buildings and telephone poles, and infests human foods.

Formica pensylvanica (!) Degeer, 1773. Mem. Serv. Hist. Ins., v. 3, p. 603. ☿ ♀ ♂.

Biology: McCook, 1877. Amer. Ent. Soc. Trans. 6: 253–296.—Pricer, 1908. Biol. Bul. 14: 177–218.

Morphology: Forbes, 1938. Ent. Soc. Amer. Ann. 31: 181–195.—Falconer Smith, 1942. Tenn. Acad. Sci. Jour. 17: 367–373.

Taxonomy: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 299, 335–336, ☿ ♀ ♂.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 600. ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 293, ☿.

Economics: Herrick, 1914. Insects Injurious to the Household and Annoying to Man, pp. 177–178.—Gibson, 1916. Canad. Ent. 48: 365–366.— Graham, 1918. Minn. State Ent. Rpt. 17: 32–40.—Back, 1937. U. S. Dept. Agr. Leaflet 147.

Bibliography: Townsend, 1945. Ky. Agr. Expt. Sta. Cir. 59: 1–27.

Physiology: McCook, 1878. Phila. Acad. Nat. Sci. Proc. 30: 15–19.—Fielde, 1903. Biol. Bul. 5: 320–325.—Fielde and Parker, 1904. Phila. Acad. Nat. Sci. Proc. 56: 642–649.

herculeanus pennsylvanicus var. **ferrugineus** (Fabricius). N. Y. to Ga., west to Nebr. and Kans.

Formica ferruginea Fabricius, 1798. Sup. Ent. System., p. 279. ☿ ♀.

Biology: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 339.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 301–302.

Taxonomy: Emery, 1893. Zool. Jahrb. Abt. f. System. 7: 668. ☿.—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 299, 338–339, ☿ ♀ ♂.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 600–601, ☿.—Cole, 1940. Amer. Midland Nat. 24: 86, ☿.

Embryology: Tanquary, 1913. Ill. State Lab. Nat. Hist. Bul. 9: 454–475.

herculeanus var. **modoc** W. M. Wheeler. S. Dak. to N. Mex., west to B. C. and Calif. *C. herculeanus herculeanus* (Linnaeus) occurs in Europe. Nests in wood of buildings and infests human food.

Camponotus (*Camponotus*) *herculeanus* var. *modoc* W. M. Wheeler, 1910, N. Y. Acad. Sci. Ann. 20: 299, 333. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 557.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 90.

Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 387, ☿.

Economics: Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 29.—Furniss, 1944. Oreg. Agr. Expt. Sta. Cir. 158: 1–12.

herculeanus var. **whymperi** Forel. Alaska, Canada, Labrador, Newfoundland, N. B., N. S., Maine, N. Y., and Pa. west to Wash. and Oreg. Also Colo., Utah, N. Mex. A boreal and alpine form.

Camponotus herculeanus var. *Whymperi* Forel, 1902. Ent. Soc. London, Trans., p. 699. ☿ ♀.

Biology: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 333.—Gregg, 1946. Amer. Midland Nat. 35: 753.

Taxonomy: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 299, 330–333, ☿ ♀ ♂.—Cole, 1942. Amer. Midland Nat. 28: 387, ☿.

laevigatus (F. Smith). Mont. and N. Mex. to B. C. and Mex. (Gulf of Calif.). Occurs at 4,000 to 11,000 ft. Nests in, and damages wood of buildings; infests human foods.

Formica laevigata F. Smith, 1858. Cat. Hym. Brit. Mus., v. 6, p. 55. ☿ . ♀ .
Biology: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 329.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 556.—Cole, 1942, Amer. Midland Nat. 28: 388.
Taxonomy: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 299, 327–330, ☿ ♀ ♂.—Cole, 1942. Amer. Midland Nat. 28: 387, ☿ .
Economics: Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 29.—Furniss, 1944. Oreg. Agr. Expt. Sta. Cir. 158: 1–12.

ocreatus ocreatus Emery. Calif. (Panamint Mts.); Mexico. Very closely related to *C. acutirostris* W. M. Wheeler and its form.
Camponotus (Camponotus) maculatus ocreatus Emery, 1893. Zool, Jahrb., Abt. f. System. 7: 668, 673. ☿ .
Taxonomy: Emery, 1895. Zool. Jahrb., Abt. f. System. 8: 336, ☿ .—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 298, 309–310, ☿ .—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 561–562, ☿ .

ocreatus primipilaris W. M. Wheeler. Ariz.
Camponotus (Camponotus) acutirostris primipilaris W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 298, 319. ☿ ♀ .
Biology: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 319, footnote.
Taxonomy: W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 420.—W. M. Wheeler., 1917. Amer. Acad. Arts and Sci. Proc. 52: 561–562, ☿ .

sansabeanus bulimosus W. M. Wheeler. Ariz.
Camponotus (Camponotus) maculatus bulimosus W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 308. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 560–561.

sansabeanus dumetorum W. M. Wheeler. Calif. (dry foothills of San Gabriel Range near Pasadena and Claremont to an altitude of 2,000 ft.). The dominant insect of the chaparral.
Camponotus (Camponotus) maculatus dumetorum W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 354. ☿ ♂.
Camponotus (Myrmoturba) maculatus Maccooki berkeleyensis Forel, 1914. Deut. Ent. Ztschr., p. 619. ☿ .
Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 560.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 90–91.

sansabeanus maccooki Forel. Okla. and Tex. west to Oreg. and Calif., south to Mexico. Infests houses and disfigures lawns with its nests.
Camponotus sylvaticus maccooki Forel, 1879. Soc. Vaud. des Sci. Nat. Bul. 16: 69. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 345.—Cole, 1934 Ent. Soc. Amer. Ann. 27: 403.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 91.
Taxonomy: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 668, 672, ☿ .—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 298, 306, ☿ ♀ ♂.
Economics: Essig, 1926. Ins. of West. No. Amer., p. 868.—Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 28.

sansabeanus sansabeanus (Buckley). Ark. and La., west to Utah and Ariz.
Formica San Sabeana Buckley, 1866. Ent. Soc. Phila. Proc. 6: 167. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1901. Amer. Nat. 35: 518, 520, 533.—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 308.—W. M. Wheeler, 1926. Ants, pp. 349, 393.
Morphology: W. M. Wheeler, 1926. Ants, pp. 24, 49.
Taxonomy: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 672–673, ☿ ♀ .—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 298, 307–308, ☿ ♀ ♂.—Cole, 1942. Amer. Midland Nat. 28: 387. ☿ .

sansabeanus sansabeanus var. **torrefactus** W. M. Wheeler. Ariz., Utah.
Camponotus (Camponotus) maculatus sansabeanus var. ***torrefactus*** W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 298, 308. ☿ ♂.
Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 559.—Cole, 1942. Amer. Midland Nat. 28: 388.
Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 387, ☿ .

sansabeanus vicinus Mayr. Alta. to N. Mex., west to B. C. and Calif.
Camponotus vicinus Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 940. ☿ .

Taxonomy: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 668, 671–672, ☿ ♀.—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 298, 301–303, ☿ ♀ ♂.—Cole, 1942. Amer. Midland Nat. 28: 387, ☿.

sansabeanus vicinus var. **infernalis** W. M. Wheeler. Ariz., Calif., N. Mex.

Camponotus* (*Camponotus*) *maculatus vicinus var. ***infernalis*** W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 298, 305. ☿.

Camponotus* (*Myrmoturba*) *maculatus vicinus var. ***subrostrata*** Forel, 1914. Deut. Ent. Ztschr., p. 620. ☿.

Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 560.

sansabeanus vicinus var. ***luteangulus*** W. M. Wheeler. Mont. to Ariz., west to B. C. and Calif.

Camponotus* (*Camponotus*) *maculatus vicinus var. ***luteangulus*** W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 298, 304. ☿ ♂.

Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 559.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 92.—Cole, 1942. Amer. Midland Nat. 28: 388.

Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 387, ☿.

sansabeanus vicinus var. **maritimus** W. M. Wheeler. Calif.

Camponotus* (*Camponotus*) *maculatus vicinus var. ***maritimus*** W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 298, 305. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci Proc. 52: 559.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 92.

sansabeanus vicinus var. **nitidiventris** Emery. S. Dak. to Okla., west to Wash. and Calif.; ?La.

?***Formica Tejonia*** Buckley, 1866. Ent. Soc. Phila. Proc. 6: 161. ♂.

Camponotus* (*Camponotus*) *maculatus vicinus var. ***nitidiventris*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 668, 672. ☿.

Biology: W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 345.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 559.—Cole, 1942. Amer. Midland Nat. 28: 387.

Taxonomy: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 298, 304–305, ☿ ♀ ♂.—Cole, 1942. Amer. Midland Nat. 28: 387, ☿.

sansabeanus vicinus var. **plorabilis** W. M. Wheeler. Wash., Calif., Idaho, Nev., Man.

Camponotus* (*Camponotus*) *maculatus vicinus var. ***plorabilis*** W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 298, 303. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 559.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 92.—McClure, 1943. Ecol. Monog. 13: 19.

sansabeanus vicinus var. **semitestaceus** Emery. Calif.

Camponotus* (*Camponotus*) *maculatus vicinus var. ***semitestaceus*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 668, 672. ☿.

Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci Proc. 52: 559.—Essig, 1926. Ins. West. No. Amer., p. 868.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 92.

Taxonomy: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 298, 304, ☿.

Unrecognized Forms of Subgenus Camponotus Mayr

herculeanus herculeanus herculeano-pennsylvanicus Forel. Allegheny Mts., N. Y., S. C., Ill.

Camponotus herculeanus herculeanus herculeano-pennsylvanicus Forel, 1879. Soc. Vaud. des Sci. Nat. Bul. 16: 57. ☿ (?).

Camponotus herculeanus pennsylvanicus var. ***mahican*** W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 299, 338. ♀. Unnecessarily proposed as a new name for *herculeano-pennsylvanicus*.

herculeanus ligniperdus var. **rubens** W. M. Wheeler. Maine, Mich.

Camponotus herculeanus ligniperdus var. ***rubens*** W. M. Wheeler, 1906. Psyche 13: 41. ♀ ♂.

semipunctata Kirby. "Taken on a journey from New York to Cumberland House."

Formica semipunctata Kirby, 1837 Fauna Bor.-Amer., v. 4, p. 262. ♀.

Subgenus TANAEMYRMEX Ashmead

Tanaemyrmex Ashmead, 1905. Canad. Ent. 37: 384.
Type: ***Formica longipes*** Gerstaecker. Orig. desig.
Myrmoturba Forel, 1912. Soc. Ent. Belg. Mem. 20: 91.
Type: ***Formica maculata*** Fabricius. Desig. by W. M. Wheeler, 1913.
Revision: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 298–299, 310–317, 319–321.

Some forms nest in wood, others in the soil. Food habits in general similar to those of the subgenus *Camponotus*. Several forms infest houses.

fumidus var. **festinatus** (Buckley). Ariz., Colo., N. Mex., Tex., Mex. *C.* (*T.*) *fumidus* Roger occurs in Central America. Workers timid, crepuscular or nocturnal.
Formica festinata Buckley, 1866. Ent. Soc. Phila. Proc. 6: 164. ☿ ♀.
Camponotus (Camponotus) fumidus var. ***pubicornis*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 668, 670. ☿.
Biology: W. M. Wheeler, 1901. Amer. Nat. 35: 518, 520, 533.—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 314.
Taxonomy: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 299, 312–314, ☿ ♀ ♂.

fumidus var. **fragilis** Pergande. Calif., Tex. (?), Mexico. Infests houses at night.
Camponotus fragilis Pergande, 1893. Calif. Acad. Sci. Proc. 4: 26. ☿.
Taxonomy: Emery, 1895. Zool. Jahrb., Abt. f. System. 8: 336, ☿.—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 299, 315, ☿.

fumidus var. **spurcus** W. M. Wheeler. Ariz., Tex.
Camponotus (Camponotus) fumidus var. ***spurcus*** W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 299, 315. ☿ ♀.

incensus W. M. Wheeler. Fla. (Pigeon Key near Miami).
Camponotus (Tanaemyrmex) incensus W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 14. ☿.

socius Roger. N. C. to Fla., west to La.; Brazil. Probably introduced into U. S.
Camponotus socius Roger, 1863. Berlin. Ent. Ztschr. 7: 140. ☿.
Biology: W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 14–15.
Taxonomy: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 667, 670, ☿.—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 298, 319–321, ☿ ♀ ♂.

socius var. **osceola** W. M. Wheeler. Ga., Fla., This color variant of *socius* may not have any validity.
Camponotus (Tanaemyrmex) socius var. ***osceola*** W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 15. ☿.

tortuganus Emery. Fla. (lower third of the state).
Camponotus maculatus tortuganus Emery, 1895. Zool. Jahrb., Abt. f System. 8: 336. ☿
Biology: W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 13–14.
Taxonomy: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 299, 310–312, ☿ ♀ ♂.

vafer W. M. Wheeler. Ariz. (Huachuca Mts., 5,000–6,000 ft.). Nests under stones. Infests houses.
Camponotus (Camponotus) vafer W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 299, 315. ☿ ♀.

Subgenus MYRMOTHRIX Forel

Myrmothrix Forel, 1912. Soc. Ent. Belg. Mem. 20: 91.
Type: ***Formica abdominalis*** Fabricius. Desig. by W. M. Wheeler, 1913.
Revisions: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 299, 325–327.—Santschi, 1936. Rev. de Ent. 6: 207–218.

Neotropical with extensions into southeastern and southwestern United States. Apparently native. General habits similar to other *Camponotus*. At least one form is of economic importance.

abdominalis floridanus (Buckley). N. C., S. C., Ga., Fla. *C.* (*M.*) *abdominalis abdominalis* (Fabricius) occurs in Central and South America. One of the most common species of *Camponotus* in Florida. Wood-nesting. Infests beehives and houses, and damages woodwork of buildings.

Formica Floridana Buckley, 1866. Ent. Soc. Phila. Proc. 6: 161. ☿.

Camponotus atriceps stirps ***Yankee*** Forel, 1884. Soc. Vaud. des Sci. Nat. Bul. 20: 340. ☿.

Biology: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 326.

Taxonomy: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 668, 670, ☿.—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 299, 325–326, ☿ ♀.—Santschi, 1936. Rev. de Ent. 6: 213–214, ☿.

abdominalis transvectus W. M. Wheeler. Tex.

Camponotus (Camponotus) abdominalis transvectus W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 299, 326, ☿ ♀ ♂.

Taxonomy: Santschi, 1936. Rev. de Ent. 6: 213, ☿.

Subgenus MYRMENTOMA Forel

Myrmentoma Forel, 1912. Soc. Ent. Belg. Mem. 20: 92.
Type: ***Formica lateralis*** Olivier. Desig. by W. M. Wheeler, 1913.

Revisions: W. M. Wheeler, 1910. N. Y. Ent. Soc. Jour. 18: 216–232.—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 300–301, 342–346.—W. M. Wheeler, 1917. Psyche 24: 27–29.

The Nearctic forms nest in insect galls, in branches and stems of plants, under bark of trees, in wood and buildings, and even in the soil. Colonies are small, consisting of a few dozen to several hundred individuals. The food is largely honeydew and the flesh of arthropods. A number of forms infest human foods, especially sweets, and some of them apparently nest in houses. The group is badly in need of revision.

anthrax W. M. Wheeler. Calif. (vicinity of Santa Barbara).

Camponotus anthrax W. M. Wheeler, 1911. N. Y. Ent. Soc. Jour. 19: 96. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 558.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 89.

caryae caryae (Fitch). N. Y. to Fla., west to Ill. and Miss. Often confused with *C.* (*M.*) *nearcticus* Emery.

Formica caryae Fitch, 1855. N. Y. State Agr. Soc. Trans. 14: 855. ☿ ♀ ♂.

Camponotus marginatus discolor var. ***cnemidatus*** Emery, 1893. Zool. Jahrb., Abt. f. System., 7: 669, 678. ☿.

Biology: M. R. Smith, 1940. Ent. Soc. Wash. Proc. 42: 137–141.

Taxonomy: M. R. Smith, 1940. Ent. Soc. Wash. Proc. 42: 139–141, ☿ ♀ ♂.

caryae discolor (Buckley). Ohio to Ga., west to Kans., Okla. and Tex.

Formica discolor Buckley, 1886. Ent. Soc. Phila. Proc. 6: 166. ☿ ♀.

Biology: W. M. Wheeler, 1902. Tex. Acad. Sci. Trans. 4: 23.—L. G., Jr., and R. G Wesson, 1940. Amer. Midland Nat. 24: 103.

Taxonomy: W. M. Wheeler, 1910. N. Y. Ent. Soc. Jour. 18: 222, 230–231, ☿ ♀ ♂. —Buren, 1944. Iowa State Col. Jour. Sci. 18: 293, ☿.

clarithorax Emery, n. status. Calif.

Camponotus marginatus discolor var. ***clarithorax*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 670, 678. ☿ ♀ ♂.

Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 89.

Taxonomy: W. M. Wheeler, 1910. N. Y. Ent. Soc. Jour. 18: 222, 231–232, ☿ ♀ ♂. —W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 301, ☿.

essigi M. R. Smith, n. status. Calif. (Lagunitas).

Camponotus caryae var. ***essigi*** M. R. Smith, 1923. Ent. News 24: 306. ☿.

Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 89.

hyatti bakeri W. M. Wheeler, n. status. Calif. (Catalina Isl.).

Camponotus hyatti var. ***bakeri*** W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 271. ☿ ♀.

Taxonomy: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 300, 346, ☿ ♀.

hyatti hyatti Emery. Calif., ?Idaho. Original specimens from stem of *Yucca*.
Camponotus (*Camponotus*) *hyatti* Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 669, 680. ☿.
Taxonomy: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 300, ☿.

nearcticus Emery, n. status. Ont. to Fla., west to Minn., Nebr. and Tex. Nests in houses. One of the most common and most widely distributed forms of the subgenus.
?*Formica americana* Buckley, 1866. Ent. Soc. Phila. Proc. 6: 154. ☿ ♀.
Camponotus (*Camponotus*) *marginatus* var. *nearcticus* Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 669, 675. ☿ ♀.
Camponotus (*Camponotus*) *marginatus* var. *minutus* Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 669, 676. ☿ ♀.
Camponotus (*Camponotus*) *marginatus* var. *decipiens* Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 669, 676. ☿ ♀.
Camponotus fallax fallax var. *pardus* W. M. Wheeler, 1910. N. Y. Ent. Soc. Jour. 18: 222, 225. ☿ ♀ ♂.
Camponotus fallax fallax var. *tanquaryi* W. M. Wheeler, 1910. N. Y. Ent. Soc. Jour. 18: 222, 226. ☿ ♀ ♂.
Camponotus fallax rasilis var. *pavidus* W. M. Wheeler, 1910. N. Y. Ent. Soc. Jour. 18: 222, 228. ☿ ♀.
Biology: W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 21: 402–403.—W. M. Wheeler, 1910. N. Y. Ent. Soc. Jour. 18: 220–221.—Davis and Bequaert, 1922. Brooklyn Ent. Soc. Bul. 17: 24.
Taxonomy: W. M. Wheeler, 1910. N. Y. Ent. Soc. Jour. 18: 222–224, ☿ ♀ ♂.—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 300, ☿.—Buren, 1944 Iowa State Col. Jour. Sci. 18: 293, ☿.

rasilis W. M. Wheeler, n. status. S. C. to Fla., west to Iowa, Kans., and Tex. An especially common form in the Gulf Coast States.
Camponotus fallax rasilis W. M. Wheeler, 1910. N. Y. Ent. Soc. Jour. 18: 222, 227. ☿ ♀ ♂
Biology: W. M. Wheeler, 1910. N. Y. Ent. Soc. Jour. 18: 228.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 302–303.
Taxonomy: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 300, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 293–294, ☿.

sayi Emery. Ariz., Calif., ?N. Dak.
Camponotus (*Camponotus*) *sayi* Emery, 1897. Zool. Jahrb., Abt. f. System, 7: 669, 679. ☿.
Biology: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 344.
Taxonomy: W. M. Wheeler, 1909. N. Y. Ent. Soc. Jour. 17: 90, ♀.—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 300, 343–344, ☿.

schaefferi W. M. Wheeler. Ariz. (Huachuca Mts., approx. 5,000 ft.).
Camponotus schaefferi W. M. Wheeler, 1909. N. Y. Ent. Soc. Jour. 17: 88. ☿ ♀.
Biology: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 345.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 557.
Taxonomy: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 300, 344–345, ☿ ♀.

subbarbatus Emery. D. C. to Va., west to Iowa and Kans.
Camponotus (*Camponotus*) *marginatus subbarbatus* Emery, 1893. Zool. Jahrb., Abt. f. System, 7: 669, 676. ☿ ♀ ♂.
Camponotus (*Camponotus*) *marginatus subbarbatus* var. *paucipilis* Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 669, 677. ☿ ♂.
Biology: L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 90, 103.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 294–295.
Taxonomy: W. M. Wheeler, 1910. N. Y. Ent. Soc. Jour. 18: 222, 229–230, ☿ ♀ ♂.—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 300, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 293, ☿.

texanus W. M. Wheeler. Tex. (canyons in Travis County). Nests in houses.
Camponotus texanus W. M. Wheeler, 1903. Psyche 10: 108. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 344.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 557.
Taxonomy: W. M. Wheeler, 1909. N. Y. Ent. Soc. Jour. 17: 90, ☿.—W. M. Wheeler 1910. N. Y. Acad. Sci. Ann. 20: 300, 344–345, ☿ ♂.

Unrecognized Forms of Subgenus Myrmentoma Forel

atra (Buckley). D. C.
Formica atra Buckley, 1866. Ent. Soc. Phila. Proc. 6: 159. ☿.

septentrionale (Buckley). Ill., Mich.
Formica septentrionale Buckley, 1866. Ent. Soc. Phila. Proc. 6: 161. ☿ ♀.

Subgenus COLOBOPSIS Mayr

Colobopsis Mayr, 1861. Die Europäischen Formiciden, pp. 25, 38.
Type: *Formica truncata* Spinola. Desig. by Bingham, 1903.
Revisions: W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 139–158.—W M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 301, 352–353.

The Nearctic forms are confined mainly to the southern half of the United States with the most northern extension in the Mississippi Valley region. They nest in wood, branches of trees and shrubs, insect galls, and nuts. Their nests often are polydomus. The soldier uses its subcylindrical, truncate head for blocking the entrance hole to the nest.

cerberulus Emery. Ariz.; Mexico.
Camponotus (*Colobopsis*) *cerberulus* Emery, 1920. Soc. Ent. Ital. Bol. 52: 34. ♀.
Taxonomy: W. M. Wheeler, 1934. Harvard Univ., Mus. Compar. Zool. Bul. 77: 214–216, ♃ ♂.

etiolatus W. M. Wheeler. Tex.
Camponotus (*Colobopsis*) *abditus* var. *etiolatus* W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 150. ☿ ♃ ♀ ♂.
Biology: W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 153–158.—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 352–353.
Taxonomy: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 301, ♃.—W. M. Wheeler, 1934. Harvard Univ., Mus. Compar. Zool. Bul. 77: 216.

impressus (Roger). Fla., Ga., Tex.
Colobopsis impressa Roger, 1863. Berlin. Ent. Ztschr. 7: 160. ☿.
Biology: W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 16.
Taxonomy: W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 144–146, ♃ ☿ ♀ ♂.–W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 301, ♃.

mississippiensis M. R. Smith. S. C., west to Ill. and Okla.
Camponotus (*Colobopsis*) *mississippiensis* M. R. Smith, 1923. Psyche 30: 83. ☿ ♃.
Biology: M. R. Smith, 1923. Ent. News 35: 127.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 303, 306.
Taxonomy: M. R. Smith, 1923. Ent. News 35: 127, ♃.

obliquus M. R. Smith. S. C., Miss.
Camponotus (*Colobopsis*) *obliquus* M. R. Smith, 1930. Ent. Soc. Amer. Ann. 23: 256. ♃.
Biology: M. R. Smith, 1931. Ent. News 42: 23.
Taxonomy: M. R. Smith, 1931. Ent. News 42: 23, ♃.

pylartes fraxinicola M. R. Smith. S. C. to Ark.
Camponotus (*Colobopsis*) *pylartes fraxinicola* M. R. Smith, 1923. Psyche 30: 86. ☿ ♃.
Biology: M. R. Smith, 1924. Ent. News 35: 127.
Taxonomy: M. R. Smith, 1924. Ent. News 35: 127, ♃.

pylartes pylartes W. M. Wheeler. N. C. to Fla., west to Okla. and Tex.
Camponotus (*Colobopsis*) *pylartes* W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 147. ☿ ♃ ♀.
Biology: W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 153–158.—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 353.
Taxonomy: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 120, ♃.—W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 301, ♃.

pylartes var. **hunteri** W. M. Wheeler. Tex. (Victoria).
Camponotus (*Colobopsis*) *pylartes* var. *hunteri* W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 301, 353. ☿ ♃.
Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 562.

Subgenus MYRMAPHAENUS Emery

Myrmaphaenus Emery, 1920. Rev. Zool. Bot. Africaines 8: 237.
Type: *Camponotus leydigi* Forel. Orig. desig.
Paracolobopsis Emery, 1920. Rev. Zool. Bot. Africaines 8: 249.
Type: *Camponotus salvini* Forel. Orig. desig.
Neomyrmamblys W. M. Wheeler, 1921. Psyche 28: 19.
Type: *Camponotus fastigatus* Roger. Desig. by Santschi, 1921.

Representatives of this Neotropical subgenus have been found in Texas and California.

bruesi W. M. Wheeler. Tex. (Ft. Davis); Mexico.
Camponotus (*Camponotus*) *bruesi* W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 299, 349. ☿.
yogi W. M. Wheeler. Calif. (San Diego).
Camponotus yogi W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 420. ☿.
Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 562.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 92.

Subgenus MANNIELLA W. M. Wheeler

Manniella W. M. Wheeler, 1921. Psyche 28: 19.
Type: *Camponotus sphaericus* Roger. Orig. desig.

This subgenus is known from the West Indies and southwestern United States. Some forms nest in the soil, others in wood.

ulcerosus W. M. Wheeler. Ariz. (Palmerlee). Nests under stones at 5,500–6,000 ft.
Camponotus (*Camponotus*) *ulcerosus* W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 351. ☿.
Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 562.

Subgenus MYRMOBRACHYS Forel

Myrmobrachys Forel, 1912. Soc. Ent. Belg. Mem. 20: 91.
Type: *Formica senex* F. Smith. Desig. by W. M. Wheeler, 1913.
Revision: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 300, 346–349.

This Neotropical subgenus extends into Florida, Arizona, and Texas. Our two forms nest largely under bark of trees and branches, and in logs and stumps.

mina zuni W. M. Wheeler. Ariz. (Tucson). From bark of mesquite. *C. mina mina* Forel occurs in Mexico (Baja Calif.).
Camponotus (*Camponotus*) *mina zuni* W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 300. ☿.
planatus var. **continentis** Forel. Fla., Tex. and Mexico to South America. *C. planatus* Roger occurs in the West Indies.
Camponotus planatus var. *continentis* Forel, 1901. Soc. Ent. Belg. Ann. 45: 371. ☿.
Biology: W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 15.—W. M. Wheeler, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 90: 258.
Taxonomy: W. M. Wheeler, 1910. N. Y. Acad. Sci. Ann. 20: 301, 348–349, ☿ ♀ ♂.

Unrecognized Form of Camponotus Mayr

Formica lauta Say, 1836. Boston Jour. Nat. Hist. 1: 286. ♀ ♂.

Genus PARATRECHINA Motschoulsky

Subgenus PARATRECHINA Motschoulsky

Paratrechina Motschoulsky, 1863. Soc. Nat. Moscou Bul. 36: 13.
Type: (*Paratrechina currens* Motschoulsky)=*Formica longicornis* Latreille. Desig. by W. M. Wheeler, 1911.

The single known species, thought to be a native of India, has been distributed by commerce over the world. In the United States this ant is now well established in towns and cities of the Gulf and Atlantic States; farther inland its distribution is sporadic. In the more northern areas the species lives in greenhouses or apartment buildings.

longicornis (Latreille). Introduced into U. S. For distribution see remarks under the subgenus; especially common in Fla. An important house pest.
Formica longicornis Latreille, 1802. Hist. Nat. Fourmis, p. 113. ☿.
Biology: Phillips, 1934. (Hawaii Univ.) Expt. Sta. Pineapple Prod. Coop. Assoc. Bul. 15: 18, 19.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 869–870.—Turner, 1940. Conn. Agr. Expt. Sta. Bul. 434: 311–312.
Taxonomy: M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 865, 870, ☿.—Bingham, 1903. Fauna of British India, v. 2, pp. 326–327, ☿ ♀ ♂.
Economics: Marlatt, 1928. U. S. Dept. Agr. Farmers' Bul. 740: 6–7.—Phillips, 1934. (Hawaii Univ.) Expt. Sta. Pineapple Prod. Coop. Assoc. Bul. 15: 19.—M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 870.

Subgenus NYLANDERIA Emery

Nylanderia Emery, 1906. Soc. Ent. Belg. Ann. 50: 134.
Type: *Formica vividula* Nylander. Orig. desig.

In the northern sections ants of this subgenus occur in greenhouses; farther south they are capable of living outdoors. The native species nest in soil and rotting wood. Some forms infest human foods, showing an especial fondness for sweets. Although easily recognized generically the ants are difficult to determine specifically. Male genitalia are believed to offer the best characters for separating the species.

arenivaga (W. M. Wheeler). N. J. to Ga., west to Iowa and Tex.
Prenolepis arenivaga W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 391. ☿ ♂.
Biology: M. R. Smith, 1928. Ent. News 39: 278.
Taxonomy: Buren, 1944. Iowa State Col. Jour. Sci. 18: 295, ☿.

arenivaga var. **faisonensis** (Forel). N. C. (Faisons).
Prenolepis (*Nylanderia*) *arenivaga* var. *faisonensis* Forel, 1922. Rev. Suisse de Zool. 30: 98. ☿.

bourbonica (Forel). Fla., S. C. Introduced into U. S., presumably from the Orient on plants. Infests human foods.
Prenolepis nodifera bourbonica Forel, 1886. Soc. Ent. Belg. Ann. 30: 210. ☿ ♀ ♂.
Biology: M. R. Smith, 1930. Fla. Ent. 14: 23–24.
Historical: M. R. Smith, 1930. Fla. Ent. 13: 23–24.—W. M. Wheeler, 1932. N. Y. Ent. Soc. Jour. 40: 16.

bruesii (W. M. Wheeler). Miss., Tex.
Prenolepis bruesii W. M. Wheeler, 1903. Psyche 10: 106. ☿ ♀ ♂.
Biology: M. R. Smith, 1924. Ent. News 35: 122.

fulva pubens (Forel). D. C., N. Y. Introduced into U. S. Established in greenhouses. *P.* (*N.*) *fulva fulva* Mayr occurs in Mexico, Central and South America, West Indies.
Prenolepis fulva pubens Forel, 1893. Ent. Soc. London, Trans., p. 338. ☿ ♀ ♂.
Biology: Marlatt, 1922. U. S. Dept. Agr. Farmers' Bul. 740: 8–9.
Taxonomy: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 636–637, ☿ ♂.
Economics: Marlatt, 1922. U. S. Dept. Agr. Farmers' Bul. 740: 8–9.

parvula (Mayr). N. Y. to Fla., west to Nebr., Kans., and Tex. One of the commonest and most widely distributed forms of the subgenus. Lives in dry or moist habitats. Can be expected to infest houses.
Prenolepis parvula Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 947. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 390.—Talbot, 1934. Ecology 15: 420, 422.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 295, 306.

Taxonomy: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 636, ☿ ♂.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 100, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 295, ☿.

parvula var. **grandula** (Forel). N. C. (Morganton).
Prenolepis (Nylanderia) parvula var. ***grandula*** Forel, 1922. Rev. Suisse de Zool. 30: 98. ☿.

vividula guatemalensis (Forel). Ariz.; Central America.
Prenolepis vividula vividula var. ***guatemalensis*** Forel, 1884. Soc. Vaud. des Sci. Nat. Bul. 20: 348. ☿.
Biology: W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 342.—Cole, 1934. Ent. Soc. Amer. Ann. 27: 401.
Taxonomy: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 392, ☿ ♂.

vividula melanderi (W. M. Wheeler). Kans., Tex.; Mexico.
Prenolepis melanderi W. M. Wheeler, 1903. Psyche 10: 104. ☿ ♀ ♂.
Biology: Mitchell and Pierce, 1912. Ent. Soc. Wash. Proc. 14: 74.
Taxonomy: Emery, 1906. Soc. Ent. Belg. Ann. 50: 132, ♂.

vividula vividula (Nylander). Canada, Fla., Miss., Tex. Widely distributed over the warm regions of the earth. The greenhouse infestations in Canada and northern areas are no doubt due to importation.
Formica vividula Nylander, 1846. Acta Soc. Fenn. 2: 900. ☿ ♀ ♂.
?***Formica perminuta*** Buckley, 1866. Ent. Soc. Phila. Proc. 6: 162. ☿.
?***Formica picea*** Buckley, 1866. Ent. Soc. Phila. Proc. 6: 163. ☿.
?***Formica (Tapinoma) terricola*** Buckley, 1866. Ent. Soc. Phila. Proc. 6: 168. ☿ ♀ ♂.
Biology: Mitchell and Pierce, 1912. Ent. Soc. Wash. Proc. 14: 74.—Marlatt, 1922. U. S. Dept. Agr. Farmers' Bul. 740: 7.
Taxonomy: Emery, 1906. Soc. Ent. Belg. Ann. 50: 130, ☿ ♀ ♂.—Emery, 1910. Deut. Ent. Ztschr., p. 131, ☿ ♀ ♂.

Genus PRENOLEPIS Mayr

Prenolepis Mayr, 1861. Die Europäischen Formiciden, pp. 26, 52.
Type: ***Tapinoma nitens*** Mayr. Desig. by Bingham, 1903.
Revisions: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 635–637.—W. M. Wheeler, 1930. Ent. Soc. Amer. Ann. 23: 1–26.

These ants usually nest in the soil openly or under cover in small to moderate-sized colonies. Workers feed on honeydew, secretions of floral and extrafloral nectaries, exudates from galls, earthworms and arthropods, and ripened or decaying fruits. The ants often invade houses in search of food, and they sometimes forage even at freezing temperatures. Repletes are common. Ants of this genus are among the first to take their nuptial flights in the spring, males and females having overwintered in their nests.

imparis (Say). Ont. to Ga., west to Nebr. and Tex.
Formica imparis Say, 1836. Boston Jour. Nat. Hist. 1: 287. ♀ ♂.
Formica (Tapinoma) Wichita Buckley, 1866. Ent. Soc. Phila. Proc. 6: 169. ☿.
Prenolepis nitens var. ***americana*** Forel, 1891. *In* Grandidier, Hist. Madagascar, v. 20, p. 94. ♂.
?***Tapinoma polita*** F. Smith, 1855. Ent. Soc. London, Trans. 3: 112. ☿.
Biology: Dennis, 1941. Ent. Soc. Amer. Ann. 34: 82–86.—Talbot, 1943. Ecology 24: 31–44.—Talbot, 1943. Ecology 24: 345–352.
Taxonomy: W. M. Wheeler, 1930. Ent. Soc. Amer. Ann. 23: 15–19, ☿ ♀ ♂.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 100, ☿.—Cole 1940. Amer. Midland Nat. 24: 66, 67, ☿.
Economics: M. R. Smith, 1924. Ent. News 35: 122.
Historical: W. M. Wheeler, 1930. Ent. Soc. Amer. Ann. 23: 12–15.

imparis var. **arizonica** W. M. Wheeler. Ariz. (Ramsay Canyon, Huachuca Mts., 5,800 ft.); Mexico (?).
Prenolepis imparis var. ***arizonica*** W. M. Wheeler, 1930. Ent. Soc. Amer. Ann. 23: 22. ☿ ♀ ♂.

imparis var. **californica** W. M. Wheeler. Oreg., Calif., Nev. Reported to feed on succulent tissue of fruit and on fruit buds, damaging these by eating out the centers and leaving only the scales.

Prenolepis imparis var. ***californica*** W. M. Wheeler, 1930. Ent. Soc. Amer. Ann. 23: 23. ☿ ♀ ♂.

Biology: Essig, 1926. Ins. West. No. Amer., p. 866.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 77–78.

Taxonomy: Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Bul. 342: 27, ☿.

Economics: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 78.

imparis var. **coloradensis** W. M. Wheeler. Colo. (Colorado Springs).

Prenolepis imparis var. ***coloradensis*** W. M. Wheeler, 1930. Ent. Soc. Amer. Ann. 23: 22. ☿.

imparis var. **minuta** Emery. Conn. to N. C., west to Wis., Mo., and Okla.; Oreg. and ?Wash.

Prenolepis imparis var. ***minuta*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 636. ☿ ♂.

Taxonomy: W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 591, ☿.—W. M. Wheeler, 1930. Ent. Soc. Amer. Ann. 23: 21, ☿ ♀ ♂.

imparis var. **pumila** W. M. Wheeler. N. Y. to N. C., west to Ind. and Ala.

Prenolepis imparis var. ***pumila*** W. M. Wheeler, 1930. Ent. Soc. Amer. Ann. 23: 21. ☿ ♂.

Biology: Cole, 1940. Amer. Midland Nat. 24: 67.

Taxonomy: Cole, 1940. Amer. Midland Nat. 24: 66, 67, ☿.

imparis var. **testacea** Emery. Pa. to Fla., west to Ill., Tex., and Ariz. W. M. Wheeler considers this a southern form which normally nests in sand or sandy soil at low elevations.

Prenolepis imparis var. ***testacea*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 636. ♀ ♂.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 390.—M. R. Smith, 1928. Ent. News 39: 278.

Taxonomy: W. M. Wheeler, 1930. Ent. Soc. Amer. Ann. 23: 20–21, ☿ ♀ ♂.—Cole, 1940. Amer. Midland Nat. 24: 66–67, ☿.

Genus LASIUS Fabricius

Subgenus LASIUS Fabricius

Lasius Fabricius, 1804. Systema Piezatorum, p. 415.

Type: ***Formica nigra*** Linnaeus. Desig. by Internatl. Comm. Zool. Nomencl. Op. 151, 1944.

Donisthorpea Morice and Durrant, 1914. Ent. Soc. London, Trans., p. 423. N. name.

Type: ***Formica nigra*** Linnaeus. Orig. desig.

Revisions: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 637–639.—W. M. Wheeler, 1916. Psyche 23: 168–173.

In the United States one or more forms occur in every state. These ants nest freely in the soil or under cover, also in rotting wood. Colonies are small to moderate in size. Workers not only attend honeydew-excreting insects but in some instances even foster them.

niger alienus var. **americanus** Emery. Labrador and Que. to Fla., west to B. C. and Calif. *L. niger alienus* Foerster occurs in Europe and Asia. One of the most common and widely distributed North American ants. Highly adaptable. Infests houses, makes objectionable nests on lawns and golf courses, and fosters subterranean plant lice on such crops as corn, cotton, and strawberry.

Lasius niger alienus var. ***americanus*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 639. ☿ ♀ ♂.

?***Formica pallitarsis*** Provancher, 1881. Nat. Canad. 12: 355. ☿ ♂.

Biology: Forbes, 1908. Ill. Agr. Expt. Sta. Bul. 131: 31–44.—Tanquary, 1913. Ill. State Lab. Nat. Hist. Bul. 9: 417–443.

Taxonomy: E. V. Gregg, 1945. Ent. Soc. Amer. Ann. 38: 529–546, ☿ ♀ ♂.

Economics: Metcalf and Flint, 1939. Destructive and Useful Insects, Ed. 2, p. 770.—Schread and Chapman, 1948. Conn. Agr. Expt. Sta. Bul. 515: 4–11.—Schread, 1949. Jour. Econ. Ent. 42: 501–502.

niger sitkaënsis Pergande. Alaska and Canada. Extreme north. and west. U. S. *L. niger niger* (Linnaeus) occurs in Europe and Asia. Common to Canad. and Huds. Zones. Recorded from cold bogs. Infests houses, sometimes nesting in them.

Lasius niger sitkaënsis Pergande, 1900. Wash. Acad. Sci. Proc. 2: 519. ☿.

Biology: W. M. Wheeler, 1915. Psyche 22: 206.—Cole, 1942. Amer. Midland Nat. 28: 374.

Taxonomy: W. M. Wheeler, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 18, 21, ☿.—Cole, 1942. Amer. Midland Nat. 28: 374, ☿.

niger var. **neoniger** Emery. From Que. and N. S. to Ga. to Alaska and Calif. Habits similar to those of *niger alienus* var. *americanus*.

Lasius niger var. ***neoniger*** Emery, 1893. Zool. Jahrb., Abt. f. System, 7: 637. ☿.

Biology: Dennis, 1938. Ent. Soc. Amer. Ann. 31: 295, 306.—R. E. Gregg, 1944. Ent. Soc. Amer. Ann. 37: 457–471.—E. V. Gregg, 1945. Ent. Soc. Amer. Ann. 38: 529–548.

Taxonomy: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 396, ☿ ♀ ♂.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 525, ☿ ♀ ♂.—Cole, 1942. Amer. Midland Nat. 28: 374, ☿.—E. V. Gregg, 1945. Ent. Soc. Amer. Ann. 38: 529–548, ☿ ♀ ♂.

Economics: Severin, 1920. S. Dak. State Ent. Cir. 20: 3.—Schread and Chapman, 1948. Conn. Agr. Expt. Sta. Bul. 515: 18–19.

Subgenus CHTHONOLASIUS Ruzsky

Chtonolasius (!) Ruzsky, 1912. Kasan Zap. Vet. Inst. 29: 630.

Chthonolasius Ruzsky, 1914. Arch. f. Naturgesch. 79, 27. Emend.

Type: ***Formica flava*** Fabricius. Orig. desig.

Revisions: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 637–641.—W. M. Wheeler, 1910. Psyche 17: 235–243.

Ants of this subgenus are more generally subterranean than those of the subgenus *Lasius*. Some forms build large earthen mounds. Food is largely honeydew derived from subterranean plant lice and mealybugs. Some forms are temporary parasites on ants of the subgenus *Lasius*.

brevicornis brevicornis Emery. N. S. and Que. to Fla., west to Alta., Wash., and Calif.

Lasius brevicornis Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 637. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 396.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 526.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 100.

Taxonomy: W. M. Wheeler, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 592–593, ☿.—Cole, 1940. Amer. Midland Nat. 24: 68–69, ☿.—Buren 1944. Iowa State Col. Jour. Sci. 18: 296, ☿.

brevicornis microps W. M. Wheeler. Calif., N. Dak.

Lasius (Formicina) brevicornis microps W. M. Wheeler. 1917. Amer. Acad. Arts and Sci. Proc. 52: 526. ☿.

Biology: G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 253.

flavus claripennis W. M. Wheeler. Wash., Alta., Utah, Sask., Colo. *L. flavus flavus* (Fabricius) occurs in Europe and Asia Minor.

Lasius (Formicina) flavus claripennis W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 527. ☿ ♀ ♂.

Biology: Cole, 1942. Amer. Midland Nat. 28: 375.

Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 374, ☿.

flavus nearcticus W. M. Wheeler. Que. and Ont. to N. C., west to S. Dak., Utah, and Tex. Common in the Eastern and Middle States.

?Formica mellea Provancher, 1881. Nat. Canad. 12: 356. ☿. Preocc.

Lasius flavus nearcticus W. M. Wheeler, 1906. Psyche 13: 38. ☿.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 397.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 100.—Headley, 1943. Ohio Jour. Sci. 43: 29.

Taxonomy: W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 592–593, ☿.—Cole, 1940. Amer. Midland Nat. 24: 68, 70, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 296, 297, ☿.

humilis W. M. Wheeler. Nev. (Pyramid Lake).
Lasius (*Formicina*) *humilis* W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 528. ☿ ♀.

pilosus M. R. Smith. Idaho (Moscow Mt.). This may be the worker of *vestitus* Whlr.
Lasius (*Chthonolasius*) *pilosus* M. R. Smith, 1934. Ent. Soc. Amer. Ann. 27: 384. ☿.

umbratus epinotalis Buren. Iowa (Bellevue). *L.* (*C.*) *umbratus umbratus* (Nylander) occurs in Europe, Asia, and Japan.
Lasius (*Chthonolasius*) *umbratus epinotalis* Buren, 1944. Iowa State Col. Jour. Sci. 18: 296, 297. ☿.

umbratus minutus Emery. "British America"; Maine to Va., west to Iowa. Probably a temporary parasite of *niger alienus* var. *americanus*. Commonly nests in bogs.
Lasius umbratus minutus Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 637, 641. ☿ ♀ ♂.
Biology: Gaige, 1914. Univ. Mich., Mus. Zool., Occas. Papers 5: 3, 4, 21, 23.—W. M. Wheeler, 1915. Psyche 22: 206.—Morris, 1943. Ind. Acad. Sci. Proc. 52: 215.
Taxonomy: W. M. Wheeler, 1910. Psyche 17: 237, 238, 241–242, ☿ ♀ ♂.

umbratus mixtus var. **aphidicola** (Walsh). Que. and Ont. to Fla., west to Idaho and Utah. *L. umbratus mixtus* (Nylander). Occurs in Europe and Asia. A common and widely distributed form. Occasionally makes large mounds. Of some economic importance because of its habit of fostering subterranean plant lice and mealybugs. A temporary parasite of *L.* (*L.*) *niger alienus* var. *americanus* Emery and *L. niger* var. *neoniger* Emery, and possibly *L.* (*C.*) *flavus nearcticus* W. M. Wheeler.
Formica aphidicola Walsh, 1862. Ent. Soc. Phila. Proc. 1: 310. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 397.—M. R. Smith, 1928. Ent. News 39: 277–278.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 90, 101.
Taxonomy: W. M. Wheeler, 1910. Psyche 17: 237–241, ☿ ♀ ♂.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 592, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 296, ☿.

umbratus speculiventris Emery. Conn., N. J., Ill., Tenn.
Lasius speculiventris Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 637, 641. ☿ ♂.
Biology: W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 594.
Taxonomy: W. M. Wheeler, 1910. Psyche 17: 237, 242–243, ☿ ♂.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 592. ☿.

umbratus subumbratus Viereck. Que., N. S., Maine, Ont., Minn., Sask., Wyo., Colo., N. Mex., Ariz., Calif., Utah. Perhaps the most boreal form of the subgenus. Apparently a temporary parasite on colonies of *L.* (*L.*) *niger* var. *neoniger* Emery and *L.* (*L.*) *niger* var. *sitkaensis* Pergande.
Lasius umbratus subumbratus Viereck, 1903. Amer. Ent. Soc. Trans. 29: 73. ♀.
Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 528.—W. M. Wheeler, 1917. Psyche 24: 167–176.
Taxonomy: W. M. Wheeler, 1910. Psyche 17: 237–239, ☿ ♀ ♂.—Cole, 1942. Amer. Midland Nat. 28: 374, ☿.

umbratus vestitus W. M. Wheeler. B. C., Oreg., Idaho. Probably a boreal form.
Lasius umbratus vestitus W. M. Wheeler, 1910. Psyche 17: 238, 242. ♀. For possible synonymy under this form see remarks under *pilosus*.

Subgenus ACANTHOMYOPS Mayr

Acanthomyops Mayr, 1862. Zool.-Bot. Gesell. Wien, Verh. 12: 699.
Type: ***Formica clavigera*** Roger. Monob.
Revisions: Emery, 1893. Zool. Jahrb., Abt. f. system. 7:638, 642.—W. M. Wheeler, 1916. Psyche 23: 170–172.—Buren, 1950. Ent. Soc. Wash. Proc. 52: 184-190.

Distributed from Canada to Mexico. The ants nest in the soil, usually beneath objects, and also in rotting logs and stumps, and are

subterranean in habit. The females and workers have a characteristic citronella or lemon-verbena odor which no other forms of *Lasius* possess. Species of *Acanthomyops* are of some economic importance because they foster honeydew-excreting insects and because of their objectionable habit of nesting around foundations of buildings and beneath basement floors. The winged forms are often mistaken for termites.

claviger claviger (Roger). Ont. to Fla., west to Wash., Utah, and N. Mex. Unusually common in the Eastern and Central States. Has dimorphic females.

Formica clavigera Roger, 1862. Berlin. Ent. Ztschr. 6: 241. ♀.

Acanthomyops claviger Mayr, 1862. Zool.-Bot. Gesell. Wien, Verh. 12: 700. Emend.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 398.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 296, 397.—Rau, 1945. Ent. News 56: 119.

Morphology: W. M. Wheeler and J. F. McClendon, 1903. Biol. Bul. 4: 149–155.

Taxonomy: Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 950, ☿ ♀ ♂.—Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 638, 642, ☿ ♀.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 296, ☿.

claviger subglaber Emery. Maine to D. C., west to N. Dak.

Lasius claviger var. ***subglaber*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 642. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 623.

Taxonomy: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 398, ☿ ♀ ♂.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 533, ☿ ♀.

clavigeroides Buren. Wis. (near Solon Springs). May be a temporary social parasite on one of the varieties of *Lasius niger* (Linnaeus).

Lasius (Acanthomyops) clavigeroides Buren, 1942. Iowa State Col. Jour. Sci. 16: 406. ☿ ♀ ♂.

interjectus arizonicus W. M. Wheeler. Ariz. (Huachuca Mts.).

Lasius (Acanthomyops) interjectus arizonicus W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 532. ☿.

interjectus californicus W. M. Wheeler. Calif. (vicinity of Claremont, 2,000 ft.).

Lasius (Acanthomyops) interjectus californicus W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 531. ☿ ♀.

interjectus coloradensis W. M. Wheeler. Colo., N. Mex. Common to Transit. Zone in Colo.

Lasius (Acanthomyops) interjectus coloradensis W. M. Wheeler, 1917. Amer. Acad. Arts. and Sci. Proc. 52: 532. ☿ ♀ ♂.

interjectus interjectus Mayr. Mass. to Fla., west to Wash., Utah, and N. Mex. One of the most common members of the subgenus, especially in the Eastern and Central States.

Lasius (Acanthomyops) interjectus Mayr, 1866. Zool.-Bot. Gesell. Wien, Verh. 16: 888. ♀.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 397–398.—Roger C. Smith, 1928. Kans. Ent. Soc. Jour. 1: 14–18.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 296, 306.

Taxonomy: W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 592, 594, ☿ ♀.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 296, ☿.

latipes (Walsh). Ont., Que. to S. C., west to Alaska, Wash. and Calif. Widely but apparently sporadically distributed; more common in the Eastern and Central States. General habits similar to other members of the subgenus. Has dimorphic females known as the alpha and beta forms.

Formica latipes Walsh, 1862. Ent. Soc. Phila. Proc. 1: 311. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 398.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 530–531.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 41: 79.

Morphology: W. M. Wheeler and J. F. McClendon, 1903. Biol. Bul. 4: 149–155.—W. M. Wheeler, 1903. Amer. Mus. Nat. Hist. Bul. 19: 650–651.

Taxonomy: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 638, 642, ☿ ♀.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 592, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 296, ☿.

murphyi Forel. Ont. to Ga., west to Mont. and Utah. According to W. M. Wheeler this form "appears to belong to dryer and warmer portions of the Transition Zone and to be rare in all parts of its range." Like other forms it nests occasionally beneath basement floors or around foundations of buildings.

Lasius (*Acanthomyops*) *Murphii* Forel, 1901. Soc. Ent. Belg. Ann. 45: 367. ☿ ♀ ♂.

Lasius (*Acanthomyops*) *murphyi* W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 398. Emend.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 398.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 530.

occidentalis W. M. Wheeler. Colo., N. Mex. Not known to occur east of Rocky Mts.

Lasius (*Acanthomyops*) *occidentalis* W. M. Wheeler, 1909. N. Y. Ent. Soc. Jour. 17: 83. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 530.

parvulus M. R. Smith. Ill. (Herrin). Associated with *L. niger* (Linnaeus) var.

Lasius (*Acanthomyops*) *parvula* M. R. Smith, 1934. Psyche 41: 213. ☿.

Lasius (*Acanthomyops*) *parvulus* M. R. Smith, 1947. Amer. Midland Nat. 37: 616. Emend.

plumopilosus Buren. Iowa (Backbone State Park). Probably a highly specialized parasite on some other form of *Lasius*, possibly *claviger*.

Lasius (*Acanthomyops*) *plumopilosus* Buren, 1941. Iowa State Col. Jour. Sci. 15: 231–235. ☿ ♀ ♂.

Biology: Buren, 1944. Iowa State Col. Jour. Sci. 18: 299.

Taxonomy: Buren, 1944. Iowa State Col. Jour. Sci. 18: 296, ☿.

pogonogynus Buren. Iowa, Colo.

Lasius (*Acanthomyops*) *pogonogynus* Buren, 1950. Ent. Soc. Wash. Proc. 52: 186. ☿ ♀.

pubescens Buren. Minn. (near Jenkins). May be parasitic on one of the varieties of *Lasius niger*.

Lasius (*Acanthomyops*) *pubescens* Buren, 1942. Iowa State Col. Jour. Sci. 16: 405. ☿ ♀.

Unrecognized Forms of Lasius Fabricius

Formica monticola Buckley, 1866. Ent. Soc. Phila. Proc. 6: 157. ☿ ♀ ♂.

Formica saxicola Buckley, 1866. Ent. Soc. Phila. Proc. 6: 166. ☿ ♀.

Genus MYRMECOCYSTUS Wesmael

Myrmecocystus Wesmael, 1838. Brussels Acad. Roy. Belg. Bul. de Cl. des Sci. 5: 769.

Type: *Myrmecocystus mexicanus* Wesmael. Monob.

Revisions: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 666–667.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 345–397.—W. M. Wheeler, 1912. Psyche 19: 172–181.

Native to Mexico and western United States; especially typical of the arid plains and deserts of the Western States. The ants nest in the soil, usually in small colonies of only a few hundred individuals. Some forms are apparently entirely predaceous or carnivorous; others live on honeydew and nectar obtained from plants or the secretions of galls. Some are diurnal, others nocturnal. Repletes are known to occur in many forms. These ants are called "honey ants" because of the honeylike substance stored in the gasters of the repletes. Owing to the high degree of polymorphism in many forms, these ants are not easily determined specifically without large series of workers, especially major ones.

hammettensis Cole. Idaho (Hammett).

Myrmecocystus hammettensis Cole, 1938. Amer. Midland Nat. 19: 678. ☿ ♀ ♂.

idahoensis Cole, n. status. Idaho (Hollister).

Myrmecocystus mexicanus idahoensis Cole, 1936. Ent. News 47: 118. ☿ ♀ ♂.

lugubris W. M. Wheeler. Calif. (Otis).
Myrmecocystus lugubris W. M. Wheeler, 1909. N. Y. Ent. Soc. Jour. 17: 98. ☿.
Biology: Cole, 1934. Ent. Soc. Amer. Ann. 27: 403.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 20.
Taxonomy: W. M. Wheeler, 1912. Psyche 19: 174, 176, ☿.

melliger lomaënsis W. M. Wheeler. Calif. (vicinity of San Diego). Diurnal. Workers visit floral nectaries.
Myrmecocystus melliger lomaënsis W. M. Wheeler, 1912. Psyche 19: 174. ☿, replete ☿, ♀.
Biology: Leonard, 1911. San Diego Soc. Nat. Hist. Trans. 1: 96–97.—W. M. Wheeler, 1912. Psyche 19: 172.

melliger melliger Forel. Ariz., N. Mex., Tex.; Mexico. Used as food and medicine by Indians. Workers diurnal.
?*Formica melligera* Llave, 1832. Reg. Trim. o. Collect. Mem. Hist. Lit., p. 463. ☿.
Myrmecocystus melliger Forel, 1886. Soc. Ent. Belg. Ann. 30: 201. ☿.
Biology: W. M. Wheeler, 1907. Biol. Bul. 13: 199.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 346, 361–364.—W. M. Wheeler, 1926. Ants, pp. 10, 201, 366, 368.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 348–349, ☿, replete ☿.—W. M. Wheeler, 1912. Psyche 19: 173–175, ☿ ♀ ♂.

melliger mendax W. M. Wheeler. Utah, Ariz., Colo. Resembles *melliger orbiceps* in appearance and habits but is more northern in distribution. Predaceous and insectivorous. No repletes have been observed so far.
Myrmecocystus melliger mendax W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 351. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 366–367.—W. M. Wheeler, 1926. Ants, p. 376.—Cole, 1942. Amer. Midland Nat. 28: 386.
Taxonomy: W. M. Wheeler, 1912. Psyche 19: 173, ☿.—Cole, 1942. Amer. Midland Nat. 28: 385, ☿.

melliger mendax var. **comatus** W. M. Wheeler. Tex. (Ft. Davis). No repletes have been observed so far. Predaceous and insectivorous.
Myrmecocystus melliger mendax var. *comatus* W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 352. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 366–367.
Taxonomy: W. M. Wheeler, 1912. Psyche 19: 173, ☿.

melliger mimicus W. M. Wheeler. Ariz., Calif., N. Mex., Tex. Said to be the most abundant and widely distributed form of the genus from the Pecos River in Texas to the Mojave Desert. Habitat extremely arid.
Myrmecocystus melliger mimicus W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 353. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 367–368.—Cole, 1934. Ent. Soc. Amer. Ann. 27: 401–402.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 80.
Taxonomy: W. M. Wheeler, 1912. Psyche 19: 174, ☿.

melliger mimicus var. **californicus** Cole. Calif. (Weed).
Myrmecocystus melliger mimicus var. *californicus* Cole, 1936. Ent. News 47: 118. ☿.

melliger mimicus var. **depilis** Forel. Calif. (Needles).
Myrmecocystus melliger var. *depilis* Forel, 1901. Soc. Ent. Belg. Ann. 45: 135. ☿.
Biology: W. M. Wheeler, 1901. Soc. Ent. Belg. Ann. 45: 205.—W. M. Wheeler, 1912. Psyche 19: 176.—Cole, 1934. Ent. Soc. Amer. Ann. 27: 402.
Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 354, ☿.—W. M. Wheeler, 1912. Psyche 19: 173, ☿.

melliger mimicus var. **jesuita** W. M. Wheeler. Ariz., Tex.
Myrmecocystus melliger mimicus var. *jesuita* W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 354. ☿.
Myrmecocystus melliger semirufus var. *romainei* Cole, 1936. Ent. News 47: 120. ☿.
Taxonomy: W. M. Wheeler, 1912. Psyche 19: 174, ☿.

melliger orbiceps W. M. Wheeler. Ariz., N. Mex., Tex. For interesting information concerning this ant see remarks under biology.

Myrmecocystus melliger orbiceps W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 349. ☿ ♀.

Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 364–366.—Parks, 1929. Brooklyn Ent. Soc. Bul. 24: 32–34.

Taxonomy: W. M. Wheeler, 1912. Psyche 19: 173, ☿.

melliger semirufus Emery. Calif., Idaho, Utah, Ariz., Colo., N. Mex. One of the most common forms of desert ant in Arizona and the Mojave Desert. Colonies usually populous. Makes crater nests in the soil 3-6 inches in diameter each with a single entrance.

Myrmecocystus melliger var. *semirufus* Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 667. ☿ ♂.

Mrymecocystus melliger semirufus var. *kennedyi* Cole, 1936. Ent. News 47: 119. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 368–369.—W. M. Wheeler, 1912. Psyche 19: 176.—Mallis, 1941. South. Calif. Acad. Sci. Bul 40: 80.

Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 355, ☿ ♂.—W. M. Wheeler, 1912. Psyche 19: 174, 176, ☿.—Cole, 1938. Amer. Midland Nat. 20: 371–372, replete ☿.

melliger semirufus var. **testaceus** Emery. Calif., Ariz. Commonly nests in sandy, arid areas, more or less devoid of vegetation. Nests usually crater shaped. Colonies small. Workers forage at midday.

Myrmecocystus melliger var. *testaceus* Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 667. ☿.

Biology: W. M. Wheeler, 1926. Ants., p. 349.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 81.

Taxonomy: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 355–356, ☿.—W. M. Wheeler, 1912. Psyche 19: 174, ☿.

mexicanus Wesmael. Calif., Ariz., Mexico.

?*Formica melligera* Llave, 1832. Reg. Trim. o. Collect. Mem. Hist. Lit., p. 463. ☿.

Myrmecocystus Mexicanus Wesmael, 1838. Brussels Acad. Roy. Belg. Bul. de Cl. des. Sci. 5: 770. ☿.

Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 361–364.—Leonard, 1911. San Diego Soc. Nat. Hist. Trans. 1: 92–96.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 81.

Taxonomy: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 666, ☿.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 356–358, ☿, replete ☿.—W. M. Wheeler, 1912. Psyche 19: 173, 178, ☿.

mexicanus var. **horti-deorum** McCook. Calif., Utah, Ariz., Colo., N. Mex. The citation of this form from Louisiana is undoubtedly incorrect. A typical inhabitant of the high plains of the Western States but occurring to a limited extent in deserts.

Myrmecocystus Melliger var. *hortus-deorum* McCook, 1881. Phila. Acad. Nat. Sci. Proc., pp. 65, 69. ☿, replete ☿, ♀ ♂.

Biology: McCook, 1881. Acad. Nat. Sci. Phila. Proc., pp. 17–77.—McCook, 1882. The Honey Ants of the Garden of the Gods and the Occident Ants of the American Plains, pp. 17–74.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 369–380.

Taxonomy: McCook, 1882. The Honey Ants of the Garden of the Gods and the Occident Ants of the American Plains, pp. 75–76, ☿, replete ☿, ♀ ♂.—Forel, 1866. Soc. Ent. Belg. Ann. 30: 202, ☿ ♀ ♂.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 358–360, ☿, replete ☿, ♀ ♂.—W. M. Wheeler, 1912. Psyche 19: 173, ☿.

mojave W. M. Wheeler, n. status. Calif. Craterlike nests 4-8 inches in diameter with a central opening are constructed in dry, hard soil, especially in roads and paths where there is considerable vegetation such as chaparral, live oaks, and scrub oaks.

Myrmecocystus mexicanus mojave W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 360. ☿.

Biology: Leonard, 1911. San Diego Soc. Nat. Hist. Trans. 1: 87–92.—Cole, 1934. Ent. Soc. Amer. Ann. 27: 403.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 81.
Taxonomy: W. M. Wheeler, 1912. Psyche 19: 173, 179–181, ☿, replete ☿, ♀ ♂.

navajo W. M. Wheeler, n. status. Utah, N. Mex. Nests are inconspicuous and colonies small (100-150 workers). Said to be a nocturnal form. No repletes have been observed.
Myrmecocystus mexicanus navajo W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 360. ☿ ♀.
Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 381–382.—Cole, 1934. Ent. Soc. Amer. Ann. 27: 402.—Cole, 1942. Amer. Midland Nat. 28: 386.
Taxonomy: W. M. Wheeler, 1912. Psyche 19: 173, 179, ☿.—Cole, 1942. Amer. Midland Nat. 28: 385–386, ☿.

yuma W. M. Wheeler. Idaho, Ariz. Constructs small crater nests 3-4 inches in diameter. No repletes are known. Workers might be mistaken for the small, dark *Dorymyrmex pyramicus* var. *niger*.
Myrmecocystus yuma W. M. Wheeler, 1912. Psyche 19: 174, 176. ☿.
Biology: Cole, 1934. Psyche 41: 225.—Cole, 1934. Ent. Soc. Amer. Ann. 27: 403.—Cole, 1936. Canad. Ent. 68: 39.

yuma var. **flaviceps** W. M. Wheeler. Ariz. (Yuma). Constructs crater nests 6-8 inches across, with entrance nearly ½ inch in diameter. Nests are more populous than those of *yuma*. No repletes are known.
Myrmecocystus yuma var. ***flaviceps*** W. M. Wheeler, 1912. Psyche 19: 174, 177. ☿.

Genus FORMICA Linnaeus

One of the largest genera of ants. The genus includes the three subgenera *Proformica, Neoformica,* and *Formica*. For the sake of convenience the subgenus *Formica* has been split into five groups, called the fusca, rufa, microgyna, exsecta, and sanguinea groups. Ants of the genus *Formica* nest in both soil and rotting wood; they have an unusually wide distribution and occur in many diverse habitats. Their food is largely honeydew and small arthropods. Most forms are free living but some are temporary parasites; others are slave makers and still others are slaves.

Subgenus PROFORMICA Ruzsky

Proformica Ruzsky, 1903. Soc. Ent. Rossica Horae 36: 303.
Type: ***Formica nasuta*** Nylander. Desig. by W. M. Wheeler, 1911.
Revision: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 387, 399–400, 401–425.

These ants are distributed from Alaska to at least as far south as the 35th degree of latitude in the United States. The subgenus contains some of our smallest forms of *Formica*. The small colonies are usually constructed in the soil freely or under cover. The ants are timid and are enslaved by *Formica* of the sanguinea group.

neogagates lasioides Emery. Calif., Colo., N. Dak., S. Dak., Mass.
Formica lasioides Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 646, 664. ☿.
Biology: G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 268.
Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 400, 539–540, ☿.

neogagates lasioides var. **limata** W. M. Wheeler. Minn., N. Dak., Colo., N. Mex.
Formica (Proformica) limata W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 400, 541. ☿.
Biology: G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 268.—R. E. Gregg, 1946. Amer. Midland Nat. 35: 750.

neogagates lasioides var. **vetula** W. M. Wheeler. N. S., Que. to Conn., west to the Pacific Coast. Enslaved by *F. (F.) curiosa* Creight. and *F. (F.) sanguinea* subspp. *puberula* Emery and *subintegra* Emery.

Formica lasioides var. ***picea*** Emery, 1895. Zool. Jahrb., Abt. f. System. 8: 335. ☿. Preocc.

Formica lasioides var. ***vetula*** W. M. Wheeler, 1912. Psyche 19: 90. N. name.

Biology: Cole, 1942. Amer. Midland Nat. 28: 384.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 308.—G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 268–269.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 400, 540–541, ☿ ♀ ♂.—R. E. Gregg, 1944. Ent. Soc. Amer. Ann. 37: 472, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 299, ☿.

neogagates neogagates Emery. N. S., Que. to N. C., west to Alaska, B. C., and Oreg. Nests from sea level to approx. 8,000 ft. Enslaved by *Formica sanguinea* Latr. subspecies: *rubicunda* Emery, *subintegra* Emery, *emeryi* Whlr.

Formica fusca subpolita var. ***neogagates*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 646, 661. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 401.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 102.—G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 268.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul 53: 400, 536–538, ☿ ♀ ♂.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 596, ☿.

neogagates neogagates var. **morbida** W. M. Wheeler. Ill., Iowa, Nebr., S. Dak.

Formica (Proformica) neogagates neogagates var. ***morbida*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 400, 538. ☿ ♀.

Taxonomy: Buren, 1944. Iowa State Col. Jour. Sci. 18: 299, ☿.

neogagates neogagates var. **vinculans** W. M. Wheeler. Ill., Iowa, Nebr.

Formica (Proformica) neogagates neogagates var. ***vinculans*** W. M. Wheeler 1913. Harvard Univ., Mus. Compar. Zool. Bul 53: 400, 539. ☿ ♀.

Biology: Buren, 1944. Iowa State Col. Jour. Sci. 18: 309.

Taxonomy: Buren, 1944. Iowa State Col. Jour. Sci. 18: 299, ☿.

Subgenus NEOFORMICA W. M. Wheeler

Neoformica W. M. Wheeler. N. Y. Acad. Sci. Ann. 23: 82.
Type: ***Formica pallide-fulva*** Latreille. Desig. by W. M. Wheeler, 1913.

Revisions: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 645, 654–657.—W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 369–371.—W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 401, 548–560.

Distribution solely Nearctic. In the United States, ants of the pallide-fulva group have been recorded from New Mexico and Wyoming eastward to the Atlantic Ocean and those of the moki group from Arizona, Utah, and Washington. These ants form colonies of small or moderate size in the soil openly or under cover. Some forms nest in rotting wood. Their food is largely honeydew and the flesh of small arthropods. They are docile and are enslaved by ants of the genus *Polyergus* and by various forms of *Formica sanguinea* Latr.

moki grundmanni Cole. Utah (Parley's Canyon, Salt Lake County).

Formica moki grundmanni Cole, 1943. Amer. Midland Nat. 29: 184. ☿.

moki moki W. M. Wheeler. Ariz., Utah. Colonies are small to moderate in size. and occur in the soil under stones in open, arid regions.

Formica moki W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 343. ☿.

Biology: Cole, 1942. Amer. Midland Nat. 28: 385.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53:400, 558–560.—M. R. Smith, 1939. Ent. Soc. Amer. Ann. 32: 582–583, ☿.—Cole, 1943. Amer. Midland Nat. 29: 183, ☿.

moki xerophila M. R. Smith. Wash. (Leavenworth).

Formica (Neoformica) moki xerophila M. R. Smith, 1939. Ent. Soc. Amer Ann. 32: 583. ☿.

Taxonomy: Cole, 1943. Amer. Midland Nat. 29: 184, ☿.

pallide-fulva archboldi M. R. Smith. Ga., Fla. Soil-nesting. Workers bear a superficial resemblance to *Formica* (*F.*) *pallide-fulva nitidiventris* var. *fuscata* Emery.

Formica pallide-fulva archboldi M. R. Smith, 1944. Fla. Ent. 27: 16. ☿.

Biology: Schneirla, 1944. Amer. Mus. Novitates 1261: 1–2.

pallide-fulva delicata Cole. Wyo. (Ten Sleep).

Formica pallide-fulva delicata Cole, 1938. Amer. Midland Nat. 20: 369. ☿ ♀.

pallide-fulva nitidiventris Emery. Ont., Que., eastern half of U. S., Kans., Nebr., Colo., N. Mex. Enslaved by *Polyergus lucidus lucidus* Mayr and *Formica* (*F.*) *sanguinea* subspp. *puberula* Emery and *subintegra* Emery.

Formica pallide-fulva nitidiventris Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 645, 656. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 401.—W. M. Wheeler, 1917 (1916). Ind. Acad. Sci. Proc. 26: 465.—Rau, 1934. Acad. Sci. St. Louis Trans. 28: 211–212.—Talbot, 1948. Ecology 29: 316–325.

Taxonomy: W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 370, ☿.—W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 401, 555–557, ☿ ♀ ♂.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 595, 598, ☿.

Economics: Schread and Chapman, 1948. Conn. Agr. Expt. Sta. Bul. 515: 18.

pallide-fulva nitidiventris var. **fuscata** Emery. Ont. to Ga., west to N. Dak. and N. Mex. Enslaved by *Formica sanguinea* subspp. *rubicunda* Emery and *subintegra* Emery.

Formica pallide-fulva fuscata Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 645, 656. ☿.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 401.—L. G., Jr. and R. G. Wesson, 1940. Amer. Midland Nat. 24: 102.—Cole, 1940. Amer. Midland Nat. 24: 82.

Taxonomy: W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 370, ☿.—W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 401, ☿.—W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 401, 557, ☿ ♀.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 299, 310, ☿ ♀.

pallide-fulva pallide-fulva Latreille. N. Y. to Fla., west to Kans. and Nebr. Apparently enslaved by *Formica* (*F.*) *pergandei* Emery.

Formica pallide-fulva Latreille, 1802. Hist. Nat. Fourmis, p. 174. ☿.

Biology: Schneirla, 1944. Amer. Mus. Novitates 1261: 2–3.

Taxonomy: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 645, 656–657, ☿.—W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 369, ☿.—W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 401, 548–551, ☿ ♀ ♂.

pallide-fulva schaufussi Mayr. Ont. to Fla., west to Wis. and Miss.; Kans. Enslaved by *Polyergus lucidus lucidus* Mayr, *P. lucidus longicornis* Smith, and *Formica sanguinea* subspp. *rubicunda* Emery and *subintegra* Emery.

Formica Schaufussi Mayr, 1886. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 53: 493. ☿.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 400.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 598.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 298, 306.

Taxonomy: Emery, 1893. Zool. Jahrb., Abt. f. Sytem. 7: 645, 654–655, ☿.—W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 370, ☿.—W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 401, 552–553, ☿ ♀ ♂.—Cole, 1940. Amer. Midland Nat. 24: 73, ☿.

pallide-fulva schaufussi var. **dolosa** W. M. Wheeler. N. C. to Ga., west to Iowa and Tex.

Formica pallide-fulva schaufussi var. ***meridionalis*** W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 370. ☿. Preocc.

Formica pallide-fulva schaufussi var. ***dolosa*** W. M. Wheeler, 1912. Psyche 19: 90. N. name.

Biology: W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 370.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 299, 306.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 401, 554, ☿ ♀.—Cole, 1940. Amer. Midland Nat. 24: 73, 79, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 299, ☿.

pallide-fulva schaufussi var. **incerta** Emery. Ont. to Ga., west to Minn., Nebr., Colo., and N. Mex. Enslaved by *Polyergus lucidus lucidus* Mayr and *Formica* (*F.*) *sanguinea subintegra* Emery. Temporary host of *Formica* (*F.*) *difficilis*.

Formica pallide-fulva schaufussi var. ***incerta*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 645, 655. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 347–371.—Talbot, 1946. Ecology 27: 65–70.—Talbot, 1948. Ecology 29: 316–325.

Taxonomy: W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 370–371, ☿.—W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 401, 554–555, ☿ ♀ ♂.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 595, 598, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 299, 309, ☿.

pallide-fulva var. **succinea** W. M. Wheeler. Tenn., Miss., Okla., Tex.

Formica pallide-fulva var. ***succinea*** W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 369. ☿.

Biology: Dennis, 1938. Ent. Soc. Amer. Ann. 31: 298, 306.—Cole, 1940. Amer. Midland Nat. 24: 81.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ. Mus. Compar. Zool. Bul. 53: 401, 551–552, ☿ ♀ ♂.—Cole, 1940. Amer. Midland Nat. 24: 73, 81, ☿.

Subgenus FORMICA Linnaeus

Formica Linnaeus, 1758. Syst. Nat., ed. 10, v. 1, p. 579.
Type: ***Formica rufa*** Linnaeus. Desig. by Curtis, 1839.

Formicina Shuckard, 1840. Hist. Nat. Ins. Hym., p. 172.
Type: ***Formica rufa*** Linnaeus. Desig. by W. M. Wheeler, 1911.

Serviformica Forel, 1913. Soc. Ent. Belg. Ann. 57: 361. N. syn.
Type: ***Formica fusca*** Linnaeus. Orig. desig.

Raptiformica Forel, 1913. Soc. Ent. Belg. Ann., p. 361. N. syn.
Type: ***Formica sanguinea*** Latreille. Orig. desig.

Coptoformica Mueller, 1923. Soc. Adriat. di Sci. Nat. Trieste, Bol. 28: 133. N. syn.
Type: ***Formica exsecta*** Nylander. Desig. by Donisthorpe, 1941.

Adformica Lomnicki, 1925. Polski Pismo Ent. 3: 164. N. syn.
Type: ***Formica exsecta*** Nylander. Desig. by Donisthorpe, 1927.

Revisions: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 643–654, 657–665, 663.—W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 387–399, 401–536, 560–565.—Creighton, 1940. Amer. Mus. Novitates 1055: 1–10 (*rufa* subspecies).

This subgenus is divided into 5 groups, namely, the fusca, sanguinea, exsecta, rufa, and microgyna groups. Members of the fusca group are timid or docile and some are enslaved by certain forms of *Formica* (*F.*). *sanguinea* and *Polyergus;* others are hosts of temporary parasites of the rufa, microgyna, and exsecta groups. Most of the forms of *sanguinea* enslave other ants belonging to the fusca group and to the subgenera *Proformica* and *Neoformica*. The best known form of the exsectoides group is the Allegheny mound ant, *Formica exsectoides exsectoides*, whose large mounds attract the attention of the most casual observer. The rufa group contains forms that make conspicuous nests in rotting wood or in soil, which they cover with vegetable detritus. Many are temporary parasites on members of *Neoformica* and of the fusca group of *Formica*. The habits of members of the microgyna group are somewhat similar to those of the rufa group. In these ants the females are exceptionally small; they are usually even smaller than workers.

aterrima Cresson. (In rufa group.) Colo.

Formica aterrima Cresson, 1865. Ent. Soc. Phila. Proc. 4: 426. ♂.

Taxonomy: Brown, 1947. Ent. News 58: 8–9. ♂.

bradleyi W. M. Wheeler. (In sanguinea group.) N. Dak. and Kans. to Alta. and Colo. Commonly lives in arid, sandy areas. Attends honeydew-excreting insects. This may be a *Proformica*.

Formica bradleyi W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 389, 423. ☿ ♂.
Biology: G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 258–259.
Taxonomy: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 535, ♀.

ciliata Mayr. (In rufa group.) Colo., Minn., Mont., Utah, Wyo. Temporary host: Probably some form of *Formica* (*F.*) *fusca* L.
Formica ciliata Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 428. ☿.
Biology: W. M. Wheeler, 1909. N. Y. Ent. Soc. Jour. 17: 88.—W. M. Wheeler, 1926. Ants, pp. 114, 120, 205, 351, 444–445, 450.
Taxonomy: W. M. Wheeler, 1903. Amer. Mus. Nat. Hist. Bul. 19: 639–643, ☿ ♀ ♂. —W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 392–393, 452–454, ☿ ♀ ♂.

cinerea var. **altipetens** W. M. Wheeler. (In fusca group.) B. C., Rocky Mt. States and Mexico. Also N. Dak. *Formica* (*F.*) *cinerea cinerea* Mayr, 1853, occurs in Europe and Asia. Enslaved by *Polyergus rufescens breviceps* Emery, *Formica* (*F.*) *sanguinea puberula* Emery, and an alpine form of *sanguinea*. Sometimes nests in cold bogs.
Formica cinerea cinerea var. ***altipetens*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 399, 523. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1915. Psyche 22: 206.—G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 259.
Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 377, 383, ☿.

cinerea var. **canadensis** Santschi. (In fusca group.) Idaho, Sask., Wyo.
Formica cinerea var. ***canadensis*** Santschi, 1913. Soc. Ent. Belg. Ann. 57: 435. ☿ ♀.
Taxonomy: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 550–551, ☿ ♀.

cinerea var. **lepida** W. M. Wheeler. (In fusca group.) Wash., Calif.; Mexico.
Formica cinerea cinerea var. ***lepida*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 399, 526. ☿.
Taxonomy: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 551, ☿ ♀.

cinerea var. **montana** Emery, n. status. (In fusca group.) Nebr., Ohio (?).
Formica fusca subpolita var. ? ***montana*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 646, 663. ☿.
Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 399, 529–530, ☿.

cinerea var. **neocinerea** W. M. Wheeler. (In fusca group.) Ohio, Ind., No. Cent. States, Rocky Mt. States, and Pacific Coast States. A common ant in bogs and meadows, especially of Illinois. Enslaved by *Formica* (*F.*) *sanguinea* subspp. *puberula* Emery, *rubicunda* Emery, and *subintegra* Emery, and *Polyergus rufescens breviceps* Emery. Infests houses.
Formica cinerea var. ***neocinerea*** W. M. Wheeler, 1910. Ants, p. 571. *Nom. nud.*
Formica cinerea var. ***neocinera*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 524. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1902. Amer. Nat. 36: 948–952.—W. M. Wheeler, 1915. Psyche 22: 206.—W. M. Wheeler, 1926. Ants. pp. 201, 203, 460–461, 475.—R. E. Gregg, 1948. Ent. Soc. Wash. Proc. 50: 183–186.
Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 377, 383, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 300, ☿.

cinerea var. **rutilans** W. M. Wheeler. (In fusca group.) Idaho, Ill., N. Dak., Ohio.
Formica cinerea cinerea var. ***rutilans*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 399, 525. ☿.
Biology: Amstutz, 1943. Ohio Jour. Sci. 43: 172.

comata W. M. Wheeler. (In rufa group.) S. Dak. and Rocky Mt. States. Temporary host probably a form of *fusca*.
Formica comata W. M. Wheeler, 1909. N. Y. Ent. Soc. Jour. 17: 85. ☿ ♀ ♂.
Biology: Cole, 1942. Amer. Midland Nat. 28: 379.
Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 392, 393, 454–456, ☿ ♀ ♂.—Cole, 1942. Amer. Midland Nat. 28: 376, 379, ☿.

criniventris W. M. Wheeler. (In rufa group.) N. Dak., S. Dak., Mont., Wyo., Colo., Utah. Temporary host, probably same as for *comata*.

Formica crinita W. M. Wheeler, 1909. N. Y. Ent. Soc. Jour. 17: 87. ☿ ♀. Preocc.

Formica criniventris W. M. Wheeler, 1912. Psyche 19: 90. N. name.

Biology: W. M. Wheeler, 1926. Ants, pp. 114, 444–445, 450.—G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 260.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 392, 393, 457–458, ☿ ♀.—Cole, 1942. Amer. Midland Nat. 28: 376, 379, ☿.

curiosa Creighton. (In sanguinea group.) Mont. (Lake McGregor). Slave, *F.* (*Proformica*) *neogagates lasioides* var. *vetula* Whlr.

Formica curiosa Creighton, 1935. Amer. Mus. Novitates 773: 5. ☿ ♀.

dakotensis Emery. (In rufa group.) N. S., Ind., Minn., S. Dak., Colo., Alta., B. C. The female is very probably a temporary parasite on some form of *fusca*.

Formica dakotensis Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 644, 652. ☿.

Biology: W. M. Wheeler, 1926. Ants, pp. 113, 205, 445.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 391, 394, 462–463, ☿ ♀.

dakotensis var. **montigena** W. M. Wheeler. (In rufa group.) Iowa, Minn., N. Dak., and Rocky Mt. States. Temporary hosts, *F.* (*F.*) *fusca* var. *subsericea* Say and *F.* (*Neoformica*) *pallide-fulva schaufussi* var. *incerta* Emery.

Formica montigena W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 374. ☿ ♀ ♂.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 391, 394, 463–464, ☿ ♀ ♂.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 299, ☿.

dakotensis var. **saturata** W. M. Wheeler. (In rufa group.) Mont. (Helena).

Formica dakotensis var. ***saturata*** W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 542. ☿.

dakotensis var. **specularis** Emery. (In rufa group.) Wis. Temporary host, *F.* (*F.*) *fusca* var. *subsericea* Say.

Formica fusca subpolita var. ?***specularis*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 663. ♀.

Formica dacotensis var. ***Wasmanni*** Forel, 1904. Soc. Ent. Belg. Ann. 48: 153. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 364–365.—W. M. Wheeler, 1926. Ants, pp. 444–445.—Abbott, 1926. Ent. News 37: 210–211.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 391, 393, 464–465, ☿ ♀ ♂.

Physiology: Abbott, 1937. Ent. Soc. Amer. Ann. 20: 117–122.

difficilis Emery. (In microgyna group.) Mass. to Ga., west to Iowa. Temporary host, *F.* (*Neoformica*) *pallide-fulva schaufussi* var. *incerta* Emery.

Formica rufa difficilis Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 645, 651. ☿ ♀ ♂.

Formica difficilis var. ***consocians*** W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 371. ☿ ♀ ♂.

Formica habrogyna Cole, 1939. Amer. Midland Nat. 22: 413. ☿ ♀.

Biology: W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 347–373.—W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 50–64.—W. M. Wheeler, 1926. Ants, pp. 113–114, 205–206, 441–444.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 395, 477–480, ☿ ♀ ♂.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 300, ☿.

dirksi Wing. (In microgyna group.) Maine (Daigle in Aroostok County). Temporary host, *F.* (*F.*) *fusca* var. *subaenescens* Emery.

Formica dirksi Wing, 1949. Canad. Ent. 81: 13. ♀.

emeryi W. M. Wheeler. (In sanguinea group.) Colo., ?Minn. Slave, *F.* (*Proformica*) *neogagates neogagates* Emery.

Formica emeryi W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 389, 419. ☿ ♀.

exsectoides exsectoides Forel. (In exsecta group.). N. S. to Ga., west to Ont., Wis., and Iowa. Builds conspicuous mounds. Damages bark and

cambium of small tress and shrubs. Temporary parasite of *F.* (*F.*) *fusca* var. *subsericea* Say.

Formica exsectoides Forel, 1886. Soc. Ent. Belg. Ann. (C. R.) 30: 38. ☿ ♀.
Biology: McCook, 1877. Amer. Ent. Soc. Trans. 6: 253–295.—Andrews, 1926. Psyche 33: 127–150.—Andrews, 1929. Ent. Soc. Amer. Ann. 22: 369–391.—Andrews, 1929. Quart. Rev. Biol. 4: 248–257.
Taxonomy: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 643, 653, ☿ ♂.—W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 396, 481–483, ☿ ♀ ♂.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 300, ☿.
Economics: Peirson, 1922. Jour. Forestry 20: 325–336.—Manter, 1925. Jour. Econ. Ent. 18: 348–351.—Haviland, 1947. Jour. Econ. Ent. 40: 413–418.—Schread, 1949. Jour. Econ. Ent. 42: 501.

exsectoides opaciventris Emery. (In exsecta group.) Mont., Wyo., Colo.
Formica exsectoides var. ***opaciventris*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 643, 653. ☿.
Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 484–485, ☿ ♂.

exsectoides var. **davisi** W. M. Wheeler. (In exsecta group.) Mass., N. J., Md., Ill.
Formica exsectoides exsectoides var. ***davisi*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 396, 484. ☿ ♀.

exsectoides var. **hesperia** W. M. Wheeler. (In exsecta group.) Colo. (Chéyenne Canyon near Colo. Springs).
Formica exsectoides exsectoides var. ***hesperia*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 396, 484. ☿.

ferocula W. M. Wheeler. (In rufa group.) Ill. (Rockford). Constructs crater nests about the roots of weeds in dry, open fields.
Formica ferocula W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 392, 461. ☿.

foreliana W. M. Wheeler. (In rufa group.) Ariz., Utah.
Formica foreliana W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 391, 451. ☿.
Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 541.—Cole, 1942. Amer. Midland Nat. 28: 380.

fossaceps Buren. (In rufa group.) Iowa (Winterset). Temporary host, probably *F. fusca* var. *subsericea* Say.
Formica fossaceps Buren, 1942. Iowa State Col. Jour. Sci. 16: 402. ☿ ♀ ♂.
Biology: Buren, 1944. Iowa State Col. Jour. Sci. 18: 302.
Taxonomy: Buren, 1933. Iowa State Col. Jour. Sci. 18: 300, ☿.

fusca densiventris Viereck. (In fusca group.) N. Mex. (Beulah).
Formica fusca var. ***densiventris*** Viereck, 1903. Amer. Ent. Soc. Trans. 29: 74. ☿.
Taxonomy: Brown, 1947. Ent. News 58: 6–8, ☿.

fusca fusca Linnaeus. (In fusca group.) Holarctic. Que., Newfoundland, N. C., west to Tenn. to Alaska, Calif., and Ariz. Apparently absent from most of the Southern States and from Kansas, Missouri, and Oklahoma. Enslaved by *F.* (*F.*) *sanguinea* subspp. *aserva* Forel, *subintegra* Emery, and *subnuda* Emery.
Formica fusca Linnaeus, 1758. Syst. Nat., ed. 10, v. 1, p. 580.
Formica fusca var. ***glacialis*** W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 624. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1915. Psyche 22: 206.—W. M. Wheeler, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 19.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 83.
Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 397, 494–497, ☿ ♀ ♂.—Cole, 1940. Amer. Midland Nat. 24: 73, 77, ☿.

fusca pruinosa W. M. Wheeler. (In fusca group.) B. C., Wash., Alta., Mont.
Formica fusca pruinosa W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 548, ☿ ♀ ♂.

fusca pruinosa var. **lutescens** W. M. Wheeler. (In fusca group.) Wash. (Wawawai).
Formica fusca pruinosa var. ***lutescens*** W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 549. ☿.

fusca var. **algida** W. M. Wheeler. (In fusca group.) Labrador to Mass., west to Minn. Occurs at low elevations. Common in peat bogs but not limited to them. Confused by W. M. Wheeler and possibly others with *fusca* var. *subaenescens* Emery.

Formica fusca var. ***algida*** W. M. Wheeler, 1915. Psyche 22: 205. ☿ ♀.

fusca var. **argentea** W. M. Wheeler. (In fusca group.) Northeastern, Midwestern, and Western States; B. C. Widely distributed in the Transition Zone especially the colder regions; common in the mountains of western United States between 7,000–11,000 ft., more scattered in the Eastern States. Enslaved by *Polyergus rufescens breviceps* Emery and *F.* (*F.*) *sanguinea* subspp. *subnuda* Emery and *puberula* Emery.

Formica fusca var. ***argentata*** W. M. Wheeler, 1902. Amer. Nat. 36: 952. ☿. Preocc.

Formica fusca var. ***argentea*** W. M. Wheeler, 1912. Psyche 19: 90. N. name.

Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 625.—W. M. Wheeler, 1926. Ants, pp. 204, 205, 460, 475, 477.

Taxonomy: W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 344, ☿.—W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 398, 501–503, ☿ ♀ ♂.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 300, ☿.

fusca var. **blanda** W. M. Wheeler. (In fusca group.) Calif., Wash. May be a very pale form of var. *marcida* Whlr.

Formica fusca fusca var. ***blanda*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 398, 510. ☿.

Taxonomy: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 548, ☿.

fusca var. **gelida** W. M. Wheeler. (In fusca group.) Alaska, B. C., Sask., and Western States. A common alpine form which nests in woody or shady canyons just below the timber line. Often confused with the variety *neorufibarbis*. Enslaved by *F.* (*F.*) *sanguinea subnuda* Emery var.

Formica fusca fusca var. ***gelida*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 399, 505. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1915. Psyche 22: 206.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 546.

Taxonomy: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 546.

fusca var. **marcida** W. M. Wheeler. (In fusca group.) Alaska, B. C., Wash., Calif., Alta., Idaho, Man. A small, depauperate, alpine form.

Formica fusca fusca var. ***marcida*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 398, 503. ☿ ♀.

Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 546.

Taxonomy: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 546, ☿.—W. M. Wheeler, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 19, ☿ ♀.

fusca var. **neoclara** Emery. (In fusca group.) ?Iowa, N. Dak., Colo., N. Mex., Utah, Wash., Oreg. In Colorado occurring at altitudes below 7,000 ft., usually in the sandy soil of river valleys. Enslaved by *F.* (*F.*) *sanguinea puberula* Emery.

Formica fusca var. ***neoclara*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 646, 661. ☿.

Biology: W. M. Wheeler, 1926. Ants, pp. 201, 460–461, 463.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 398, 509–510, ☿ ♀ ♂.—Cole, 1942. Amer. Midland Nat. 28: 377, 383, ☿.

fusca var. **neorufibarbis** Emery. (In fusca group.) ?Alaska, B. C., Wash., Oreg., Calif., Alta., Idaho, Mont., Wyo., Utah, N. Dak., S. Dak. A member of the Hudsonian and Canadian Zones. Often confused with var. *gelida* W. M. Wheeler but occurs at lower elevations. Enslaved by *Polyergus rufescens breviceps* Emery and *Formica sanguinea* subspp. *rubicunda* Emery and *subnuda* Emery.

Formica fusca var. ***neorufibarbis*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 646, 660. ☿.

Biology: W. M. Wheeler, 1915. Psyche 22: 206.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 546–547.

Taxonomy: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 547, ☿ ♀ ♂.

fusca var. **subaenescens** Emery. Labrador, Canada, and most of the U. S. except the extreme South. States. Apparently a boreal form which is rare and at lower altitudes and latitudes in the Transition Zone. Enslaved by *Polyergus rufescens* subspp. *breviceps* Emery and *bicolor* Wasm. and *F.* (*F.*) *sanguinea* subspp. *subintegra* Emery, *rubicunda* Emery, *puberula* Emery, and *subnuda* Emery. (In fusca group.)

Formica fusca var. ***subaenescens*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 646, 659–660. ☿ ♀.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 401.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 599.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 300–301.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 399, 504–505, ☿ ♀ ♂.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 596, 599. ☿.

fusca var. **subsericea** Say. (In fusca group.) Canada and all the U. S. except perhaps Fla. and Tex. Enslaved by *Polyergus rufescens* subspp. *bicolor* Wasm., *breviceps* Emery, *breviceps* var. *fusciventris* Whlr. and *F.* (*F.*) *sanguinea* subspp. *aserva* Forel, *rubicunda* Emery and var. *sublucida* Whlr., *subnuda* Emery, *subintegra* Emery and var. *gilvescens* Whlr., *pergandei* Emery, *puberula* Emery.

Formica subsericea Say, 1836. Boston Jour. Nat. Hist. 1: 289. ☿ ♂.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 401.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 625.—Dennis, 1938. Ent. Soc. Amer. Ann. 31: 299, 306.—L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 102.

Taxonomy: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 646, 659, ☿ ♀ ♂.—W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 398, 499–501, ☿ ♀ ♂.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 300, ☿.

Economics: Schread and Chapman, 1948. Conn. Agr. Expt. Sta. Bul. 515: 18.

hewitti W. M. Wheeler. (In fusca group.) Alta., B. C., Mont. Commonly nests beneath stones.

Formica hewitti W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 552. ☿ ♀ ♂.

impexa W. M. Wheeler. (In microgyna group.) Mass., Mich. Temporary host, probably *F.* (*F.*) *fusca* var. *subsericea* Say.

Formica impexa W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 273. ☿.

Biology: W. M. Wheeler, 1906. Psyche 13: 40.—W. M. Wheeler, 1926. Ants, pp. 113, 444.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 395–396, 472–473, ☿ ♀.

indianensis Cole. (In microgyna group.) Ind., Iowa. Temporary host probably *F.* (*F.*) *fusca* var. *subsericea* Say.

Formica indianensis Cole, 1940. Amer. Midland Nat. 23: 224. ☿ ♂.

Biology: Buren, 1944. Iowa State Col. Jour. Sci. 18:306.

Taxonomy: Buren, 1944. Iowa State Col. Jour. Sci. 18: 300, 306, ☿.

knighti Buren. (In microgyna group.) Iowa (Bonaparte).

Formica (Formica) knighti Buren, 1944. Iowa State Col. Jour. Sci. 18: 300, 303. ☿.

lecontei Kennedy and Dennis. (In fusca group.) N. C., Ohio, Tenn., at elevations of 1,000-5,250 ft. Very closely related to, if not identical with, *fusca* var. *subaenescens* Emery.

Formica lecontei Kennedy and Dennis, 1937. Ent. Soc. Amer. Ann. 30: 542. ☿ ♀ ♂.

Biology: Cole, 1940. Amer. Midland Nat. 24: 78–79.

Taxonomy: Cole, 1940. Amer. Midland Nat. 24: 73, 78, 79, ☿ ♀ ♂.

manni W. M. Wheeler. (In sanguinea group.) Wash., Calif., Idaho, Nev., Utah. Commonly occurs in dry, hot, often sandy desert country.

Formica manni W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 389, 420. ☿ ♀.

Biology: Cole, 1942. Amer. Midland Nat. 28: 379.

Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 376, 378, ☿.

microgyna californica W. M. Wheeler. (In microgyna group.) Calif. (Lake Tahoe). Temporary host unknown.

Formica microgyna californica W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 543. ☿.

microgyna californica var. **hybrida** W. M. Wheeler. (In microgyna group.) Calif. (Lake Tahoe). Temporary host unknown.

Formica microgyna californica var. ***hybrida*** W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 543. ☿.

microgyna microgyna W. M. Wheeler. (In microgyna group.) Colo. Temporary host *F.* (*F.*) *fusca* var. *argentea* Whlr. and *F.* (*Proformica*) *neogagates neogagates* Emery.

Formica microgyna W. M. Wheeler, 1903. Amer. Mus. Nat. Hist. Bul. 19: 645. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 542.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 395–396, 465–467, ☿ ♀ ♂.

microgyna rasilis W. M. Wheeler. (In microgyna group.) Ohio, Colo., N. Mex., Utah, Wash. Temporary hosts, *F.* (*F.*) *fusca* vars. *argentea* Whlr. and *subsericea* Say. Enslaved by *F.* (*F.*) *sanguinea puberuls* Emery.

Formica microgyna var. ***rasilis*** W. M. Wheeler, 1903. Amer. Mus. Nat. Hist. Bul. 19: 648. ☿ ♀ ♂.

Biology: L. G., Jr., and R. G. Wesson, 1940. Amer. Midland Nat. 24: 101.—Cole, 1942. Amer. Midland Nat. 28: 381.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 395–396, 468–469, ☿ ♀ ♂.—Cole, 1942. Amer. Midland Nat. 28: 376, 381, ☿.

microgyna rasilis var. **pinetorum** W. M. Wheeler. (In microgyna group.) Calif. (Lake Tahoe). Temporary host unknown.

Formica microgyna rasilis var. ***pinetorum*** W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 542. ☿.

Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 85.

microgyna rasilis var. **pullula** W. M. Wheeler. (In microgyna group.) Mont. (Flathead Lake). Temporary host unknown.

Formica microgyna rasilis var. ***pullula*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 562. ☿ ♀.

microgyna rasilis var. **spicata** W. M. Wheeler. (In microgyna group.) Colo. (Florissant). Temporary host unknown.

Formica microgyna rasilis var. ***spicata*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 395, 469. ☿ ♀ ♂.

microgyna scitula W. M. Wheeler. (In microgyna group.) Ga. (Clayton). Temporary host unknown.

Formica microgyna scitula W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 395, 470. ♀.

microgyna spatulata Buren. (In microgyna group.) Iowa, Minn. Temporary host *F.* (*F.*) *fusca* var. *subsericea* Say.

Formica* (*Formica*) *microgyna spatulata Buren, 1944. Iowa State Col. Jour. Sci. 18: 300, 305. ☿ ♀ ♂.

microgyna var. **recidiva** W. M. Wheeler. (In microgyna group.) Colo., N. Mex. Temporary host unknown.

Formica microgyna microgyna var. ***recidiva*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 395, 467. ☿ ♂.

morsei W. M. Wheeler. (In microgyna group.) Mass. (So. Natick). Buren has suggested that *morsei* may be only badly faded or callow specimens of *difficilis*. Temporary host unknown.

Formica morsei W. M. Wheeler, 1906. Psyche 13: 39. ☿.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 394, 480–481, ☿.

nepticula W. M. Wheeler. (In microgyna group.) Mass., Conn., Ill., Iowa. Nests in open woods under stones, the edges of the stones banked with vegetable detritus. Temporary host probably *F.* (*Proformica*) *neogagates neogagates* Emery.

Formica nepticula W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 270. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 64.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 597.—W. M. Wheeler, 1926. Ants, pp. 113, 205, 444.
Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 394, 396, 475–477, ☿ ♀ ♂.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 595, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 300, ☿.

nevadensis W. M. Wheeler. (In microgyna group.) Nev. (Ormsby County). Temporary host unknown.
Formica microgyna var. ***nevadensis*** W. M. Wheeler, 1904. Amer. Mus. Nat. Hist. Bul. 20: 373. ☿.
Biology: W. M. Wheeler, 1926. Ants, pp. 113, 444.
Taxonomy: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 272, ♀.—W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 396, 470–472, ☿.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 544, ☿.

obtusopilosa Emery. (In sanguinea group.) Minn., Nebr., N. Dak., S. Dak., Colo., N. Mex., Alta., Mont., Utah. Doubtfully referred to the sanguinea group.
Formica sanguinea obtusopilosa Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 643, 648. ☿.
Formica munda W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 267. ☿ ♀.
Biology: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 417–418.—Cole, 1942. Amer. Midland Nat. 28: 378.
Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 389, 414–418, ☿ ♀.—Cole, 1942. Amer. Midland Nat. 28: 376–378, ☿.

obtusopilosa var. **alticola** W. M. Wheeler. (In sanguinea group.) Colo. (Jefferson County). An alpine form, doubtfully placed in the sanguinea group. No slaves have been recorded for this form.
Formica munda var. ***alticola*** W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 534. ☿.

oreas W. M. Wheeler. (In rufa group.) Colo., N. Mex., Utah.
Formica oreas W. M. Wheeler, 1903. Amer. Mus. Nat. Hist. Bul. 19: 643. ☿ ♀ ♂.
Biology: W. M. Wheeler, 1926. Ants, pp. 114, 205, 351, 444.—Cole, 1942. Amer. Midland Nat. 28: 379.
Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 391, 393, 458–460, ☿ ♀ ♂.—Cole, 1942. Amer. Midland Nat. 28: 376, 379, ☿.

oreas var. **comptula** W. M. Wheeler. (In rufa group.) Wash., Idaho, Sask., Mont., Utah, Wyo.
Formica oreas var. ***comptula*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 391, 393, 460. ☿ ♀.
Biology: Cole, 1934. Psyche 41: 227.—Cole, 1942. Amer. Midland Nat. 28: 380.
Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 376, 380, ☿.

oregonensis Cole. (In sanguinea group.) Oreg. (Pendleton). Collected in an alpine meadow. Doubtfully referred to the sanguinea group. No slaves have been found.
Formica oregonensis Cole, 1938. Amer. Midland Nat. 20: 368. ☿.

parcipappa Cole. (In sanguinea group.) Idaho (near Nampa). Slave unknown.
Formica parcipappa Cole, 1946. Ent. Soc. Amer. Ann. 39: 616. ☿.

pergandei Emery. (In sanguinea group.) Mass., D. C. Apparently enslaves *F.* (*Neoformica*) *pallide-fulva* Latr.
Formica pergandei Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 643, 646. ☿.
Biology: W. M. Wheeler, 1901. Amer. Nat. 35: 722.—R. E. Gregg, 1946. Amer. Midland Nat. 35: 752.
Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 389, 418–419, ☿.

perpilosa W. M. Wheeler. (In sanguinea group). Okla. and Tex., west to Calif.; Mexico. Doubtfully referred to the sanguinea group. No indication that

this form is a slave maker or a temporary parasite. Peculiar to the irrigated lands and river bottoms in the deserts of the Southwest.

Formica fusca subpolita var. ***perpilosa*** W. M. Wheeler, 1902. Soc. Cient. "Antonio Alzate" Mem. y Rev. 17: 141. ☿ ♀.

Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 534.—Cole, 1934. Ent. Soc. Amer. Ann. 27: 401.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 85.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 389, 421–423, ☿ ♀ ♂.—Cole, 1942. Amer. Midland Nat. 28: 376, 378, ☿.

pilicornis Emery. (In fusca group.) Calif. Peculiar to low elevations on the slopes of the Coast Range in California. Infests houses.

Formica pilicornis Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 646, 664. ☿ ♀ ♂.

Biology: Cole, 1934. Ent. Soc. Amer. Ann. 27: 401.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 85.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 399, 527–529, ☿ ♀ ♂.—Eckert and Mallis, 1937. Univ. Calif. Agr. Expt. Sta. Cir. 342: 7, 29, ☿.

Economics: Eckert and Mallis, 1937. Univ. Calif. Agr. Expt. Sta. Cir. 342: 29.

postoculata Kennedy and Dennis. (In microgyna group.) Ind. (Aurora). Temporary host unknown.

Formica postoculata Kennedy and Dennis, 1937. Ent. Soc. Amer. Ann. 30: 540. ☿.

prociliata Kennedy and Dennis. (In rufa group.) Ohio, Wis., Iowa.

Formica prociliata Kennedy and Dennis, 1937. Ent. Soc. Amer. Ann. 30: 531. ☿ ♀ ♂.

Biology: Buren, 1944. Iowa State Col. Jour. Sci. 18: 303.

Taxonomy: Buren, 1944. Iowa State Col. Jour. Sci. 18: 300, ☿.

querquetulana Kennedy and Dennis. (In microgyna group.) Ohio (Holland). Temporary host unknown.

Formica querquetulana Kennedy and Dennis, 1937. Ent. Soc. Amer. Ann. 30: 536. ☿ ♀.

reflexa Buren. (In microgyna group.) Iowa, Minn. Host: *F.* (*F.*) *fusca* var. *subsericea* Say.

Formica reflexa Buren, 1942. Iowa State Col. Jour. Sci. 16: 399. ☿ ♀ ♂.

Biology: Buren, 1944. Iowa State Col. Jour. Sci. 18: 303.

Taxonomy: Buren, 1944. Iowa State Col. Jour. Sci. 18: 299, ☿.

rufa clivia Creighton. (In rufa group.) Man., Wis., and Iowa to B. C. and Utah. *F.* (*F.*) *rufa rufa* Linnaeus occurs in Europe and Asia.

Formica rufa clivia Creighton, 1940. Amer. Mus. Novitates 1055: 8, 9. ☿ ♀ ♂.

Biology: Cole, 1942. Amer. Midland Nat. 28: 380.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 302.

Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 377, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 300, 302, ☿.

rufa coloradensis W. M. Wheeler. (In rufa group.) Idaho, Utah, Colo., N. Mex. Common to mountainous regions. Nests in areas of moderate to heavy cover. Makes extensive use of thatching.

Formica truncicola integroides var. ***coloradensis*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 393, 440. ☿ ♀.

Biology: Creighton, 1940. Amer. Mus. Novitates 1055: 6.—Cole, 1942. Amer. Midland Nat. 28: 381.

Taxonomy: Creighton, 1940. Amer. Mus. Novitates 1055: 7, ☿.—Cole, 1942. Amer. Midland Nat. 28: 377, ☿.

rufa gymnomma W. M. Wheeler. (In rufa group.) South. New England to S. Dak., with a southern extension in the Appalachian region. Nests in areas of moderate to sparse cover. Makes moderate use of thatching.

Formica dryas var. ***gymnomma*** W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 269. ☿.

Biology: Creighton, 1940. Amer. Mus. Novitates 1055: 6.—Buren, 1941. Iowa State Col. Jour. Sci. 15: 115.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 392, 448, ☿.—Creighton, 1940. Amer. Mus. Novitates 1055: 8, ☿.

rufa haemorrhoidalis Emery. (In rufa group.) N. Dak. to Colo., west to Wash. and Nev.

Formica rufa integra var. ***haemorrhoidalis*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 644, 652. ☿.

Biology: W. M. Wheeler, 1926. Ants, pp. 206, 444.—Creighton, 1940. Amer. Mus. Novitates 1055: 6.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 392, 394, 441–442, ☿ ♀ ♂.—Creighton, 1940. Amer. Mus. Novitates 1055: 7, ☿.—Cole, 1942. Amer. Midland Nat. 28: 376, ☿.

rufa integra Nylander. (In rufa group.) N. S. to Ga., west to Mich., Ill., Miss. Nests in areas of sparse to moderate cover. Colonies huge. Temporary host, *F.* (*F.*) *fusca* var. *subsericea* Say.

Formica integra Nylander, 1856. Ann. des Sci. Nat., Zool. 5: 62. ☿.

Formica integra var. ***similis*** Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 425. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 399.—Davis and Bequaert, 1922. Brooklyn Ent. Soc. Bul. 17: 18–19.—W. M. Wheeler, 1926. Ants, pp. 204–206, 222, 351, 444.—Creighton, 1940. Amer. Mus. Novitates 1055: 6.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 392, 394, 444–445, ☿ ♀ ♂.—Creighton, 1940. Amer. Mus. Novitates 1055: 7, ☿.

rufa integroides Emery. (In rufa group.) Wash., Oreg., Calif. Common to the Coastal Mountains and western slopes of the Sierras in Calif. Temporary host unknown.

Formica rufa obscuriventris var. ***integroides*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 644, 649. ☿.

Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 537:—Creighton, 1940. Amer. Mus. Novitates 1055: 6.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 393 394, 438–439, ☿ ♀.—Creighton, 1940. Amer. Mus. Novitates 1055: 7, ☿

rufa laeviceps Creighton. (In rufa group.) Utah (La Sal Mts.). Nests in area of sparse to moderate cover.

Formica rufa laeviceps Creighton, 1940. Amer. Mus. Novitates 1055: 7, 9, ☿ ♀.

Biology: Cole, 1942. Amer. Midland Nat. 28: 380.

Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 377, ☿.

rufa melanotica Emery. (In rufa group.) Canada, Wis., and Ind. to Wash. and Oreg., south to Colo. and Utah. Habitats diverse and nesting habits extremely varied.

Formica rufa obscuriventris var. ***melanotica*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 644, 650. ☿.

Biology: A. C. Burrill and M. R. Smith, 1919. Ohio Jour. Sci. 19: 286.—Creighton, 1940. Amer. Mus. Novitates 1055: 6.—Cole, 1942. Amer. Midland Nat. 28: 380.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 392, 394, 432–433, ☿ ♀ ♂.—Creighton, 1940. Amer. Mus. Novitates 1055: 7, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 300, ☿.

rufa mucescens W. M. Wheeler. (In rufa group.) Colo., Utah. In Colorado nests at altitudes of approximately 5,000-7,000 ft. in open places under stones banked with vegetable detritus.

Formica truncicola mucescens W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 392, 394, 442. ☿ ♀ ♂.

Biology: Creighton, 1940. Amer. Mus. Novitates 1055: 6.—Cole, 1942. Amer. Midland Nat. 28: 380.

Taxonomy: Creighton, 1940. Amer. Mus. Novitates 1055: 7, ☿.—Cole, 1942. Amer. Midland Nat. 28: 376, ☿.

rufa obscuripes Forel. (In rufa group.) Alaska to Oreg., east to Man. and N. Dak., with a southern extension in the Rocky Mt. region. Nesting site open areas devoid of cover.

Formica rufa obscuripes Forel, 1886. Soc. Ent. Belg. Ann. (C. R.) 30: 39. ☿.

Formica rufa obscuriventris var. ***rubiginosa*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 644, 650. "♀"=☿. Preocc.

Formica rufa aggerans W. M. Wheeler, 1912. Psyche 19: 90. N. name.
Biology: Cole, 1932. Psyche 39: 30–33.—Weber, 1935. Ecol. Monog. 5: 165–206.—Weber, 1941. Canad. Ent. 73: 140–141.—G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 263–266.
Taxonomy: Creighton, 1940. Amer. Mus. Novitates 1055: 1–7, ☿.
Economics: Treherne, 1915. Canad. Ent. 47: 104.—Essig, 1926. Ins. West. No. Amer., p. 867.—Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 30.

rufa obscuriventris Mayr. (In rufa group.) Northeastern Canada and U. S. west to Wis. Nests in areas of moderate to sparse cover. Temporary host *F.* (*F.*) *fusca* var. *subsericea* Say.
Formica truncicola var. ***obscuriventris*** Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 951. ☿.
Formica dryas W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 268. ☿ ♀.
Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 623.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 597.—Creighton, 1940. Amer. Mus. Novitates 1055: 6.
Taxonomy: Wheeler, 1917. (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 595, ☿.—Creighton, 1940. Amer. Mus. Novitates 1055: 8, ☿.

rufa planipilis Creighton. (In rufa group.) Nev. (Mt. Wheeler).
Formica rufa planipilis Creighton, 1940. Amer. Mus. Novitates 1055: 7, 9. ☿.

rufa propinqua W. M. Wheeler. (In rufa group.) Calif. (near Lake Tahoe). Nests in areas of moderate to heavy cover.
Formica truncicola integroides var. ***propinqua*** W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 538. ☿.
Biology: Creighton, 1940. Amer. Mus. Novitates 1055: 6. — Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 88.
Taxonomy: Creighton, 1940. Amer. Mus. Novitates 1055: 7, ☿.

rufa ravida W. M. Wheeler. (In rufa group.) Mont. (Elkhorn).
Formica truncicola integroides var. ***ravida*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 560. ☿ ♀.
Biology: Creighton, 1940. Amer. Mus. Novitates 1055: 6.
Taxonomy: Creighton, 1940. Amer. Mus. Novitates 1055: 7, ☿.

rufa subcaviceps W. M. Wheeler. (In rufa group.) B. C., Wash., Oreg. High plateaus east of the Cascades in Oreg. and Wash. Nesting site in open areas devoid of cover.
Formica truncicola integra var. ***subcaviceps*** W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 540. ☿ ♂.
Biology: Creighton, 1940. Amer. Mus. Novitates 1055: 6.
Taxonomy: Creighton, 1940. Amer. Mus. Novitates 1055: 7, ☿.

rufa subfasciata W. M. Wheeler. (In rufa group.) Calif. (Mill Creek Canyon, Wilson Peak, 7,500 ft., San Bernardino Mts.).
Formica truncicola integroides var. ***subfasciata*** W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 539. ☿.
Taxonomy: Creighton, 1940. Amer. Mus. Novitates 1055: 7, ☿.

rufa subnitens Creighton. (In rufa group.) Oreg. (Bly). Probably distributed along foot of eastern slope of Cascade Mountains. Nests in open areas devoid of cover. Nests in the soil with no covering mound of detritus.
Formica rufa subnitens Creighton, 1940. Amer. Mus. Novitates 1055: 7, 10. ☿.

rufa tahoensis W. M. Wheeler. (In rufa group.) Calif., Nev. Nests in areas of moderate to sparse cover.
Formica truncicola integroides var. ***tahoënsis*** W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 538. ☿ ♀.
Biology: Creighton, 1940. Amer. Mus. Novitates 1055: 6.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 88–89.
Taxonomy: Creighton, 1940. Amer. Mus. Novitates 1055: 7, ☿.

rufibarbis var. **gnava** Buckley. (In fusca group.) Ariz., Calif., Colo., N. Mex., Tex., Utah; Mexico. *F. rufibarbis* Fabricius occurs in Europe and Asia.
Formica gnava Buckley, 1866. Ent. Soc. Phila. Proc. 6: 156. ☿ ☿ ♂.

Biology: W. M. Wheeler, 1902. Tex. Acad. Sci. Trans. 4: 20.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 550.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 86.
Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 390, 518–521, ☿ ♀ ♂.—Cole, 1942. Amer. Midland Nat. 28: 377, 383, ☿.

rufibarbis var. **occidua** W. M. Wheeler. (In fusca group.) Calif., Wash. Nests under stones at low altitudes in the open live-oak groves on the warm slopes of the Pacific Coast Range.

Formica rufibarbis var. ***occidentalis*** W. M. Wheeler, 1910. Ants, p. 570. *Nom. nud.* Preocc.

Formica rufibarbis var. ***occidua*** W. M. Wheeler, 1912. Psyche 19: 90. N. name. *Nom. nud.*

Formica rufibarbis var. ***occidua*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 398, 517. ☿ ♀.

Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 550.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 86.
Taxonomy: Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 7. 30, ☿.
Economics: Eckert and Mallis, 1937. Calif. Agr. Expt. Sta. Cir. 342: 30.

sanguinea aserva Forel. (In sanguinea group.) N. B. to Mass., west to N. Dak. A boreal species. *F.* (*F.*) *sanguinea sanguinea* Latreille occurs in the Palearctic Region.

Formica sanguinea aserva Forel, 1901. Soc. Ent. Belg. Ann. 45: 395. ☿ ♀.

Biology: W. M. Wheeler, 1906. Amer. Mus. Nat. Hist. Bul. 22: 85.—W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 623, 631–633.—W. M. Wheeler, 1926. Ants, pp. 458–460, 468.
Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 389, 404–406, ☿ ♀ ♂.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 595, ☿.

sanguinea puberula Emery. (In sanguinea group.) B. C. and western half of U. S. Also reported from Ind., Ill., Mo. In the Western States this form occurs at lower altitudes and warmer situations than *sanguinea subintegra*. Slaves: *F. subpolita* Mayr; *F. fusca* vars. *argentea* Whlr., *subaenescens* Emery, *subsericea* Say, and *neoclara* Emery; *F. cinerea* vars. *neocinerea* Whlr. and *altipetens* Whlr.; *F.* (*Neoformica*) *pallide-fulva nitidiventris* Emery; *F.* (*Proformica*) *neogagates lasioides* var. *vetula* Whlr.; *F.* (*Formica*) *microgyna rasilis* Whlr.

Formica sanguinea puberula Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 643, 648. ☿.

Biology: W. M. Wheeler, 1926. Ants, pp. 458–460.—Cole, 1942. Amer. Midland Nat. 28: 378.
Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 390, 413–414, ☿ ♀ ♂.—Cole, 1942. Amer. Midland Nat. 28: 376, ☿.

sanguinea rubicunda Emery. (In sanguinea group.) Labrador and Ont. to N. C., west to Mont. and Colo. A boreal and alpine form. Nests in the soil freely or under cover, also in logs. Female establishes colony with *F. fusca* var. *subsericea* Say workers in a manner similar to *aserva* but as the workers make slave raids also, mixed colonies are the result. Slaves: *F. fusca* vars. *subsericea* Say, *subaenescens* Emery, *neorufibarbis* Emery; *F.* (*Proformica*) *neogagates neogagates* Emery; *F. cinerea* var. *neocinerea* Whlr.; *F.* (*Neoformica*) *pallide-fulva schaufussi* var. *incerta* Emery and *pallide-fulva nitidiventris* var. *fuscata* Emery.

Formica sanguinea rubicunda Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 643, 647. ☿ ♀.

Biology: W. M. Wheeler, 1926. Ants, pp. 458–470.—M. R. Smith, 1928. N. Y. Ent. Soc. Jour. 26: 327–329.—Talbot, 1934. Ecology 15: 421, 430–434.
Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 390, 406–408, ☿ ♀ ♂.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 595, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 299, ☿.

sanguinea rubicunda var. **sublucida** W. M. Wheeler. (In sanguinea group.) Mass. (near Boston). Slave: *F.* (*F.*) *fusca* var. *subsericea* Say.

Formica sanguinea rubicunda var. ***sublucida*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 390, 408. ☿ ♀.

sanguinea subintegra Emery. (In sanguinea group.) Newfoundland, N. S. to S. C., west at least to Nebr., Kans. Common in Eastern States and Canada at low elevations. Slaves: *F. (F.) fusca* L. and vars. *subsericea* Say, *subaenescens* Emery; *F. (F.) cinerea* var. *neocinerea* Whlr.; *F. (Proformica) neogagates neogagates* Emery; *F. (Proformica) neogagates lasioides* var. *vetula* Whlr.; *F. (F.) subpolita* Mayr; *F. (Neoformica) pallide-fulva schaufussi* and var. *incerta* Emery; *F. (Neoformica) pallide-fulva nitidiventris* Emery and var. *fuscata* Emery.

Formica sanguinea rubicunda var. ***subintegra*** Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 643, 648. ☿.

Biology: W. M. Wheeler, 1908. Amer. Mus. Nat. Hist. Bul. 24: 624, 627–631.—M. R. Smith, 1928. N. Y. Ent. Soc. Jour. 36: 323–327.—Talbot and Kennedy, 1940. Ent. Soc. Amer. Ann. 33: 560–577.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 390, 410–412, ☿ ♀ ♂.—W. M. Wheeler, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 595, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 299, ☿.

sanguinea subintegra var. **gilvescens** W. M. Wheeler. (In sanguinea group.) N. Y., Ohio, Wis. Slave: *F. (F.) fusca* var. *subsericea* Say.

Formica sanguinea subintegra var. ***gilvescens*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 390, 412. ☿.

sanguinea subnuda Emery. (In sanguinea group.) Alaska, Labrador, Newfoundland, Canada, and all of U. S., exclusive of states from Va. to Kans. southward. A boreal and alpine form which is largely confined to the Northern and Western States. Widely distributed in the Canadian and Transition Zones. Slaves: *F. (F.) fusca* and vars. *subsericea* Say, *argentea* Whlr., *gelida* Whlr., *subaenescens* Emery, *neorufibarbis* Emery; *F. subpolita* Mayr.

Formica sanguinea rubicunda var. ***subnuda*** Emery, 1895. Zool. Jahrb., Abt. f. System. 8: 335. ☿.

Biology: W. M. Wheeler, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 19.—W. M. Wheeler, 1926. Ants, pp. 458–460.—Cole, 1942. Amer. Midland Nat. 28: 378.—R. E. Gregg, 1947. Colo. Univ. Studies 2: 393.

Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53:389, 409–410, ☿ ♀ ♂.—Cole, 1942. Amer. Midland Nat. 28: 376, 378, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 299, 308, ☿.

sibylla W. M. Wheeler. (In fusca group.) Oreg., Calif., Nev.

Formica sibylla W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 399, 530. ☿ ♀.

Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 551.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 87.

Taxonomy: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 551, ☿.

subpolita Mayr. (In fusca group.) Pacific Coast, Rocky Mts. and Southwest. States. Enslaved by *Polyergus rufescens laeviceps* Whlr.; *F. (F.) sanguinea* subspp. *puberula* Emery, *subintegra* Emery, and *subnuda* Emery.

Formica fusca var. ***subpolita*** Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 426. ☿ ♀.

?*Formica rufiventris* Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 665. ♂. Preocc.

Formica flammiventris W. M. Wheeler, 1912. Psyche 19: 90. N. name.

Biology: W. M. Wheeler, 1926. Ants, pp. 201, 460.—Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 87.

Taxonomy: Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 646, 661, ☿ ♀.—W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 399, 532–535, ☿ ♀ ♂.—Cole, 1942. Amer. Midland Nat. 28: 383–384, ☿.

subpolita var. **camponoticeps** W. M. Wheeler. (In fusca group.) B. C., Wash., Calif., Idaho, Utah.

Formica subpolita var. ***camponoticeps*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 399, 535. ☿.

Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 553.—Cole, 1942. Amer. Midland Nat. 28: 384.

Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 377, ☿.

subpolita var. **ficticia** W. M. Wheeler. (In fusca group.) Mont., Colo.

Formica subpolita var. ***ficticia*** W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 561. ☿ ♀ ♂.

Taxonomy: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 554, ☿.

ulkei Emery. (In exsecta group.) N. S., Ont. and Ohio to Man., N. Dak., S. Dak. Peculiar to the Canadian but rare in the Transition Zone. Nests are flattened mounds a foot or more in diameter and made of earth and vegetable detritus.
Formica ulkei Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 643, 653. ☿.
Biology: Holmquist, 1928. Ecology 9: 70–87.—Holmquist, 1928. Physiol. Zool. 1: 325–357.—Park, 1929. Psyche 36: 195–215.—Dreyer and Park, 1932. Psyche 39: 127–133.—Park, 1936. Psyche 42: 216–231.
Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 396, 485–487, ☿ ♀ ♂.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 300, ☿.—R. E. Gregg, 1944. Ent. Soc. Amer. Ann. 37: 472, ☿.

ulkei var. **hebescens** W. M. Wheeler. (In exsecta group.) N. S., Ind.
Formica ulkei var. *hebescens* W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 396, 487. ☿.

wheeleri Creighton. (In sanguinea group.) Utah (La Sal Mts.). Slave: *F.* (*Proformica*) *neogagates lasioides* var. *vetula* Whlr.
Formica wheeleri Creighton, 1935. Amer. Mus. Novitates 773: 1–5. ☿ ♀.
Biology: Cole, 1942. Amer. Midland Nat. 28: 378.
Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 376, 378, ☿.

whymperi Forel. (In microgyna group.) B. C. Colonies small. Temporary host unknown.
Formica rufa obscuripes var. *whymperi* Forel, 1904. Soc. Ent. Belg. Ann. 48: 152. ☿.
Biology: W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 544.
Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 392, 434, ☿.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 544, ☿.

whymperi var. **adamsi** W. M. Wheeler. (In microgyna group.) Mich., Minn.
Formica adamsi W. M. Wheeler, 1909. N. Y. Ent. Soc. Jour. 17: 84. ☿.
Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 395, 473–474, ☿.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 544, ☿.

whymperi var. **alpina** W. M. Wheeler. (In microgyna group.) Colo., ?Idaho, ?N. S. Temporary host unknown.
Formica adamsi var. *alpina* W. M. Wheeler, 1909. N. Y. Ent. Soc. Jour. 17: 85. ☿.
Taxonomy: W. M. Wheeler, 1913. Harvard Univ., Mus. Compar. Zool. Bul. 53: 395, 475, ☿.—W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 544.

Unrecognized Forms of Formica Linnaeus

connecticutensis Buckley. Conn., N. Y., D. C.
Formica Connecticutensis Buckley, 1866. Ent. Soc. Phila. Proc. 6: 154. ☿ ♀.

nortonii Buckley. Conn.
Formica Nortonii Buckley, 1866. Ent. Soc. Phila. Proc. 6: 153. ☿ ♀.

nova-anglae Buckley. Maine.
Formica Nova Anglae Buckley, 1866. Ent. Soc. Phila. Proc. 6: 153, ☿ ♀.

politurata Buckley. Mich.
Formica politurata Buckley, 1866. Ent. Soc. Phila. Proc. 6: 160. ☿.

virginiana Buckley. D. C.
Formica Virginiana Buckley, 1866. Ent. Soc. Phila. Proc. 6: 159. ☿.

Genus POLYERGUS Latreille

Polyergus Latreille, 1804 Nouv. Dict. Hist. Nat., v. 24, p. 179.
Type: *Formica rufescens* Latreille. Monob.
Revision: M. R. Smith, 1947. Amer. Midland Nat. 38: 150–161.

These obligatory or true slave-making ants occur throughout the United States, except possibly the extreme southern states.

lucidus longicornis M. R. Smith. S. C. (Florence). Slave: *Formica* (*Neoformica*) *pallide-fulva schaufussi* Mayr.

Polyergus lucidus longicornis M. R. Smith, 1947. Amer. Midland Nat. 38: 155. ☿.

lucidus lucidus Mayr. Mass. to S. C., west to Kans. and Iowa. Slaves: *Formica* (*Neoformica*) *pallide-fulva schaufussi* Mayr and var. *incerta* Emery and *F.* (*N.*) *pallide-fulva nitidiventris* Emery.

Polyergus lucidus Mayr, 1870. Zool.-Bot. Gesell. Wien, Verh. 20: 952. ☿.

Biology: McCook, 1880. Acad. Nat. Sci. Phila. Proc. 32: 376–384.—Burrill, 1908. N. Y. Ent. Soc. Jour. 16: 144–151.—W. M. Wheeler, 1926. Ants, pp. 482–486.—M. R. Smith, 1934. N. Y. Ent. Soc. Jour. 42: 360–361.

Taxonomy: Mayr, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 424, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 310, ☿.—M. R. Smith, 1947. Amer. Midland Nat. 38: 152–155, ☿.

lucidus montivagus W. M. Wheeler. Colo. Slave: *Formica* (*Neoformica*) *pallide-fulva schaufussi* var. near *incerta* Emery.

Polyergus lucidus montivagus W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 419. ☿ ♀ ♂.

Taxonomy: M. R. Smith, 1947. Amer. Midland Nat. 38: 152, 156, ☿.

rufescens bicolor Wasmann. Ont., Mich., and Ill., west to Mont. *P. rufescens rufescens* Latreille occurs in Europe and Asia. Slaves: *Formica* (*F.*) *fusca* vars. *subaenescens* Emery and *subsericea* Say.

Polyergus rufescens bicolor Wasmann, 1901. Allg. Ztschr. f. Ent. 6: 369. ☿ ♀ ♂.

Biology: W. M. Wheeler, 1926. Ants, pp. 477–482.—G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 269.

Taxonomy: Buren, 1944. Iowa State Col. Jour. Sci. 18: 310, ☿.—M. R. Smith, 1947. Amer. Midland Nat. 38: 152, 159, ☿.

rufescens breviceps Emery. B. C. to Calif., east to N. Dak. and Kans.; Ill., Ind. One of the most common and widely distributed forms of *Polyergus*. Slaves: *Formica* (*F.*) *cinerea* var. *neocinerea* Whlr.; *F.* (*F.*) *fusca* vars. *argentea* Whlr., *neorufibarbis* Emery, *subaenescens* Emery, and *subsericea* Say.

Polyergus rufescens breviceps Emery, 1893. Zool. Jahrb., Abt. f. System. 7: 666. ☿.

Biology: W. M. Wheeler, 1916. N. Y. Ent. Soc. Jour. 24: 107–118.—W. M. Wheeler, 1926. Ants, pp. 475–477.—M. R. Smith, 1928. N. Y. Ent. Soc. Jour. 36: 329–333.

Taxonomy: Cole, 1942. Amer. Midland Nat. 28: 385, ☿.—Buren, 1944. Iowa State Col. Jour. Sci. 18: 310, ☿.—M. R. Smith, 1947. Amer. Midland Nat. 38: 152, 157–158, ☿.

rufescens breviceps var. **fusciventris** W. M. Wheeler. Minn., Man., N. Dak., Colo. Slaves: *Formica* (*F.*) *fusca fusca* L. and *F.* (*F.*) *fusca* var. *subsericea* Say.

Polyergus rufescens breviceps var. ***fusciventris*** W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 555. ☿.

Biology: G. C. and E. W. Wheeler, 1944. N. Dak. Hist. Quart. 11: 269.—R. E. Gregg, 1946. Amer. Midland Nat. 35: 754.

Taxonomy: M. R. Smith, 1947. Amer. Midland Nat. 38: 152, 161, ☿.

rufescens breviceps var. **silvestrii** Santschi. Calif. (Yosemite). Slave not recorded.

Polyergus rufescens breviceps var. ***Silvestrii*** Santschi, 1909. Soc. Ent. Ital. Bol. 41: 7. ☿ ♂.

Taxonomy: M. R. Smith, 1947. Amer. Midland Nat. 38: 161, ☿.

rufescens breviceps var. **umbratus** W. M. Wheeler. Calif. (Brookdale). Slave, a small form of *Formica* (*F.*) *fusca* near var. *argentea* Whlr.

Polyergus rufescens breviceps var. ***umbratus*** W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 419. ☿.

Biology: Mallis, 1941. South. Calif. Acad. Sci. Bul. 40: 82.

Taxonomy: M. R. Smith, 1947. Amer. Midland Nat. 38: 152, 160, ☿.

rufescens laeviceps W. M. Wheeler. Calif. (Mt. Tamalpais). Slave: *Formica* (*F.*) *subpolita* Mayr.

Polyergus rufescens laeviceps W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 420. ☿.
Taxonomy: M. R. Smith, 1947. Amer. Midland Nat. 38: 152, 160, ☿.

Unrecognized Forms of Subfamily Formicinae

Formica arenicola Buckley, 1866. Ent. Soc. Phila. Proc. 6: 160. ☿.

Formica occidentalis Buckley, 1866. Ent. Soc. Phila. Proc. 6: 157. ☿ ♀.

Formica tenuissima Buckley, 1866. Ent. Soc. Phila. Proc. 6: 162. ☿.

Unrecognized Forms of Formicidae

Formica dislocata Say, 1836. Boston Jour. Nat. Hist. 1: 288. ♀ ♂.

Formica Lincecumii Buckley, 1866. Ent. Soc. Phila. 6: 163. ☿ ♀ ♂.

Polyergus Texana Buckley, 1866. Ent. Soc. Phila. Proc. 6: 170. ♀.

Formica triangularis Say, 1836. Boston Jour. Nat. Hist. 1: 288. ♀ ♂.

Superfamily VESPOIDEA

Taxonomy: Ashmead, 1902. Canad. Ent. 34: 163–166, 203–210, 219–221.—Dalla Torre, 1904. *In* Wytsman, Gen. Ins., Fasc. 19, pp. 1–108, 6 pls.

Family VESPIDAE[30]

Subfamily VESPINAE

Nests consist of several to many tiers of hexagonal paper cells, the whole generally enclosed in a paper envelope. Larvae are fed chiefly on food of animal origin. The nests are annual; queens hibernate. Species of the subfamily are indigenous to the Northern Hemisphere. A common parasite is *Sphecophaga burra* (Cresson).

Revision: Bequaert, 1932. Ent. Amer. (n. s.) 12: 71–138.—Duncan, 1939. Stanford Univ., Pubs., Univ. Ser. Biol. Sci. 8 (1): 1–272.

Genus VESPA Linnaeus

Vespa Linnaeus, 1758. Syst. Nat., ed. 10, v. 1, p. 343.
Type: ***Vespa crabro*** Linnaeus. Desig. by Lamarck, 1801.
Macrovespa Dalla Torre, 1904. *In* Wytsman, Gen. Ins., v. 19, p. 64.
Type: ***Vespa crabro*** Linnaeus. Desig. by Bequaert, 1930.

crabro germana Christ. N. Y., Pa., N. J., Conn., Del., Md., D. C., Va. Introduced from Palearctic Region, where it occurs south of 62° latitude.
Vespa crabro germana Christ, 1791. Naturgesch. Insekt. Bienen, Wespen u. Ameisengeschl., p. 215.

Genus VESPULA Thompson

Subgenus VESPULA Thompson

Vespula Thomson, 1869. Opusc. Ent., v. 1, p. 79.
Type: ***Vespa austriaca*** Panzer. Desig. by Ashmead, 1902.
Pseudovespa Schmiedeknecht, 1881. Ent. Nachr. 7: 314.
Type: ***Vespa austriaca*** Panzer. Monob.
Paravespula Bluethgen, 1938. Konowia 16: 271.
Type: ***Vespa vulgaris*** Linnaeus. Orig. desig.
Allovespula Bluethgen, 1943. Stettin. Ent. Ztg. 104: 149.
Type: ***Vespa rufa*** Linnaeus. Orig. desig.

Nests are usually underground or close to it in hollow logs or stumps. Combs, except for a small conical area around the main suspensorium, are usually essentially plane. Colonies usually last until late fall.

[30]By Richard M. Bohart, University of California, Davis, Calif.

austriaca (Panzer). Holarctic; in North America from Calif., Colo., Mich., N. J. north to Alaska.

Vespa austriaca Panzer, 1799. Faunae Ins. German. h. 63, pl. 2. ♂.

Vespa infernalis Saussure, 1853. Études sur la famille des Vespides, v. 2, p. 139. ♀.

Vespa tripunctata Packard, 1870. Chicago Acad. Sci. Trans. 2: 26. ♀.

maculifrons (Buysson). Eastern U. S. west to Tex., Kans., Nebr., N. Dak. Upper and Lower Austral and Transition Zones.

Vespa maculifrons Buysson, 1905. Soc. Ent. France Ann. 63: 608.

Vespa communis var. *flavida* Sladen, 1918. Ottawa Nat. 32: 71. ♀.

pensylvanica (Saussure). Western U. S. and Canada east to Alta., S. Dak., Nebr., Colo., N. Mex. Also in Mexico (Mexico City) and Hawaii (introduced). Mainly Transition Zone.

Vespa pensylvanica Saussure, 1857. Stettin. Ent. Ztg. 18: 117. ♀.

Vespa occidentalis Cresson, 1874. Amer. Ent. Soc. Trans. 5: 100. ♀ ☿. Preocc.

Vespula pensylaniva (!) "Saussure" Bequaert, 1931. Ent. Amer. (n. s.) 12: 95.

rufa acadica (Sladen). N. S., Que., Maine, N. H., Mass., Mich., Minn., S. Dak. *V. rufa rufa* (L.) is Palaearctic.

Vespa rufa var. *americana* Buysson, 1905. Soc. Ent. France Ann. 63: 499. ♂. Preocc.

Vespa acadica Sladen, 1918. Ottawa Nat. 32: 72. ♂ ♀ ☿.

rufa atropilosa (Sladen). West. Canada and U. S. east to Alta., Mont., Wyo., Colo., Ariz. Also Lower Calif.

Vespa atropilosa Sladen, 1918. Ottawa Nat. 22: 72. ♀ ☿.

rufa consobrina (Saussure). Canada and north. U. S. south to Calif., Colo., Mich., N. C. (mountains). Canadian, Transition, and rarely in Upper Austral Zones.

Vespa consobrina Saussure, 1864. Études sur la famille des Vespides, v. 2, p. 141. ☿.

Vespa scelesta McFarland, 1888. Amer. Ent. Soc. Trans. 15: 298. ♂ ♀ ☿.

Vespa sulcata Howard, 1901. Insect Book, pl. 6, fig. 18. ☿ (without locality or description).

rufa intermedia (Buysson). Alaska, Canada. Hudsonian Zone.

Vespa rufa var. *intermedia* Buysson, 1905. Soc. Ent. France Ann. 73: 591. ♂ ♀.

rufa sladeni Bequaert. Alaska, west. U. S., and Canada east to Alta., Mont., Wyo., Colo. Also Mexico (Jalaca).

Vespula rufa sladeni Bequaert, 1931. Ent. Amer. (n. s.) 12: 102. ♂ ♀ ☿.

rufa vidua (Saussure). Southeast. Canada, east. U. S. west to N. Dak., Iowa, Ill., Ind., Va., south to Ga. Upper Austral and less commonly in Transition Zone.

Vespa vidua Saussure, 1854. Études sur la famille des Vespides, v. 2, p. 136. ☿.

squamosa (Drury). Southwest. U. S. north to N. J., Pa., west to Tex., Okla., Ind. Also Ont.; Mexico, Guatemala. Most common in Lower Austral Zone.

Vespa squamosa Drury, 1773. Illus. Nat. Hist., Index to pt. 1 published with pt. 2.

Vespa lineata Fabricius, 1775. Systema Ent., p. 365.

Vespa conchacea Christ, 1791. Naturgesch. Insekt. Bienen, Wespen u. Ameisengeschl., p. 259.

Vespa cuneata Fabricius, 1804. Systema Piezatorum, p. 258.

Vespa cruciata Lepeletier, 1836. Hist. Nat. Ins. Hym., v. 1, p. 513. Emend. of *cuneata*.

Vespa bistriata McFarland, 1888. Amer. Ent. Soc. Trans. 15: 298. ♀. Preocc.

Vespa macfarlandi Lewis, 1897. Amer. Ent. Soc. Trans. 24: 172. ♀. N. name.

sulphurea (Saussure). Calif., Nev., Ariz.

Vespa sulphurea Saussure, 1854. Études sur la famille des Vespides 2: 137. ♀.

vulgaris (Linnaeus). Alaska, U. S. south to Calif., Ariz., N. Mex., Iowa, Ill., N. C. Also widespread in Palearctic Region and introduced into New Zealand. Mostly Canadian and Transition Zones.

Vespa vulgaris Linnaeus, 1758. Syst. Nat., ed. 10, v. 1, p. 572. ♀.
Vespa communis Saussure, 1857. Stettin. Ent. Ztg. 18: 117. ♀.
Vespa alascensis Packard, 1870. Chicago Acad. Sci. Trans. 2: 27. ♀.
Vespa westwoodii Shipp, 1893. Psyche 6: 450.

Subgenus DOLICHOVESPULA Rohwer

Dolichovespula Rohwer, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 642.
Type: *Vespa maculata* Linnaeus. Orig. desig.
Pseudovespula Bischoff, 1931. Gesell. Naturf. Freunde Sitzber. (1930), p. 346.
Type: *Vespa norwegica* var. *adulterina* Buysson. Orig. desig.
Boreovespula Bluethgen, 1943. Stettin. Ent. Ztg. 104: 149.
Type: *Vespa norwegica* Fabricius. Orig. desig.
Metavespula Bluethgen, 1943. Stettin Ent. Ztg. 104: 149.
Type: *Vespa silvestris* Scopoli. Orig. desig.

Nests are usually aerial, suspended at some height or in bushes near the ground. Combs are usually turned up at the margins so as to be concave above. Colonies usually do not last beyond July.

adulterina adulterina (Buysson). Alta., B. C., Wyo., Colo., Idaho, Wash., Oreg., Calif.; Asia (Sakhalin Island, Mongolia, Russia). Canadian and Transition Zones.

Vespa norwegica var. *adulterina* Buysson, 1905. Soc. Ent. France Ann. 63: 600. ♀.

adulterina arctica Rohwer. Alaska, Canada, north. U. S. south to Colo., Calif. (northern), Mich., N. C. (mountains). Canadian and Transition Zones.

Vespa borealis Lewis, 1897. Amer. Ent. Soc. Trans. 24: 171. ♂ ♀. Preocc.
Vespula arctica Rohwer, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 642. N. name.

arenaria arenaria (Fabricius). Widespread in U. S., Canada, Alaska to Arctic Circle.

Vespa arenaria Fabricius, 1775. Systema Ent., p. 365.
Vespa borealis Kirby, 1837. Fauna Bor.-Amer., v. 4, p. 264. Preocc.
Vespa diabolica Saussure, 1854. Etudes sur la famille des Vespides, v. 2, p. 138. ♀ ♀.

arenaria fernaldi (Lewis). Widespread in North America, particularly in Rocky Mts. and Pacific Coast.

Vespa fernaldi Lewis, 18:7. Amer. Ent. Soc. Trans. 24: 171. ♀ ♀.

maculata (Linnaeus). Widespread in U. S. and Canada. Upper and Lower Austral and Transition Zones.

Vespa maculata Linnaeus, 1763. Centuria Ins. Rar., p. 30.
Vespa maculata americana Christ, 1791. Naturgesch. Insekt. Bienen, Wespen u. Ameisengeschl., p. 239.

norwegica albida (Sladen). Alaska, Yukon Territory, Labrador. Hudsonian Zone. *Norwegica norwegica* (F.) is Palaearctic.

Vespa marginata Kirby, 1837. Fauna Bor.-Amer., v. 4, p. 265. ♀. Preocc.
Vespa albida Sladen, 1918. Ottawa Nat. 32: 71. ♂ ♀.

norwegica norvegicoides (Sladen). Alaska, Canada, U. S. south to Oreg., Utah, Colo., N. Mex., Mich., N. C. (mountains). Canadian Zone.

Vespa norvegicoides Sladen, 1918. Ottawa Nat. 32: 71. ♂ ♀.

Subfamily POLISTINAE

Nests are formed of a single horizontal comb of hexagonal paper cells, attached to a support by a pedicel. The nests are annual and the queen founders are often difficult to distinguish from workers. In cold climates the queens hibernate. Larvae are fed chiefly on food of animal origin. Common parasites or inquilines are *Chalcoela iphitalis* (Walker), *Polistophaga fulva* (Cresson), and *Dicymolomia pegasalis* (Walker).

Genus POLISTES Latreille

Polistes Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 363.
Type: *Vespa gallica* Linnaeus. Desig. by Blanchard, 1840.
Eupolistes Dalla Torre, 1904. *In* Wytsman, Gen. Ins., v. 19, p. 68. N. name for *Polistes*.
Polistoides Dalla Torre, 1904. *In* Wytsman, Gen. Ins., v. 19, p. 68. Preocc.
Type: *Polistes subsericius* Saussure. Monob.
Pseudopolistes Weyrauch, 1937. Zool. Jahrb. Abt. System. 70: 266.
Type: *Polistes sulcifer* Zimmerman. Desig. by Weyrauch, 1939.
Sulcopolistes Bluethgen, 1938. Konowia 16: 273.
Type: *Polistes semenowi* Morawitz. Orig. desig.

Revision: Bequaert, 1937. Arch. Inst. Biol. Veg., Rio de Janeiro 3: 171–205.—Bequaert, 1940. N. Y. Ent. Soc. Jour. 48: 1–31.—Bequaert, 1943. Ent. Venezolana Bol. 2: 107–124.

annularis (Linnaeus). U. S. west to Tex., Okla., Kans., Nebr., S. Dak., north to Iowa, Conn.
Vespa annularis Linnaeus, 1763. Centuria Ins. Rar., p. 30.
Vespa cincta Drury, 1773. Illus. Nat. Hist., Index to pt. 1 published with pt. 2.
Vespa virginiensis "Drury" Dalla Torre, 1894. Cat. Hym., v. 9, p. 122.
Polistes annulata "Moebius" Dalla Torre, 1894. Cat. Hym., v. 9, p. 123.

apachus Saussure. Tex., Okla., Kans , N. Mex., Colo., Calif. (as far north as Modesto); Mexico (Durango).
Polistes apachus Saussure, 1857. Soc. Ent. France Ann. (3) 5: 314.
Polistes texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 246. ♂ ♀.

bellicosus Cresson. Gulf Coast states and Ga.
Polistes bellicosus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 247. ♂ ♀.

canadensis canadensis (Linnaeus). Ariz. (extreme south); Mexico, Centra America, South America.
Vespa canadensis Linnaeus, 1758. Syst. Nat., ed. 10, v. 1, p. 574.

canadensis comanchus Saussure. Tex. (southwestern); Mexico.
Polistes comanchus Saussure, 1857. Soc. Ent. France Ann. (3) 5: 314.

canadensis kaibabensis Hayward. Ariz. (Grand Canyon).
Polistes canadensis var. *kaibabensis* Hayward, 1932. Utah Acad. Sci. Proc. 9: 89. ♂ ♀.

canadensis navajoe Cresson. N. Mex., Ariz. Calif., Tex.; Mexico.
Polistes navajoe Cresson, 1868. Amer. Ent. Soc. Trans. 1: 383. ♀.
Polistes novajoe (!) "Cresson" Dalla Torre, 1894. Cat. Hym., v. 9, p. 132.
Polistes novajae (!) Dalla Torre, 1894. Cat. Hym., v. 9, p. 177.

exclamans exclamans Viereck. Calif., Ariz., Colo., Okla., Kans., Nebr., Iowa, Tex., La., Ark., Ala., N. C., S. C., Ga., Fla.; Mexico.
Polistes exclamans Viereck, 1906. Amer. Ent. Soc. Trans. 32: 201. ♀.

exclamans louisianus Bequaert. La.
Polistes exclamans louisianus Bequaert, 1940. N. Y. Ent. Soc. Jour. 48: 14. ♀.

flavus Cresson. Utah (southern), Ariz., Colo. (southern), N. Mex., Tex. (western); Mexico.
Polistes flavus Cresson, 1868. Amer. Ent. Soc. Trans. 1: 383. ♀.

fuscatus aurifer Saussure. Calif., Oreg., Wash., Ariz., Nev., Idaho, B. C. Also Oahu, T. H.
Polistes aurifer Saussure, 1853. Études sur la famille des Vespides, v. 2, p. 78. ♀.
Polistes anaheimensis Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 423. ♂ ♀.

fuscatus centralis Hayward. Southwest. U. S. including Tex. (western), N. Mex. Colo., Utah, Ariz., Calif. (southern); Lower Calif.
Polistes fuscatus var. *centralis* Hayward, 1933. Utah Acad. Sci. Proc. 10: 143. ♂ ♀.

fuscatus fuscatus (Fabricius). Area bounded roughly by Kans., Nebr., southeast Canada, New England, S. C., W. Va., Ala., Ark.

Vespa fuscata Fabricius, 1793. Ent. System., v. 2, p. 260.
Vespa nestor Fabricius, 1798. Sup. Ent. System., p. 262.

fuscatus laurentianus Bequaert. Ont., Que., Mich.
Polistes fuscatus laurentianus Bequaert, 1942. Canad. Ent. 74: 159. ♂ ♀.

fuscatus montanus Bequaert. Mont., Idaho, Oreg., Wash., B. C.
Polistes fuscatus montanus Bequaert, 1940. N. Y. Ent. Soc. Jour. 48: 26. ♂ ♀.

fuscatus pallipes Lepeletier. Southeast. Canada, northeast. U. S. south to W. Va., Mts. of N. C.
Polistes pallipes Lepeletier, 1836. Hist. Nat. Ins. Hym., v. 1, p. 530. ♀.
Polistes exilis Saussure, 1853. Études sur la famille des Vespides, v. 2, p. 85. ♂.
Polistes pallidipes "Lepeletier" Dalla Torre, 1894. Cat. Hym., v. 9, p. 133. Emend.

fuscatus utahensis Hayward. Utah, Idaho, Oreg., B. C., Nev., Ariz., Colo., Wyo.
Polistes fuscatus var. *utahensis* Hayward, 1933. Utah Acad. Sci. Proc. 10: 142. ♂ ♀.
Polistes fuscatus var. *vtriatus* (!) "Cresson" Hayward, 1933. Utah Acad. Sci. Proc. 10: 142.

fuscatus variatus Cresson. Central states from south. Canada to north. Mexico, west to Great Basin, east to Mississippi Valley.
Polistes variatus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 247. ♂ ♀.

hunteri californicus R. Bohart. Calif., Ariz.; Lower Calif.
Polistes hunteri californicus R. Bohart, 1949. Pan-Pacific Ent. 25: 101. ♂ ♀.

hunteri hunteri Bequaert. East. and south. U. S. and Mexico. Not in Calif.
Polistes fuscatus hunteri Bequaert, 1940. N. Y. Ent. Soc. Jour. 48: 23. ♂ ♀.

hunteri neotropicus Bequaert. Honduras, Guatemala, Mexico; Tex. (western), N. Mex., Colo.
Polistes fuscatus neotropicus Bequaert, 1940. N. Y. Ent. Soc. Jour. 48: 28. ♂ ♀.

major bakeri Bequaert. Tex. (southwestern); Mexico.
Polistes major bakeri Bequaert, 1940. N. Y. Ent. Soc. Jour. 48: 15. ♂ ♀.

major castaneicolor Bequaert. Ariz. (southern), N. Mex.; Mexico.
Polistes major var. *castaneicolor* Bequaert, 1936. Ent. News 47: 12. ♂ ♀.

major major Palisot de Beauvois. Ariz. (western mts.), Tex. (Brownsville); Central America, south to Brazil, West Indies.
Polistes major Beauvois, 1818. Ins. Afr., Amer., p. 206.

major palmarum Bequaert. Calif. (Palm Springs).
Polistes major var. *palmarum* Bequaert, 1936. Ent. News 47: 11. ♀.

metricus Say. East. U. S. west to Tex., Okla., Kans., Nebr., north to N. Y., Pa., Ohio, Ind., Ill., Iowa.
Polistes metrica Say, 1831. Indiana: School Press, New Harmony, p. 15.

rubiginosus Lepeletier. East. U. S. west to Tex., Okla., Kans., north to Ill., Ind., Ohio, Pa., N. J.
Polistes rubiginosa Lepeletier, 1836. Hist. Nat. Ins. Hym., v. 1, p. 524. ♂.
Polistes perplexus Cresson, 1870. Amer. Ent. Soc. Trans. 4: 245. ♀.
Polistes generosus Cresson, 1870. Amer. Ent. Soc. Trans. 4: 246. ♂.

Subfamily POLYBIINAE

Genus MISCHOCYTTARUS Saussure

Revision: Bequaert, 1933. Ent. Amer. (n. s.) 13: 87–150.—Richards, 1945. Roy. Ent. Soc., London, Trans. 95: 295–462.

The nests are similar to those of *Polistes*, but average somewhat smaller. They consist of a single free comb of hexagonal paper cells and are attached by a short pedicel (in North American forms) to a natural or man-made support usually some distance from the ground. Each colony is generally started by a single fertile female or queen.

Subgenus MISCHOCYTTARUS Saussure

Mischocyttarus Saussure, 1853. Études sur la famille des Vespides, v. 2, p. 19. Type: ***Zethus labiatus*** Fabricius. Desig. by Ashmead, 1902.
Mischocythorus (!) Saussure, 1853. Études sur la famille des Vespides 1, Introduct. p. VIII. Nom. nud.

The species occur in Mexico, Central America, and South America.

Subgenus KAPPA Saussure

Kappa Saussure, 1854. Études sur la famille des Vespides, v. 2, p. 200. Type: ***Polybia injucunda*** Saussure. Desig. by Bequaert, 1933.

cubensis cubensis (Saussure). Ga., Fla., Ala.; Bahamas, Cuba.
Polybia cubensis Saussure, 1854. Études sur la famille des Vespides, v. 2, p. 202. ♂ ♀.
Polybia phthisica Cresson, 1865. Ent. Soc. Phila. Proc. 4: 167. ♂ ♀.

cubensis mexicanus (Saussure). Tex. (Brownsville); Mexico, Central America.
Polybia mexicana Saussure, 1854. Etudes sur la famille des Vespides, v. 2, p. 203. ♀.

flavitarsis centralis Bequaert. Utah, Colo., Nebr., N. Mex., Tex. (western).
Mischocyttarus flavitarsis var. ***centralis*** Bequaert, 1933. Ent. Amer. (n. s.) 13: 129. ♂ ♀.

flavitarsis flavitarsis (Saussure). Calif., Oreg., Utah, Colo., Nebr., Ariz.
Polybia flavitarsis Saussure, 1854. Études sur la famille des Vespides, v. 2, p. 199. ♀.

flavitarsis idahoensis Bequaert. B. C., Wash., Oreg., Idaho, Mont., Utah, Colo.
Mischocyttarus flavitarsis var. ***idahoensis*** Bequaert, 1933. Ent. Amer. (n. s.) 13: 133. ♂ ♀.

flavitarsis kaibabensis Bequaert. Ariz. (Grand Canyon, Kayenta).
Mischocyttarus flavitarsis var. ***kaibabensis*** Bequaert, 1933. Ent. Amer. (n. s.) 13: 133. ♀.

flavitarsis navajo Bequaert. Ariz.; Mexico.
Mischocyttarus flavitarsis var. ***navajo*** Bequaert, 1933. Ent. Amer. (n. s.) 13: 131. ♂ ♀.

Genus BRACHYGASTRA Perty

Brachygastra Perty, 1833. Delect. Anim. Articul. Brasil, p. 145. Type: (***Brachygastra analis*** Perty)=***Polistes lecheguana*** Latreille. Desig. by Bequaert, 1933.
Nectarina Swainson and Shuckard, 1840. On the history and natural arrangement of insects, p. 183. N. name for *Brachygastra*.
Melissaia Shuckard, 1841. *In* White, Ann. Mag. Nat. Hist. 7: 320. N. name for *Nectarina*.
Brachygaster (!) Saussure, 1853. Études sur la famille des Vespides, v. 1, p. 171. Preocc.
Nectarinia (!) Saussure, 1854. Études sur la famille des Vespides, v. 2, p. 225. Preocc.
Caba Ihering, 1904. Rev. Mus. Paulista 6: 103. N. name for *Nectarina*.
Revision: Bequaert, 1933. Ent. Amer. (n. s.) 13: 87–112.

The genus is essentially Neotropical but one species extends its range into southern United States. The perennial paper nests are attached to branches of low trees and are begun by small swarms of fertile queens and workers. An average nest is subglobular, is enclosed in a single sheet of papery material, is about 1 foot in diameter, contains about 50,000 cells arranged in layers, has several entrances, and has spiral ramps connecting the tiers of cells. The adults collect and store honey but do not cap the cells.

lecheguana (Latreille). Ariz. (southern), Tex. (Brownsville); Lower Calif., Mexico, Central America, South America south to Buenos Aires.
Vespa sericea Fabricius, 1804. Systema Piezatorum, p. 266. Preocc.
Polistes lecheguana Latreille, 1824. Paris Mus. Hist. Nat. Mem. 11: 317. ♀.
Brachygastra analis Perty, 1833. Delect. Anim. Arctic. Brasil, p. 146. ♀.
Polistes mellifica Say, 1837. Boston Jour. Nat. Hist. 1 (pt. 4): 390. ♂ ♀.
Nectarinia binotata Saussure, 1854. Études sur la famille des Vespides, v. 2, p. 230. ♂.
Nectarina mellifera "Say" Dalla Torre, 1904. Gen. Ins., v. 19, p. 86.
Chartergus aztecus Cameron, 1906. Invertebrata Pacifica 1: 154. ♀. Preocc.
Chartergus arizonaensis Cameron, 1907. Invertebrata Pacifica 1: 181. ♀.
Chartergus centralis Cameron, 1907. Invertebrata Pacifica 1: 181. ♀.
Nectarina cameroni Meade-Waldo, 1911. Ann. Mag. Nat. Hist. (8) 7: 112. N. name.

Subfamily ZETHINAE

Genus ZETHUS Fabricius

Revision: Isely, 1917. Ent. Soc. Amer. Ann. 10: 364–366.

Nests are of various types and some show an approach to social habits. Wood cavities may be utilized as in many strictly solitary wasps, or several females may construct a colony of cells of vegetable fibers or leaves pasted together with a resinous material. In the latter case each wasp feeds its own larvae, using caterpillars. In still other species abandoned cells of *Polistes* and *Mischocyttarus* are used.

Subgenus ZETHUS Fabricius

Zethus Fabricius, 1804. Systema Piezatorum, pp. xii, 282.
Type: *Vespa coeruleopennis* Fabricius. Desig. by Blanchard, 1840. Blanchard (1840 Hist. Nat. Ins., v. 3, p. 393) used the erroneous name "*Zethus coeruleus*."
Euzethus Dalla Torre, 1904. Gen. Ins., v. 19, p. 14. N. name.

The species are South American.

Subgenus ZETHUSCULUS Saussure

Lethus (!) Say, 1836. Boston Jour. Nat. Hist. 1: 209. In error for *Zethus* Fabricius.
Zethusculus Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 118.
Type: *Zethus jurinei* Saussure. Desig. by Ashmead, 1902.

arizonensis R. Bohart. Ariz., N. Mex.
Zethus (Zethusculus) arizonensis Bohart, 1950. Biol. Soc. Wash. Proc. 63: 77. ♂ ♀.

slossonae Fox. Fla. (southern).
Zethus slossonae Fox, 1892. Ent. News 2: 29. ♂ ♀.

spinipes spinipes Say. East. U. S. north to Conn., Pa., Ill., Ind. west to Kans., Tex. Nests in mud cells attached to twigs.
Zethus spinipes Say, 1837. Boston Jour. Nat. Hist. 1: 387. ♀.
Eumenes pensilvanica Haldeman, 1853. Acad. Nat. Sci. Phila. Proc. 6: 365.
Eumenes substricta Haldeman, 1844. Acad. Nat. Sci. Phila. Proc. 2: 54.
Zethus pensylvanica "Haldeman" Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 29. Emend.
Zethus pennsylvanica "Haldeman" Dalla Torre, 1894. Cat. Hym., v. 9, p. 14. Emend.
Biology: Ashmead, 1894. Psyche 7: 77.

spinipes variegatus Saussure. East. seaboard states from Pa. to Fla., Ind., east. Tex.
Zethus variegatus Saussure, 1852. Études sur la famille des Vespides, v. 1, p. 13. ♀.
Zethus bicolor Saussure, 1852. Études sur la famille des Vespides, v. 1, p. 17. ♂.

Subfamily MASARINAE

Genus PSEUDOMASARIS Ashmead

Revision: Bradley, 1922. Calif. Univ. Pubs. Ent. 1: 369-464.—Bequaert. 1929. Psyche 36: 61-88.

Nests are of hard mud or sand and mud attached to rocks or twigs. The cells have been found in clumps of 2 to 13 and are provisioned with pollen and nectar.

Subgenus PSEUDOMASARIS Ashmead

Pseudomasaris Ashmead, 1902. Canad. Ent. 34: 221.
Type: ***Masaris occidentalis*** Cresson. Orig. desig.
Cotyledon Bradley, 1922. Calif. Univ. Pubs. Ent. 1: 408.
Type: ***Masaris edwardsii*** Cresson. Orig. desig.
Biology: Linsley and Michener, 1942. Pan-Pacific Ent. 18: 27.

coquilletti Rohwer. Calif., Oreg. (Klamath Falls). Upper Sonoran and Transition Zones on *Eriodyction* and *Phacelia*. Makes a two-cell high mud tenement attached to rocks.
Pseudomasaris coquilletti Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 555. ♂ ♀.

edwardsii (Cresson). Calif., Nev., Utah, Wyo., Idaho, Oreg., Wash. Mostly Transition Zone on *Phacelia*. Makes clay nests of 1 to 10 cells attached to rocks.
Masaris edwardsii Cresson, 1872. Amer. Ent. Soc. Trans. 4: 87. ♂ ♀.
Biology: Bequaert, 1929. Psyche 36: 71.—Hicks, 1929. Canad. Ent. 61: 121–125.

marginalis (Cresson). N. Mex., Colo., Wyo., Mont., Alta. Canadian Zone on *Phacelia*.
Masaris marginalis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 677. ♀.
Biology: Bequaert, 1929. Psyche 36: 72.

occidentalis (Cresson). Tex.
Masaris occidentalis Cresson, 1871. Amer. Ent. Soc. Trans. 3: 348. ♀.

phaceliae Rohwer. N. Mex. On Phacelia.
Pseudomasaris phaceliae Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 450. ♂ ♀.
Biology: Bradley, 1922. Calif. Univ. Pubs. Ent. 1: 420.

wheeleri Bequaert. Calif. Upper Sonoran and Transition Zones on *Eriodyction* and *Pentstemon*.
Pseudomasaris wheeleri Bequaert, 1929. Psyche 36: 61. ♂ ♀.
Biology: Bequaert, 1929. Psyche 36: 69.

zonalis albopictus R. Bohart. Wyo., Idaho, Wash., Oreg.
Pseudomasaris zonalis Bohart, 1950. Biol. Soc. Wash. Proc. 63: 78. ♂ ♀.

zonalis zonalis (Cresson). Calif., Nev., Utah, Colo., Idaho, Oreg., Wash., B. C. Transition, Canadian and Hudsonian Zones on *Phacelia*.
Masaris zonalis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 674. ♂ ♀.

Subgenus TORYNA Bradley

Toryna Bradley, 1922. Calif. Univ. Pubs. Ent. 1: 407.
Type: *Masaris vespoides* Cresson. Orig. desig.

vespoides (Cresson). Western U. S. east to S. Dak., Colo., N. Mex.; north to Oreg., Idaho, Wyo. On *Pentstemon*, *Phacelia*, and other plants in Transition Zone. Attach nests of hard mud to rocks; 2 to 13 cells placed vertically with tops in a straight line; cells lined with silk stored with pollen.
Masaris vespoides Cresson, 1863. Ent. Soc. Phila. Proc. 2: 287. ♂ ♀.
Pseudomasaris vespoides robertsoni Cockerell, 1913. Ent. Soc. Wash. Proc. 15: 107. ♀.
Biology: Ashmead, 1902. Canad. Ent. 34: 219.—Cockerell, 1913. Ent. Soc. Wash. Proc. 15: 107.—Davidson, 1913. South. Calif. Acad. Sci. Bul. 12: 17–18.—Hicks, 1927. Canad. Ent. 49: 75–79.—Bequaert, 1929. Psyche 36: 71.—Linsley and Michener, 1942. Pan-Pacific Ent. 18: 27.

Subgenus HOLOPTICUS Bradley

Holopticus Bradley, 1922. Calif. Univ. Pubs. Ent. 1: 408.
Type: *Masaris texanus* Cresson. Orig. desig.

bariscipus Bradley. Ariz. (Quartzite).
Pseudomasaris bariscipus Bradley, 1922. Calif. Univ. Pubs. Ent. 1: 418. ♂.

maculifrons (Fox). Calif. (far south), Ariz.; Lower Calif. Lower Sonoran Zone.
Masaris maculifrons Fox, 1894. Calif. Acad. Sci. Proc. (2) 4: 12. ♀.
Pseudomasaris albifrons Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 451. ♂.
Pseudomasaris zonalis neomexicanus Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 452. ♀.
Pseudomasaris zonalis basirufus Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 452. ♀.

rohweri Bradley. Ariz., Nev., Calif. Upper Sonoran Zone on *Phacelia*.
Pseudomasaris rohweri Bradley, 1922. Calif. Univ. Pubs. Ent. 1: 417. ♂.

texanus (Cresson). Tex.
Masaris texanus Cresson, 1871. Amer. Ent. Soc. Trans. 3: 348. ♂ ♀.

Subfamily EUPARAGIINAE

Genus EUPARAGIA Cresson

Euparagia Cresson, 1879. Acad. Nat. Sci. Phila. Proc. (Ent. Sect.) 6: vi.
Type: *Euparagia scutellaris* Cresson. Monob.
Plesiomasaris Cameron, 1904. Amer. Ent. Soc. Trans. 30: 266.
Type: *Plesiomasaris maculiceps* Cameron. Monob.
Revision: Bohart, 1948. Pan-Pacific Ent. 24: 149–154.

The species, which are all rare, are usually collected in association with *Eriogonum* and generally on dry hillsides.

boregoensis R. Bohart. Calif. (southeastern). Desert species, Lower Sonoran Zone.
Euparagia boregoensis R. Bohart, 1948. Pan-Pacific Ent. 24: 152. ♂ ♀.

desertorum R. Bohart. Calif. Desert species, Lower Sonoran Zone.
Euparagia desertorum R. Bohart, 1948. Pan-Pacific Ent. 24: 151. ♂ ♀.

maculiceps (Cameron) Ariz., N. Mex., Tex.; Mexico.
Plesiomasaris maculiceps Cameron, 1904. Amer. Ent. Soc. Trans. 30: 267. ♂.
Odynerus simplicipes Cameron, 1905. Amer. Ent. Soc. Trans. 31: 380. ♂.
Odynerus vicarius Schulz, 1906. Spolia Hym., p. 219. N. name for *simplicipes* Cameron.
Psiloglossa simplicipes Rohwer, 1909. Ent. News 20: 357. ♀.

platiniceps R. Bohart. Calif. Desert species, Lower Sonoran Zone.
Euparagia platiniceps R. Bohart, 1938. Pan-Pacific Ent. 14: 138. ♂.

scutellaris Cresson. Calif. Transition Zone. Makes shallow burrows in hard ground, topped with slender curved chimneys, burrows ending in one or more cells provisioned with weevil larvae.
Euparagia scutellaris Cresson, 1879. Acad. Nat. Sci. Phila. Proc. (Ent. Sect.) 6: 6. ♂ ♀.
Euparagia maculifrons "Cresson" (!) Bradley, 1922. Calif. Univ. Pubs. Ent. 1: 384.
Biology: Williams, 1927. Pan-Pacific Ent. 4: 38–39.

timberlakei R. Bohart. Calif., Nev., Ariz. Desert species, L. Sonor. Zone.
Euparagia timberlakei R. Bohart, 1948. Pan-Pacific Ent. 24: 150. ♂ ♀.

Genus PARAMASARIS Cameron

Paramasaris Cameron, 1901. Amer. Ent. Soc. Trans. 27: 312.
Type: *Paramasaris fuscipennis* Cameron. Monob.
Zethoides Cameron, 1904. Amer. Ent. Soc. Trans. 30: 93. Preocc.
Type: *Zethoides flavolineatus* Cameron. Monob.

Plesiozethus Cameron, 1905. Entomologist 38: 269. N. name.
Metazethoides Schulz, 1906. Spolia Hym., p. 213. N. name.

fuscipennis Cameron. N. Mex.; Guatemala, Panama, Colombia.
Paramasaris fuscipennis Cameron, 1901. Amer. Ent. Soc. Trans. 27: 312. ♀.
Zethoides flavolineatus Cameron, 1904. Amer. Ent. Soc. Trans. 30: 94. ♂.

Subfamily EUMENINAE

Genus EUMENES Latreille

Eumenes Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 360.
Type: *Vespa coarctata* Linnaeus. Desig. by Latreille, 1810.
Alpha Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 128.
Type: *Vespa coarctata* Linnaeus. Desig. by Bequaert, 1926.
Eumenis Kriechbaumer, 1879. Ent. Nachr. 5: 57. Emend.
Eumenidion Schulthess, 1913. Soc. Ent. 28: 2.
Type: *Vespa coarctata* Linnaeus. Orig. desig.
Revision: Isely, 1917. Ent. Soc. Amer. Ann. 10: 345–363.—Bequaert, 1938. Brooklyn Ent. Soc. Bul. 33: 59–70.—Bequaert, 1944. Nat. Canad. 71: 75–88.

So far as is known, all species make juglike mud nests, which are usually attached to twigs and are provisioned with caterpillars.

aureus Isely. Tex. (western), N. Mex., Ariz., Calif. (southern); Lower Calif., Mexico.
Eumenes belfragei aureus Isely, 1917. Ent. Soc. Amer. Ann. 10: 352. ♀.

bollii bollii Cresson. Western half of U. S. north to Nebr., Colo., Utah, Nev., Calif., Alta., Mo., Iowa, Minn.; Lower Calif., Mexico.
Eumenes bollii Cresson, 1872. Amer. Ent. Soc. Trans. 4: 232. ♂ ♀.
Biology: Isely, 1914. Kans. Univ. Sci. Bul. (2) 8: 299–301.

bollii oregonensis Bequaert. Wash., Oreg., Idaho, Nev.
Eumenes bollii var. *oregonensis* Bequaert, 1938. Brooklyn Ent. Soc. Bul. 33: 66. ♀.

crucifera bolliformis Viereck. Ariz., N. Mex.; Mexico.
Eumenes bolliformis Viereck, 1908. Amer. Ent. Soc. Trans. 33: 387. ♂ ♀.
Eumenes robustus Isely, 1917. Ent. Soc. Amer. Ann. 10: 360. ♀.

crucifera crucifera Provancher. Western U. S. east to Colo., S. Dak. and north to Wyo., B. C., Alta.
Eumenes crucifera Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 421. ♀.
Eumenes marginilineatus Viereck, 1907. Amer. Ent. Soc. Trans. 33: 381. ♂.
Eumenes emarginilineatus (!) Viereck, 1907. Amer. Ent. Soc. Trans. 33: 388.
Eumenes sternalis Isely, 1917. Ent. Soc. Amer. Ann. 10: 353. ♂.
Eumenes xanthogaster Isely, 1917. Ent. Soc. Amer. Ann. 10: 353. ♂.

crucifera flavitinctus R. Bohart. Calif.
Eumenes crucifera flavitinctus Bohart, 1950. Biol. Soc. Wash. Proc. 63: 79. ♂ ♀.

crucifera nearcticus Bequaert. Transcontinental. north to 63° N. Latitude, south to Oreg., Utah, Colo., Ky., N. J.
Eumenes minuta Saussure, 1852. Études sur la famille des Vespides, v. 1, p. 39. ♂. Preocc.
Eumenes globulosus Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 139. ♀. Preocc.
Eumenes nearcticus Bequaert, 1944. Nat. Canad. 71: 82. ♂ ♀. N. name for *globulosus*.

crucifera stricklandi Bequaert. Alta. (Cypress Hills).
Eumenes coloradensis stricklandi Bequaert, 1944. Nat. Canad. 71: 84. ♀.

fraternus Say. U. S. west to Tex., Okla., Kans., Nebr., Minn. Also Ont.
Eumenes fraterna Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 344.
Eumenes fervens Saussure, 1852. Études sur la famille des Vespides, v. 1, p. 40. ♂ ♀.
Biology: Isely, 1914. Kans. Univ. Sci. Bul. (2) 8: 301.

iturbide iturbide Saussure. Colo., N. Mex., Ariz.; Mexico.
Eumenes iturbide Saussure, 1857. Rev. Mag. Zool. (2) 9: 271.
Eumenes globulosiformis Viereck, 1908. Amer. Ent. Soc. Trans. 33: 386. ♂ ♀.

iturbide pedalis Fox. B. C., Wash., Idaho, Mont., Wyo., Colo., Utah, Calif.; Lower Calif.
Eumenes pedalis Fox, 1894. Calif. Acad. Sci. Proc. (2) 4: 109. ♂ ♀.
Eumenes crassicornis Isely, 1917. Ent. Soc. Amer. Ann. 10: 362. ♂.
Eumenes pachygaster Isely, 1917. Ent. Soc. Amer. Ann. 10: 362. ♀.

sculleni R. Bohart. Nev., Utah.
Eumenes sculleni Bohart, 1950. Biol. Soc. Wash. Proc. 63: 78. ♂ ♀.

smithii belfragei Cresson. Tex. (eastern), Ark., Okla., Kans., Colo.
Eumenes belfragei Cresson, 1872. Amer. Ent. Soc. Trans. 4: 232. ♂ ♀.
Eumenes brunneus Isely, 1917. Ent. Soc. Amer. Ann. 10: 348. ♂. Preocc.

smithii smithii Saussure, Fla., Ala., Miss.
Eumenes smithii Saussure, 1852. Études sur la famille des Vespides, v. 1, p. 43. ♂ ♀.

verticalis coloradensis Cresson. Western U. S. and Canada (except Oreg., Calif) east to Sask., S. Dak., Colo., N. Mex.; Mexico.
Eumenes coloradensis Cresson, 1875. Rpt. Geog. Geol. Expl. and Survey west of 100th Meridian, v. 5, p. 717. ♂ ♀.
Eumenes cruciferorum Viereck, 1908. Amer. Ent. Soc. Trans. 33: 388. ♂ ♀.
Eumenes enigmatus Viereck, 1908. Amer. Ent. Soc. Trans. 33: 389. ♂.
Eumenes stenogaster Isely, 1917. Ent. Soc. Amer. Ann. 10: 353. ♂ ♀.
Eumenes enigmaticus (!) Bequaert, 1938. Brooklyn Ent. Soc. Bul. 33: 69.

verticalis neoboreus Bequaert. Que., Ont., Alta., B. C.
Eumenes verticalis neoboreus Bequaert, 1944. Nat. Canad. 71: 87. ♂ ♀.

verticalis tricinctus Isely. Alta., Idaho, Utah, Nev., Oreg., Calif., Ariz.; Lower Calif.
Eumenes tricinctus Isely, 1917. Ent. Soc. Amer. Ann. 10: 361. ♀.

verticalis verticalis Say. Ont., Man., north. and east. U. S. south to N. C., Mo. and west to N. Dak., S. Dak.
Eumenes verticalis Say, 1824. *In* Keating, Narr. Long's 2nd. Exped., v. 2, p. 346.

Genus MONTEZUMIA Saussure

Montezumia Saussure, 1852. Études sur la famille des Vespides, v. 1, p. 87.
Type: *Montezumia rufidentata* Saussure. Desig. by Ashmead, 1902.
Alpha Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 160.
Type: *Montezumia rufidentata* Saussure. Present desig.
Beta Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 162.
Type: *Montezumia morosa* Saussure. Desig. by Bequaert, 1921.
Metazumia Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 114.
Type: *Montezumia huasteca* Saussure. Desig. by Bequaert, 1921.
Eumontezumia Dalla Torre, 1904. Gen. Ins., v. 19, p. 27. N. name.
Revision: Bequaert, 1921. Rev. Zool. Afric. 9: 235–251.—Bequaert, 1940. Ent Soc. Amer. Ann. 33: 96–99.

arizonensis Bequaert. Ariz. (southern).
Montezumia arizonensis Bequaert, 1940. Ent. Soc. Amer. Ann. 33: 96. ♀.

Genus PACHYMENES Saussure

Revision: Bequaert, 1940. Ent. Soc. Amer. Ann. 33: 100–102.

The species build mud nests similar to those of *Eumenes* and provision them with caterpillars.

Subgenus PACHYMENES Saussure

Pachymenes Saussure, 1852. Études sur la famille des Vespides, v. 1, p. 73.
Type: *Pachymenes sericea* Saussure. Desig. by Ashmead, 1902.
Parazumia Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 166.
Type: *Odynerus* (?) *carinulatus* Spinola. Desig. by Bequaert, 1921.

Species of the typical subgenus are not found in our area.

Subgenus PARANORTONIA Bertoni

Paranortonia Bertoni, 1934. Rev. Soc. Cient. Paraguay 3: 109.
Type: *Nortonia tolteca* Saussure. Desig. by Bequaert, 1940.

symmorphus sonorensis Bequaert. Colo., Ariz.; Mexico.
Pachymenes symmorphus sonorensis Bequaert, 1940. Ent. Soc. Amer. Ann. 33: 101. ♂ ♀.

symmorphus symmorphus (Saussure). U. S. west to Tex., Okla., Kans., Iowa.
Odynerus symmorphus Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 246. ♂ ♀.

symmorphus toltecus (Saussure). Ariz., Tex., Mexico.
Nortonia tolteca Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 140. ♂ ♀.

Genus PSEUDODYNERUS Saussure

Pseudodynerus Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 220.
Type: *Odynerus luctuosus* Saussure. Monob.
Revision: Bequaert, 1941. Amer. Mus. Novitates 1106: 1–10.

Nests have been observed in abandoned bee burrows in wood and in hollow reeds.

quadrisectus (Say). East. U. S. north to N. J. and west to Tex., Okla., Kans., Ill
Nests in abandoned galleries bored into wood by *Xylocopa*.
Odynerus quadrisectus "Say" Harris, 1833. *In* Hitchcock, Rpt. Geol. Mineral. Bot. Zool. Mass., p. 589. Nom. nud.
Odynerus quadrisectus Say, 1837. Boston Jour. Nat. Hist. 1: 385. ♂ ♀.
Odynerus bellone Lepeletier, 1841. Hist. Nat. Ins. Hym., v. 2, p. 660. ♂ ♀.
Biology: Ashmead, 1894. Psyche 7: 79.—Bequaert, 1925. Amer. Ent. Soc. Trans. 51: 78.—Rau, 1935. Brooklyn Ent. Soc. Bul. 30: 111.

Genus MONOBIA Saussure

Monobia Saussure, 1852. Études sur la famille des Vespides, v. 1, p. 94.
Type: *Vespa quadridens* Linnaeus. Desig. by Ashmead, 1902.
Triarthra Dalla Torre, 1904. Gen. Ins., v. 19, p. 28. Preocc.
Type: *Odynerus cyanipennis* Guérin. Desig. by Bequaert, 1940.
Tetrarthra Dalla Torre, 1904. Gen. Ins., v. 19, p. 28.
Type: *Vespa quadridens* Linnaeus. Desig. by Bequaert, 1940.
Revision: Bequaert, 1940. Rev. de Ent. 11: 822–842.

Breeding has been reported in hollow stems, in old *Sceliphron* nests, and in an old *Eumenes* nest.

quadridens (Linnaeus). East. and south. U. S. west to N. Mex., Kans., Ill., Wis.
Nests in abandoned carpenter bee tunnels, ground bee tunnels, *Sceliphron* nests, and other similar cavities. The cells are separated by mud partitions, and very little silk is used.
Vespa quadridens Linnaeus, 1763. Centuria Ins. Rar., p. 31.
Vespa quadricornis (!) "Linnaeus" Degeer, 1773. Mém. pour Servir a l'Hist. des Ins., v. 3, p. 584.
Vespa cincta Degeer, 1773. Mém. pour Servir a l'Hist. des. Ins., v. 3, p. 584. Preocc.
Vespa incincta (!) Fabricius, 1804. Systema Piezatorum, p. 259.
Biology: Ashmead, 1894. Psyche 7: 76–78.—Tandy, 1908. Ent. News 19: 231–232. — Rau and Rau, 1918. Wasp Studies Afield, pp. 346–354. — Reinhard, 1929. Witchery of Wasps, p. 86.—Rau, 1931. Brooklyn Ent. Soc. Bul. 26: 4–6.—Rau, 1935. Ent. News 46: 57–58.—Frost, 1944. Ent. News 55: 10–14.

texana (Cresson). Tex., Ariz.; Mexico.
Odynerus texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 234. ♀.
Monobia variabilis Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 137. ♀.

Genus ODYNERUS Latreille

Odynerus Latreille, 1802-1803. Hist. Nat. Crust. Ins., v. 3, p. 362.
Type: ***Vespa spinipes*** Linnaeus. Fixed by Internatl. Comn. Zool. Nomencl. Bul. 5 (4–6): 109, 1950.
Odynera *Illiger*, 1807. Mag. Insektenk. 6: 196. Emend.
Epipone Kirby and Spence, 1815. Introduct. to Ent., v. 1, p. 349. Preocc.
Type: ***Vespa spinipes*** Linnaeus. Monob.
Oplopus Wesmael, 1836. Acad. Sci. Belg. Bul. 3: 45. Preocc.
Type: ***Vespa spinipes*** Linnaeus. Desig. by Richards, 1937.
Oplomerus Westwood, 1840. Introduct. Mod. Class. Ins., v. 2 (Synopsis), p. 84 (not *Oplomerus* Dejean, 1833). N. name.
Hoplomerus Agassiz, 1846. Nomencl. Zool., Index Univ., p. 185. Emend. of *Oplomerus* Westwood.
Hoplopus Agassiz, 1846. Nomencl. Zool., Index Univ., p. 186. Preocc. Emend. of *Oplopus* Wesmael.
Epiponus Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 363.
Type: ***Odynerus dilectus*** Saussure. Monob.
Euepipona Dalla Torre, 1904. Gen. Ins., v. 19, p. 39.
Type: ***Vespa spinipes*** Linnaeus. Desig. by Richards, 1937.
Spinicoxa Bluethgen, 1938. Konowia 16: 285.
Type: ***Vespa reniformis*** Gmelin. Orig. desig.
Gymnomerus Bluethgen, 1938. Konowia 16: 286.
Type: ***Epipone laevipes*** Shuckard. Orig. desig.
Paragymnomerus Bluethgen, 1938. Konowia 16: 286.
Type: ***Odynerus spiricornis*** Spinola. Orig. desig.
Revision: Bohart, 1939. Pan-Pacific Ent. 15: 76–84.

The nests are usually made in the ground but *O. erythrogaster* utilizes twigs of elderberry.

cinnabarinus R. Bohart. Utah, Calif., Ariz., Tex. U. Sonor. Zone.
Odynerus cinnabarinus R. Bohart, 1939. Pan-Pacific Ent. 15: 83. ♂ ♀.

dilectus Saussure. Alta., N. Y., Minn., Mont., Wyo., Colo., N. Mex., Calif., Wash., Oreg. Canadian Zone. Makes ground burrows topped by erect turrets fashioned of mud pellets.
Odynerus dilectus Saussure, 1870. Rev. Mag. Zool. (2) 22: 141. ♂.
Biology: Linsley and Michener, 1942. Pan-Pacific Ent. 18: 27.

erythrogaster R. Bohart. Calif.; Lower Calif. U. Sonor. and Transit. Zones.
Monobia bicolor Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 421. ♀. Preocc.
Odynerus erythrogaster R. Bohart, 1939. Pan-Pacific Ent. 15: 81. ♂ ♀. N. name for *bicolor*.

margaretellus Rohwer. Colo., Oreg., Wash.
Odynerus margaretellus Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 242. ♂ ♀.

Genus PSEUDEPIPONA Saussure

Pseudepipona Saussure, 1856. Études sur la famille des Vespides, v. 3, p. 309.
Type: ***Odynerus herrichii*** Saussure. Monob.

herrichii aldrichi (Fox). Alaska, Alta., Wash., Idaho, Mont., Wyo. Transit. and Canad. Zones. *Herrichii herrichii* (Sauss.) is Palaearctic.
Odynerus aldrichi Fox, 1892. Ent. News 3: 197. ♂ ♀.

Genus RYGCHIUM Spinola

Rygchium Spinola, 1806. Insecta Liguriae 1: 84.
Type: ***Vespa oculata*** Fabricius (=***Rygchium europaeum*** Spinola). Monob.
Rychium (!), and ***Rhynchium*** Billberg, 1820. Enum. Ins., p. 109. Emend.
Rynchium Sturm, 1829. Verz. Ins. Nuernberg, p. 12. Emend. of *Rygchium*.
Leionotus Saussure, 1853. Études sur la famille des Vespides, v. 1, p. 151. Preocc.
Type: ***Odynerus foraminatus*** Saussure. Present desig.
Rhygchium Saussure, 1853. Études sur la famille des Vespides, v. 1, p. xxxi. Emend. of *Rygchium*.

Lionotus Thomson, 1870. Opus. Ent. 2: 85. Emend. of *Leionotus*.
Euodynerus Dalla Torre, 1904. Gen. Ins. v. 19, p. 38.
Type: ***Vespa dantici*** Rossi. Desig. by Bluethgen, 1938.
Pachyodernus Cameron, 1908. Amer. Ent. Soc. Trans. 38: 199.
Type: ***Odynerus oslarensis*** Cameron. Monob.
Delphinaloides Moczar, 1937. Folia Ent. Hungarica 3: 15.
Type: ***Odynerus delphinalis*** Giraud. Present desig.
Pareuodynerus Bluethgen, 1938. Konowia 16: 278.
Type: ***Vespa notata*** Jurine. Orig. desig.
Allodynerus Bluethgen, 1938. Konowia 16: 280.
Type: ***Odynerus floricola*** Saussure. Orig. desig.
Revision: Bequaert, 1939. Ent. Soc. Amer. Ann. 32: 58–69.—Bohart, 1939. Brooklyn Ent. Soc. Bul. 34: 245–251.—Bohart, 1948. Brooklyn Ent. Soc. Bul. 43: 1–8.

Some species make original ground burrows, others nest in twigs, abandoned ground bee burrows, old *Sceliphron* nests, old *Polistes* cells, etc. A few make original mud nests on rocks. Caterpillars are used in provisioning.

alvarado alvarado (Saussure). Ariz., N. Mex.; Mexico.
Odynerus alvarado Saussure, 1857. Rev. Mag. Zool. (2) 9: 276.
Odynerus alvaradi Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 268. ♂ ♀. Emend.

alvarado safranum R. Bohart. Tex. (western).
Rygchium alvarado safranum R. Bohart, 1948. Brooklyn Ent. Soc. Bul. 43: 86. ♂ ♀.

annectens (Saussure). Va., Ga., Fla. The only nest described was of coarse sandy clay with 21 kidney-shaped cells surrounding a twig.
Odynerus annectens Saussure, 1870. Rev. Mag. Zool. (2) 22: 59. ♀.
Odynerus tempiferus var. ***macio*** Bequaert, 1936. U. S. Natl. Mus. Proc. 84: 81. ♂ ♀.
Biology: Clark and Sandhouse, 1936. U. S. Natl. Mus. Proc. 84: 89–95.

annulatum annulatum (Say). Ariz., Utah, Wyo. east to Tex., Kans., N. Dak. Also Alta. and north. Mexico. Makes ground burrows with a curved entrance tube. Cells diverge leaflike from the main tunnel and are provisioned with *Loxostege sticticalis* (L.).
Odynerus annulatus Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 348. ♂ ♀.
Odynerus bairdi Saussure, 1858. Rev. Mag. Zool. (1) 10: 169. ♂.
Odynerus verus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 237. ♂ ♀.
Odynerus ruficandis (!) Cameron, 1906. Amer. Ent. Soc. Trans. 32: 328. ♀.
Odynerus annulatus var. ***birkmanni*** Cameron, 1909. Pomona Col. Jour. Ent. 1: 124. ♂ ♀.
Odynerus annulatus var. ***oslari*** Cameron, 1909. Pomona Col. Jour. Ent. 1: 125.
Biology: Hungerford and Williams, 1912. Ent. News 23: 241–260.—Isely, 1914. Kans. Univ. Sci. Bul. (2) 8: 277–281.—Rau and Rau, 1918. Wasp Studies Afield, pp. 300–312.

annulatum arvense (Saussure). U. S. west to Tex., Okla., Kans., Nebr., S. Dak., N. Dak. Makes vertical ground burrows with one to six cells topped by a thick-walled erect or bent chimney about 1 inch long.
Odynerus arvensis Saussure, 1870. Rev. Mag. Zool. (2) 22: 59. ♂ ♀.
Odynerus firmus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 239. ♂ ♀.
Odynerus geminus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 240. ♀.
Odynerus blakeanus Cameron, 1909. Pomona Col. Jour. Ent. 1: 80. ♀.
Biology: Isely, 1914. Kans. Univ. Sci. Bul. (2) 8: 271–276.

annulatum evectum (Cresson). Southwest. U. S. including Tex., N. Mex., Ariz., Calif. (far south). Also Lower Calif. and north. Mexico.
Odynerus evectus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 235. ♀.

annulatum imperialis R. Bohart. Calif. (southern), Nev., Ariz., Utah (southwestern); Mexico.
Rygchium sulphureum imperialis R. Bohart, 1945. Ent. Soc. Wash. Proc. 47: 48. ♂ ♀.

annulatum sulphureum (Saussure). Calif., Oreg., Wash., Idaho, Nev., Utah, Ariz., B. C.
Odynerus sulphureus Saussure, 1858. Rev. Mag. Zool. (2) 10: 170. ♀.

barberi R. Bohart. Tex (Brownsville).
Rygchium barberi R. Bohart, 1945. Ent. Soc. Wash. Proc. 47: 56. ♀.

bidens (Saussure). Fla., Tenn., S. C., N. J., Minn.
Odynerus bidens Saussure, 1870. Rev. Mag. Zool. (2) 22: 58. ♂ ♀.

boscii albivestis (R. Bohart). Alta., Wash., Idaho, Oreg. (eastern), N. Dak., S. Dak., Wyo., Colo.
Odynerus boscii albivestis R. Bohart, 1939. Brooklyn Ent. Soc. Bul. 34: 249. ♂ ♀.

boscii auranum (Cameron). Calif., Oreg., Wash., Nev., Utah, Wyo., Colo. Nests in the ground, making clumps of five or six complete jug-shaped mud pots.
Odynerus auranus Cameron, 1906. Invertebrata Pacifica, v. 1, p. 148. ♂.

boscii azotopum (R. Bohart). Nev. (southern). Ariz., Calif. (southeastern); Lower Calif.
Odynerus boscii azotopus R. Bohart, 1939. Brooklyn Ent. Soc. Bul. 34: 248. ♂ ♀.

boscii boscii (Lepeletier). East. U. S. west to Mich. and Tex. Also Mexico.
Odynerus boscii Lepeletier, 1841. Hist. Nat. Ins. Hym. 2: 637. ♂.
Odynerus castigatus Saussure, 1853. Études sur la famille des Vespides, v. 1, p. 178.

delicatum (Cresson). Tex.
Odynerus delicatus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 236. ♀.

digiticornis R. Bohart. Ariz.; Lower Calif., Mexico.
Odynerus canaliculatus Viereck, 1906. Amer. Ent. Soc. Trans. 33: 392. ♂. Preocc.
Rygchium digiticornis R. Bohart, 1945. Ent. Soc. Wash. Proc. 47: 49. ♂. N. name.

discogaster (Bequaert). Calif., Oreg., Wash., Idaho, Nev., Ariz., Colo., Wyo., B. C. Makes mud nests in cracks between rocks, with about three cells in a clump.
Odynerus discogaster Bequaert, 1939. Ent. Soc. Amer. Ann. 32: 65. ♂ ♀.

dorsale balteatum Say. N. Y., Pa., N. J., Va., Ind., Ohio, Mich., Ill., Tex., Utah, Ont.
Rygchium balteatum Say, 1837. Boston Jour. Nat. Hist. 1: 383. ♀.
Monobia sylvatica Saussure, 1852. Études sur la famille des Vespides, v. 1, p. 95. ♀.

dorsale dorsale (Fabricius). U. S. west to S. Dak., Wyo., Colo., Utah, Ariz. Also Ont., Alta.; Mexico. Nests in small colonies, making vertical ground burrows usually with about three cells, one above the other, separated by clay partitions, and provisioned with skipper larvae. A heavy cocoon is formed.
Vespa dorsalis Fabricius, 1775. Systema Ent., p. 367.
Odynerus crypticus Say, 1823. West. Quart. Rptr. 2: 81.
Rygchium louisianum Saussure, 1852. Études sur la famille des Vespides, v. 1, p. 106. ♀.
Odynerus iturbide Saussure, 1857. Rev. Mag. Zool. (2) 9: 276.
Odynerus iturbidi Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 265. ♂.
Odynerus sulciventris Cameron, 1909. Pomona Col. Jour. Ent. 1: 130. ♀.
Biology: Isely, 1914. Kans. Univ. Sci. Bul. (2) 8: 281–294.—Rau and Rau, 1918. Wasp Studies Afield, pp. 312–331.—Turner, 1922. Biol. Bul. 42: 153–172. —Rau, 1931. Brooklyn Ent. Soc. Bul. 26: 5–6.—Vest, 1936. Utah Acad. Sci. Arts and Letters Proc. 13: 207–209.

dorsale stricklandi (Bequaert). Alta., Wyo., S. Dak., Nebr., Colo.
Odynerus dorsalis stricklandi Bequaert, 1940. Canad. Ent. 72: 55. ♂ ♀.

exoglyphum albovittatum (R. Bohart). Great Basin area including Wash., Oreg., Calif., Nev., Idaho., Wyo., Colo., N. Mex., Ont.
Odynerus exoglyphus albovittatus R. Bohart, 1939. Brooklyn Ent. Soc. Bul. 34: 251. ♂ ♀.

exoglyphum exoglyphum (R. Bohart). Calif., Oreg., Idaho, Utah, Wyo., Ariz. (northern).
Odynerus exoglyphus R. Bohart, 1939. Brooklyn Ent. Soc. Bul. 34: 250. ♂ ♀.

foraminatum aequale (Cameron). Southwest. U. S. including west. Tex., Colo., Utah, Ariz., N. Mex. Also scattered records from arid parts of Idaho, Wash., Oreg. Upper Sonoran Zone. Reported nesting in a *Sceliphron* mud nest.
Odynerus aequalis Cameron, 1906. Amer. Ent. Soc. Trans. 32: 329. ♀.
Odynerus sulfuritinctus Viereck, 1908. Amer. Ent. Soc. Trans. 33: 389. ♂ ♀.
Odynerus spectabiliformis Viereck, 1908. Amer. Ent. Soc. Trans. 33: 390. ♂ ♀.
Odynerus hidalgiformis Viereck 1908. Amer. Ent. Soc. Trans. 33: 391. ♀.
Odynerus spectabiformis (*!*) Viereck, 1908. Amer. Ent. Soc. Trans. 33: 391.
Odynerus deficiens Cameron, 1909. Pomona Col. Jour. Ent. 1: 126. ♂.
Odynerus jeromensis Cameron, 1909. Pomona Col. Jour. Ent. 1: 131. ♂.
Biology: Isely, 1914. Kans. Univ. Sci. Bul. (2) 8: 299.

foraminatum apopkense (Robertson). Fla. (central to southern).
Odynerus apopkensis Robertson, 1901. Amer. Ent. Soc. Trans. 27: 196. ♂.

foraminatum blandinum (Rohwer). Calif., Oreg., Idaho, Nev. Nests in old cells of *Pemphredon* and *Crabro* in twigs, the cells separated by double mud plugs, and the glazed cell wall serving as a cocoon.
Odynerus blandinus Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 236. ♂ ♀.

foraminatum fedoris R. Bohart. Tex.
Rygchium rugosum fedoris R. Bohart, 1945. Ent. Soc. Wash. Proc. 47: 46. ♂ ♀.

foraminatum foraminatum (Saussure). U. S. west to Rocky Mt. States. Also south. Canada. Nests in hollow twigs or burrows in logs. Uses double mud partitions and cells have remnants of a cocoon.
Odynerus foraminatus Saussure, 1853. Études sur la famille des Vespides, v. 1, p. 180. ♂ ♀.
Odynerus rugosus Saussure, 1853. Études sur la famille des Vespides, v. 1, p. 179. ♂.
Odynerus flavopictus Saussure, 1857. Rev. Mag. Zool. (2) 9: 276.
Odynerus santa-feae Cameron, 1906. Amer. Ent. Soc. Trans. 32: 330. ♀.
Odynerus sapellvensis (*!*) Cameron, 1906. Amer. Ent. Soc. Trans. 32: 331.
Odynerus sapelloensis Cameron, 1909. Pomona Col. Jour. Ent. 1: 125. ♂ ♀.
Biology: Rau and Rau, 1918. Wasp Studies Afield, pp. 334–340.—Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 398–400.—Rau, 1932. Ent. News 53: 119–121.—Rau, 1935. Brooklyn Ent. Soc. Bul. 30: 110–111.

foraminatum oregonense R. Bohart. Wash., Oreg., Nev., Utah, Wyo.
Rygchium foraminatum oregonense R. Bohart, 1948. Brooklyn Ent. Soc. Bul. 43: 82. ♂ ♀.

foraminatum parvirudis R. Bohart. Fla., S. C.
Rygchium foraminatum parvirudis R. Bohart, 1948. Brooklyn Ent. Soc. Bul. 4: 83. ♂ ♀.

fusum fusum (Cresson). Most of U. S., particularly more southern states; Mexico.
Odynerus fusus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 238. ♂ ♀.
Odynerus fuscus (*!*) "Cresson" Dalla Torre, 1904. Gen. Ins., v. 19, p. 45.

fusum rubrivestis R. Bohart. Fla., Ga.
Rygchium fusum rubrivestis R. Bohart, 1948. Brooklyn Ent. Soc. Bul. 4: 84. ♂ ♀.

fusum sanneovestis R. Bohart. Calif. (Owens Valley).
Rygchium fusum sanneovestis R. Bohart, 1948. Brooklyn Ent. Soc. Bul. 4: 84. ♂ ♀.

guerrero (Saussure). Tex. (western), N. Mex., Ariz.; Lower Calif., Mexico.
Odynerus guerrero Saussure, 1857. Rev. Mag. Zool. (2) 9: 277.
Odynerus guerreri Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 294. ♂ ♀. Emend.

hidalgo boreo-orientalis (Bequaert). Eastern seaboard states and Ohio, Mo., Kans. (eastern).
Odynerus hidalgo var. ***boreo-orientalis*** Bequaert, 1937. Pan-Pacific Ent. 12: 11. ♂ ♀.

hidalgo hidalgo (Saussure). U. S. east to Miss., north to Mo., Kans., Colo., Calif. Also Mexico. Reported nesting in an abandoned bee burrow in a cliff, in a *Sceliphron* mud nest, and in an old *Polistes* nest, lining a cell with mud.
Odynerus hidalgo Saussure, 1857. Rev. Mag. Zool. (2) 9: 275.
Odynerus ductus Cresson, 1875. Amer. Ent. Soc. Trans. 4: 238. ♂ ♀.
Odynerus hidalgi Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 252. ♂ ♀. Emend.
Biology: Isely, 1914. Kans. Univ. Sci. Bul. (2) 8: 296–299.—Bequaert, 1939. Ent. Soc. Amer. Ann. 32: 68–69.—Rau, 1943. Ent. Soc. Amer. Ann. 36: 533.

hidalgo viereckii (Cameron). Calif., Nev., Utah, Idaho, Wash., Colo. Uses cells in old *Sceliphron* mud nests, dividing each cell transversely in two.
Odynerus viereckii Cameron, 1909. Pomona Col. Jour. Ent. 1: 127. ♀.
Odynerus hidalgo var. ***boreo-occidentalis*** Bequaert, 1937. Pan-Pacific Ent. 12: 13. ♂ ♀.

leucomelas (Saussure). North. and west. U. S. and Canada south to mountains of Tenn., N. Mex. Not known from Calif., Ariz. Reared from sumac twig, the cells separated by mud partitions and with the linings incomplete, sometimes veil-like.
Odynerus leucomelas Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 255. ♂ ♀.

macswaini R. Bohart. Calif. Transit. Zone.
Rygchium macswaini R. Bohart, 1948. Brooklyn Ent. Soc. Bul. 43: 80. ♂ ♀.

megaera (Lepeletier). East. and south. U. S. north to N. Y., Ill., Pa., west to Tex. (eastern), Okla.
Odynerus megaera Lepeletier, 1841. Hist. Nat. Ins. Hym., v. 2, p. 636.

molestum (Saussure). Fla., Ga., N. C., Md., Ala., Tenn., Tex., Okla.
Odynerus molestus Saussure, 1870. Rev. Mag. Zool. (2) 22: 61. ♂.

morelios (Saussure). Ariz., N. Mex., Tex. (western); Mexico (temperate parts).
Odynerus morelios Saussure, 1857. Rev. Mag. Zool. (2) 9: 276.
Odynerus moreliae (*!*) Saussure, 1875. Smithsn. Inst. Misc. Collect 254: 186.
Odynerus morelii Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 299. ♂. Emend. of *morelios*.
Odynerus morelos (*!*) Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 299.
Ancistrocerus ? ***nigro-hirsutus*** Cameron, 1908. Amer. Ent. Soc. Trans. 34: 203. ♀.
Odynerus canamexicus Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 448. ♂.

orasum (Cameron). Tex., Okla., S. Dak., Ariz.
Odynerus orasus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 196. ♂.

oslarense (Cameron). Calif., Ariz.
Odynerus oslarensis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 199. ♀.

planitarsis R. Bohart. Maine, N. H., Mich., Wis., Minn., Colo., south. Canada (transcontinental).
Rygchium planitarsis R. Bohart, 1945. Ent. Soc. Wash. Proc. 47: 45. ♂ ♀.

pratense brumalis (Bequaert). Wash., Oreg., Calif. (northeastern), Idaho, Nev.
Odynerus pratensis var. ***brumalis*** Bequaert, 1936. U. S. Natl. Mus. Proc. 84: 86. ♂.

pratense pratense (Saussure). Southwest. U. S. east to Kans., Tex., west to Calif. Also Ont.; Mexico.
Odynerus pratensis Saussure, 1870. Rev. Mag. Zool. (2) 22: 61. ♂ ♀.
Odynerus clusinus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 234. ♂ ♀.
Odynerus egregius Viereck, 1906. Amer. Ent. Soc. Trans. 32: 197. ♂. Preocc.
Odynerus congressensis Cameron, 1909. Pomona Col. Jour. Ent. 1: 132. ♂ ♀.

provisoreum (Viereck). Ariz., Colo. (southern).
Odynerus provisoreus Viereck, 1908. Amer. Ent. Soc. Trans. 33: 396. ♂.

tempiferum birepandum R. Bohart. Nev. (Charleston Mountain Park).
Rygchium tempiferum birepandum R. Bohart, 1948. Brooklyn Ent. Soc. Bul. 43: 86. ♂.

tempiferum eldoradense (Rohwer). Northwest. U. S. including Calif., Oreg., Wash., Nev., Idaho, Mont., Wyo., Colo. Also B. C.
Odynerus eldoradensis Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 238. ♂.
Odynerus robustus Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 238. ♀. Preocc.

tempiferum pritchardi (Bequaert). Okla.
Odynerus annectens var. *pritchardi* Bequaert, 1939. Ent. Soc. Amer. Ann. 32: 63. ♀.

tempiferum subrubeum R. Bohart. Utah, Colo.
Rygchium tempiferum subrubeum R. Bohart, 1948. Brooklyn Ent. Soc. Bul. 43: 85. ♂ ♀.

tempiferum tempiferum (Viereck). Ariz., N. Mex., Colo. (southern).
Odynerus tempiferus Viereck, 1908. Amer. Ent. Soc. Trans. 33: 392. ♂.
Odynerus trichiosomus Cameron, 1909. Pomona Col. Jour. Ent. 1: 127. ♂.

turpe (Saussure). Fla., Ga., Tenn.
Odynerus turpis Saussure, 1870. Rev. Mag. Zool. (2) 22: 60. ♀.

Genus PACHODYNERUS Saussure

Pachodynerus Saussure, 1870. Rev. Mag. Zool. (2) 22: 56.
Type: *Odynerus californicus* Saussure. Present desig.

acuticarinatus (Cameron). Ariz., Tex.; Mexico, Lower Calif. Nests in old *Sceliphron* cells which are usually divided into two or three and completely lined with onion-skin-like membrane.
Odynerus acuticarinatus Cameron, 1909. Pomona Col. Jour. Ent. 1: 82. ♀.
Biology: Rau, 1940. Ent. Soc. Amer. Ann. 33: 592.

erynnis (Lepeletier). Fla., Ga., S. D., Ala., La.
Odynerus erynnis Lepeletier, 1841. Hist. Nat. Ins. Hym. 2: 645. ♀.
Odynerus erinnys "Lepel." (*!*) Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 245. ♂ ♀. Emend.
Odynerus errings (*!*) Isely, 1914. Kans. Univ. Sci. Bul. (2) 8: 240.
Biology: Ashmead, 1894. Psyche 7: 76–78.

nasidens (Latreille). Ariz. (southern), Tex. (Brownsville); Mexico, Central America, Antilles, Hawaii. Reported making mud nests under siding boards of a building, and provisioning with pyralid caterpillars. It also uses old *Sceliphron* nests.
Odynerus nasidens Latreille, 1812. *In* Humboldt and Bonpland, Voy. aux Reg. Equinox, Zool., v. 2, p. 112. ♀.
Odynerus auratus Saussure, 1858. Rev. Mag. Zool. (2) 10: 166.
Odynerus nasidens var. *minor* Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 233. ♂ ♀.
Odynerus clavilineatus Cameron, 1912. Timehri 2: 222. ♀. (not ♂).
Biology: Dow, 1932. Psyche 39: 12.—Rau, 1933. Jungle bees and wasps of Barro Colorado Island, pp. 169–170.

pulverulentus (Viereck). Calif. (southern), Ariz.; Lower Calif. Builds mud nests attached to leaves of growing plants.
Odynerus pulverulenta Viereck, 1908. Amer. Ent. Soc. Trans. 33: 406. ♀.

Genus ANCISTROCERUS Wesmael

Ancistrocerus Wesmael, 1836. Acad. Sci. Bruxelles Bul. 3: 45.
Type: *Vespa parietum* Linnaeus. Desig. by Girard, 1879.
Euancistrocerus Dalla Torre, 1904. Gen. Ins., v. 19, p. 36. N. name for *Ancistrocerus*.
Hypodernus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 199.
Type: (*Odynerus longipilosus* Cameron)=*Ancistrocerus catskill albophaleratus* (Saussure). Monob.
Revision: Bequaert: 1944. Ent. Amer. (n. s.) 23: 225–286.

Most species nest in twigs, *Sceliphron* nests, or in bee burrows; a few make original mud cells on rocks.

antilope allegrus Bequaert. Calif., Oreg., Colo.
Ancistrocerus antilope allegrus Bequaert, 1943. Ent. Amer. (n. s.) 23: 276. ♂ ♀.

antilope antilope (Panzer). South. Canada and U. S. except extreme southeast. Also southern Newfoundland and most of Palearctic Region. Nests in sumac twigs, making mud partitions but no cocoon. *Epargyreus tityrus* F. larvae are used in provisioning.
Vespa antilope Panzer, 1798. Faunae Ins. German. h. 53, pl. IX, with letterpress. ♀.
Odynerus capra Saussure, 1857. Rev. Mag. Zool. (2) 9: 273.
Ancistrocerus nearcticus Cameron, 1906. Amer. Ent. Soc. Trans. 32: 332. ♂.
Ancistrocerus lecontei Cameron, 1908. Amer. Ent. Soc. Trans. 34: 218. ♂ ♀.
Biology: Taylor, 1922. Psyche 29: 56–58.—Rau, 1928. Acad. Sci. St. Louis, Trans. 25:405.—Buckle, 1929. Canad. Ent. 51: 265–266.—Reinhard, 1929. Witchery of Wasps, pp. 86–91.

antilope navajo Bequaert. Ariz., Calif., N. Mex., Colo., Mont. U. Sonor. Zone.
Ancistrocerus navajo Bequaert, 1925. Amer. Ent. Soc. Trans. 51: 92. ♂ ♀.

antilope spenceri Bequaert. B. C.
Ancistrocerus antilope spenceri Bequaert, 1943. Ent. Amer. (n. s.) 23: 277. ♂ ♀.

birenimaculatus (Saussure). Eastern Seaboard States except Fla. Also Ind., Wis., Tex. Nests are of coarse hardened clay with 6 to 20 or more cells attached to twigs of low bushes. Cells are arranged somewhat radially and with thin silky lining.
Odynerus birenimaculatus Saussure, 1853. Études sur la famille des Vespides, v. 1, p. 135. ♀.
Biology: Packard, 1859. Guide Study Ins., p. 156.—Riley, 1880. Amer. Ent. 3: 154.—Strand, 1914. Ent. Mitt. 3: 116–118.—Viereck, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22, pl. IV, fig. 1.—Lutz, 1921. Field Book of Insects, pl. xc.

campestris (Saussure). U. S. east of Rocky Mts., Ont. Nests in old *Sceliphron* cells.
Odynerus campestris Saussure, 1853. Études sur la famille des Vespides, v. 1, p. 137. ♀.
Biology: Rau and Rau, 1916. Jour. Anim. Behavior 6: 43.—Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 15.

catskill albophaleratus (Saussure). Transcont. in Canad. and Transit. Zones. Also Alaska, Labrador. Southern limits are mountains of Ariz., N. Mex., N. C. Constructs mud cells lined with silk in old oak galls, hollow stems or rock crevices.
Odynerus albophaleratus Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 217. ♂ ♀.
Odynerus scudderi Cameron, 1908. Amer. Ent. Soc. Trans. 34: 196. ♀.
Odynerus longipilosus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 199. ♀.
Odynerus allophaleralus (!) Isely, 1914. Kans. Univ. Sci. Bul. (2) 8: 240.
Biology: Packard, 1869. Guide Study Ins., pp. 155–156.—Taylor, 1922. Psyche 29: 60–61.—Bequaert, 1925. Amer. Ent. Soc. Trans. 51: 104.—Bequaert, 1943. Ent. Amer. (n. s.) 23: 253.

catskill catskill (Saussure). Transcont. U. S. except Calif. Also southern Canada. Nests reported from hollow bamboo stalks, old *Sceliphron* nests, old ground bee burrows, nail holes, and keyholes of a house.
Odynerus daedalus Harris, 1835. *In* Hitchcock, Rpt. Geol. Mineral. Bot. Zool. Mass., p. 589. Nom. nud.
Odynerus catskill Saussure, 1853. Études sur la famille des Vespides, v. 1, p. 136. ♂ ♀.
Odynerus catskillensis Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 204. Emend.
Odynerus catskilli (!) Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 168.
Ancistrocerus sexcingulatus Ashmead, 1901. Psyche 9: 185. ♂.
Ancistrocerus gunnisonensis Cameron, 1906. Invertebrata Pacifica 1: 146. ♂.

Ancistrocerus gunnistonensis (!) Cameron, 1908. Amer. Ent. Soc. Trans. 34: 213.

Biology: Myers, 1927. Ent. Monthly Mag. 53: 190–196.—Rau, 1935. Brooklyn Ent. Soc. Bul. 30: 111.—Rau, 1945. Ent. Soc. Amer. Ann. 38: 88.

catskill halophilus Viereck. Rocky Mts. west to Pacific Coast. Nests in twigs. Also may use cells of *Colletes* in sandy ground, and old oak galls.

Ancistrocerus halophila Viereck, 1902. Acad. Nat. Sci. Phila. Proc. 54: 735. ♂.

Ancistrocerus trichionotus Cameron, 1905. Invertebrata Pacifica 1: 120. ♂.

Ancistrocerus ormsbyensis Cameron, 1905. Invertebrata Pacifica 1: 120. ♂.

Ancistrocerus fulvitarsis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 205. ♂ ♀.

Ancistrocerus tahoensis Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 235. ♀.

Biology: Bequaert, 1943. Ent. Amer. (n. s.) 23: 255.

durangoensis Cameron. Wyo., Colo., Utah, Ariz., N. Mex., Tex.

Ancistrocerus durangoensis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 216. ♂.

Ancistrocerus behrensi "Cr." Tucker, 1909. Kans. Acad. Sci. Trans. 22: 286. Nom. nud.

lineativentris fulvicarpus Cameron. Colo., N. Mex., Okla., Utah, Ariz.; Mexico. Upper Sonoran Zone.

Ancistrocerus fulvicarpus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 222. ♀.

lineativentris kamloopsensis Bequaert. B. C., Oreg., Wyo.

Ancistrocerus lineativentris kamloopsensis Bequaert, 1943. Ent. Amer. (n. s.) 23: 280. ♂ ♀.

lineativentris lineativentris Cameron. West. U. S. east to S. Dak., west. Kans. Mostly Transition Zone.

Ancistrocerus lineativentris Cameron, 1906. Invertebrata Pacifica 1: 146. ♂.

neocallosus discopictus Bequaert. Calif., Ariz.

Ancistrocerus neocallosus discopictus Bequaert, 1943. Ent. Amer. (n. s.) 23: 268. ♂ ♀.

neocallosus neocallosus Bequaert. West. U. S. east to west. Tex. and Kans. north to Colo., Utah, Oreg.

Ancistrocerus neocallosus Bequaert, 1943. Ent. Amer. (n. s.) 23: 264. ♂ ♀.

paracallosus Bequaert. S. Dak., Ariz.

Ancistrocerus paracallosus Bequaert, 1943. Ent. Amer. (n. s.) 23: 269. ♂ ♀.

parietum (Linnaeus). Northeast. U. S. and Canada (introduced). Also throughout Palaearctic Region. Reported from Europe as nesting in tree stumps, rock crevices, clay banks; in America in glass tubing with a series of one to four cells separated by mud plugs; hence probably nests in twigs.

Vespa parietum Linnaeus, 1758. Syst. Nat., ed. 10, v. 1, p. 572.

Ancistrocerus tardinotus "Bequaert" Taylor, 1922. Psyche 29: 49.

Biology: Taylor, 1922. Psyche 29: 49–55.

parredes (Saussure). Ariz. (Huachuca Mts.); Mexico, Central America to Panama.

Odynerus parredes Saussure, 1857. Rev. Mag. Zool. (2) 9: 273. ♀.

Odynerus parredesi Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 180. ♀. Emend.

spilogaster Cameron. West. U. S. east to Mont., Wyo., Utah, Ariz. (northern). Upper Sonoran and Transition Zones. Nests in twigs or old oak galls, making a complete mud cell.

Ancistrocerus spilogaster Cameron, 1905. Invertebrata Pacifica 1: 121. ♂.

Biology: Bequaert, 1943. Ent. Amer. (n. s.) 23: 248.

spinolae (Saussure). East. U. S. west to Ill., Mo. Has been reared from a *Sceliphron* mud nest.

Odynerus spinolae Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 216. ♀.

Biology: Rau, 1946. Brooklyn Ent. Soc. Bul. 41: 10–11.

tigris albolacteus Bequaert. Que. to B. C., Wash., Oreg., Idaho, Mont., S. Dak., Colo.

Ancistrocerus tigris albolacteus Bequaert, 1943. Ent. Amer. (n. s.) 23: 260. ♂ ♀.

tigris cytainus (Cameron). Calif., Oreg., Nev., Colo. Transition, Upper Sonoran and Lower Sonoran Zones.

Odynerus cytainus Cameron, 1906. Invertebrata Pacifica 1: 149. ♀.

tigris tigris (Saussure). Transcont. and widespread in U. S. and south. Canada. Reportedly bred from twigs, oak galls, gall nests on goldenrod.

Odynerus tigris Saussure, 1857. Rev. Mag. Zool. (2) 9: 273.

Odynerus cervus Saussure, 1858. Rev. Mag. Zool. (2) 10: 165.

Ancistrocerus quebecensis Cameron, 1906. Amer. Ent. Soc. Trans. 32: 333. ♂.

Odynerus canadaensis "Cameron" Meade Waldo, 1914. Ann. Mag. Nat. Hist. (8) 14: 405. Manuscript name, preocc.

Odynerus monteregalis Meade Waldo, 1914. Ann. Mag. Nat. Hist. (8) 14: 405. N. name for *canadaensis*.

Ancistrocerus howardi Cameron, 1909. Pomona Col. Jour. Ent. 1: 78. ♀.

Ancistrocerus tenuatus Tucker, 1909. Kans. Acad. Sci. Trans. 22: 286. ♀.

Biology: Rau and Rau, 1918. Wasp Studies Afield, pp. 344–345.—Champlain, 1922. Psyche 29: 99.—Bequaert, 1925. Amer. Ent. Soc. Trans. 51: 106.—Bequaert, 1943. Ent. Amer. (n. s.) 23: 260.—Boyce, 1946 (1945). Ent. Soc. Ontario, Ann. Rpt. 76, pp. 35–37.

tuberculocephalus sutterianus (Saussure). Calif., Oreg., Nev., Utah, B. C. U. Sonor. and Transit. Zones. Lines old *Sceliphron* cells with its own mud, re-making the cells or dividing each in two.

Odynerus sutterianus Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 186. ♂ ♀.

Ancistrocerus sutteranus (!) "Saussure" Cameron, 1905. Invertebrata Pacifica 1: 123.

Biology: Bequaert, 1943. Ent. Amer. (n. s.) 23: 285.

tuberculocephalus tuberculocephalus (Saussure). S. Dak., Wyo., Utah, Colo., Ariz., N. Mex., Tex. (western); Mexico (temperate). Reared from completely lined *Trypoxylon* cells in pipe organ cactus.

Odynerus tuberculocephalus Saussure, 1853 (Mar.). Études sur la famille des Vespides, v. 1, p. 139. ♂ ♀.

Odynerus tuberculiceps Saussure, 1853 (Dec.). Études sur la famille des Vespides, v. 1, (errata). Emend.

Odynerus nigrohirsutulus "Cameron" Bequaert, 1925. Amer. Ent. Soc. Trans. 51: 114.

Biology: Rau, 1940. Ent. Soc. Amer. Ann. 33: 593.

unifasciatus seminole Bequaert. Fla.

Ancistrocerus unifasciatus seminole Bequaert, 1943. Ent. Amer. (n. s.) 23: 282. ♀.

unifasciatus unifasciatus (Saussure). East. U. S. and Canada west to Tex., Kans., Iowa, Mich., Ont. Makes cells in old *Sceliphron* mud nests.

Odynerus unifasciatus Saussure, 1853. Études sur la famille des Vespides, v. 1, p. 138. ♀.

Biology: Rau and Rau, 1913. Ent. News 24: 396–397.

waldenii excavatus Bequaert. B. C., Wash., Oreg., Calif., Mont., Wyo., Colo., Ariz. Builds mud nests on rocks.

Ancistrocerus waldenii excavatus Bequaert, 1943. Ent. Amer. (n. s.) 23: 244. ♂ ♀.

Biology: Bequaert, 1943. Ent. Amer. (n. s.) 23: 246.

waldenii flavidulus Bequaert. Oreg., Calif. Builds mud nests on rocks.

Ancistrocerus waldenii flavidulus Bequaert, 1943. Ent. Amer. (n. s.) 23: 246. ♂ ♀.

Biology: Bequaert, 1943. Ent. Amer. (n. s.) 23: 247.

waldenii waldenii (Viereck). Alaska, Canada and U. S. south to Idaho, Wyo., N. Mex. (high mountains), Colo., S. Dak., Ill., Mich., Va. Builds free mud nests on walls or rocks.

Odynerus waldonii (!) Viereck, 1906. Ent. News 17: 304. ♀.

Odynerus waldenii Viereck, 1906. Ent. News 17: 350. Emend.
Biology: Bequaert, 1943. Ent. Amer. (n.s.) 23: 243.

Genus SYMMORPHUS Wesmael

Symmorphus Wesmael, 1836. Acad. Sci. Belg. Bul. 3: 45.
Type: ***Vespa elegans*** Wesmael. Desig. by Richards, 1935.
Protodynerus Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 186. N. name for *Symmorphus*.
Revision: Saussure, 1875. Smithsn. Inst. Misc. Collect, 254: 151–157.

Nests of American species have been found in hollow twigs and beetle burrows in wood.

albomarginatus (Saussure). N. Y., Que., B. C., Alta., Wyo.
Odynerus albomarginatus Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 195. ♀.
Symmorphus hornii Cameron, 1909. Pomona Col. Jour. Ent. 1: 123. ♀.

canadensis (Saussure). Transcont. in Canada and U. S. (not known from Fla., Tex., N. Mex., Ariz). Nests in wood-boring beetle burrows, separating the cells with clay plugs and provisioning with leaf-mining caterpillars.
Odynerus canadensis Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 196. ♀.
Odynerus debilis Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 155. ♀.
Symmorphus cogitans Cameron, 1906. Amer. Ent. Soc. Trans. 32: 325. ♀.
Biology: Reinhard, 1929. Witchery of Wasps, pp. 72–83.

cristatus cristatus (Saussure). Canada and north. U. S. south to Ill. and mountains of Colo., Utah, Ariz., Calif.
Odynerus cristatus Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 193. ♀.
Odynerus philadelphiae Saussure, 1857. Rev. Mag. Zool. (2) 9: 272.

cristatus nevadaensis (Cameron). Wash., Oreg., Nev., Calif. Nests in twigs with a double mud entrance plug. A heavy papery cocoon is formed by the larva.
Nortonia nevadaensis Cameron, 1905. Invertebrata Pacifica 1: 124. ♂.

meridionalis Viereck. B. C., Oreg., Calif., Utah, Colo., Wyo., N. Mex.
Symmorphus meridionalis Viereck, 1903. Amer. Ent. Soc. Trans. 29: 69. ♂.
Symmorphus trisulcatus Cameron, 1906. Amer. Ent. Soc. Trans. 32: 327. ♂.

projectus R. Bohart. Calif., Oreg., Wash., Idaho, Wyo., Mont., Ariz. Occurs in Calif. from sea level to 10,000 feet.
Symmorphus projectus R. Bohart, 1950. Biol. Soc. Wash. Proc. 63: 81. ♂ ♀.

walshianus (Saussure). U. S. west to Tex., Iowa.
Odynerus walshianus Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 152. ♀.

Genus HYPALASTOROIDES Saussure

Hypalastoroides Saussure, 1856. Études sur la famille des Vespides, v. 3, p. 328.
Type: ***Alastor brasiliensis*** Saussure. Monob.
Hypalasteroides (!) Zavattari, 1912. Arch. f. Naturgesch. 78A (4): 253.
Revision: Bohart, 1948. Calif. Acad. Sci. Proc. (4) 24: 322–323.

mexicanus (Saussure), n. comb. Tex. (southern); Mexico, Canal Zone.
Alastor mexicanus Saussure, 1870. Rev. Mag. Zool. (2) 22: 141. ♀.

slevini (R. Bohart), n. comb. Ariz. (Baboquivari Mts.); Lower Calif.
Alastoroides slevini R. Bohart, 1948. Calif. Acad. Sci. Proc. (4) 24: 323. ♂ ♀.

Genus LEPTOCHILUS Saussure

Leptochilus Saussure, 1853. Études sur la famille des Vespides, v. 1, p. 233.
Type: ***Pterochilus mauritanicus*** Lepeletier. Desig. by Ashmead, 1902.

Parodynerus Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 245.
Type: ***Odynerus exilis*** Herrich-Schaeffer. Present desig.
Microdynerus Thomson, 1874. Hym., Scand., v. 3, p. 58.
Type: ***Odynerus exilis*** Herrich-Schaeffer. Desig. by Jones, 1937.
Zendalia Robertson, 1928. Flowers and Insects, p. 12.
Type: ***Odynerus zendaloides*** Robertson (=***Leptochilus ornatus zendaloides*** (Robertson)). Present desig.
Pseudomicrodynerus Bluethgen, 1938. Konowia 16: 276.
Type: ***Odynerus parvulus*** Herrich-Schaeffer. Orig. desig.
Lionotulus Bluethgen, 1938. Konowia 16: 276.
Type: ***Odynerus alpestris*** Saussure. Orig. desig.
Paralionotulus Bluethgen, 1938. Konowia 16: 293.
Type: ***Leptochilus mervensis*** Radoszkovski. Orig. desig.
Pseudolionotulus Bluethgen, 1938. Deut. Ent. Ztschr., p. 146.
Type: ***Leptochilus mervensis*** Radoszkovski. Orig. desig.
Revision: Bohart, 1940. Pan-Pacific Ent. 16: 81–91.—Bohart, 1942. Pan-Pacific Ent. 18: 145–154.

Biology of only a few species is known. Most of these nest in twigs or hollow stems, but one is ground-nesting. Chrysomelid larvae are used in provisioning.

bellulus (Cresson). Tex., N. Mex., Ala.
Odynerus bellulus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 243. ♀.
Odynerus fedorensis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 200. ♂.

congressus (Viereck). N. Mex., Ariz., Calif., Nev.; Mexico. L. Sonor. Zone.
Odynerus congressus Viereck, 1908. Amer. Ent. Soc. Trans. 33: 405. ♀.

deformiceps (R. Bohart). Ariz. (southern).
Odynerus deformiceps R. Bohart, 1942. Pan-Pacific Ent. 18: 153. ♂ ♀.

electus (Cresson). Tex., Kans., Colo., N. Mex., Ariz., Nev., Calif.
Odynerus electus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 243. ♂.

erubescens (R. Bohart). Ariz., Nev., Calif., Oreg., Wash.
Odynerus erubescens R. Bohart, 1940. Pan-Pacific Ent. 16: 89. ♂ ♀.

infuscipennis (R. Bohart). Pacific Coast states. U. Sonor. and Transit. Zones. Makes vertical ground burrows.
Odynerus infuscipennis R. Bohart, 1942. Pan-Pacific Ent. 18: 146. ♂ ♀.

lissosomus (R. Bohart). Calif.
Odynerus lissosomus R. Bohart, 1940. Pan-Pacific Ent. 16: 88. ♂ ♀.

martini (R. Bohart). Tex., Colo., N. Mex.
Odynerus martini R. Bohart, 1942. Pan-Pacific Ent. 18: 149. ♂ ♀.

minutissimus (R. Bohart). Calif., Ariz., N. Mex. L. Sonor. Zone.
Odynerus minutissimus R. Bohart, 1940. Pan-Pacific Ent. 16: 87. ♂ ♀.

monolobus R. Bohart, n. name. Tex. (Lee Co.).
Odynerus heterospilus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 201. ♀. Preocc. by Cameron, 1907.

ornatus ornatus Saussure. East and midwest with westward extension through Kans., Colo., Utah, Nev.
Leptochilus ornatus Saussure, 1853. Études sur la famille des Vespides, v. 1, p. 233. ♀.
Odynerus republicanus Dalla Torre, 1889. Wien. Ent. Ztg. 8: 125. N. name.

ornatus zendaloides (Robertson). U. S. south to Va. and west to Ill. Makes papery-lined mud cocoons in pithy twigs, provisioned with chrysomelid larvae.
Odynerus zendaloides Robertson, 1901. Amer. Ent. Soc. Trans. 27: 197. ♂.
Biology: Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 400–404.

propodealis R. Bohart. Tex. (western), N. Mex., Ariz., Calif.; Mexico. Lower Sonoran Zone.
Leptochilus propodealis R. Bohart, 1948. Calif. Acad. Sci. Proc. (4) 24: 325. ♂ ♀.

rubicundulus (R. Bohart). Calif., Utah.
Odynerus rubicundulus R. Bohart, 1940. Pan-Pacific Ent. 16: 90. ♂ ♀.

rufinodus (Cresson). Calif., Ariz., Nev., Utah, Wyo., Colo., N. Mex., Kans., Tex. L. Sonor. to Transit. Zones. Nests in old twig burrows or hollow stems, which it lines and plugs with mud. Chrysomelid larvae are used in provisioning.
Odynerus rufinodus Cresson, 1868. Amer. Ent. Soc. Trans. 1: 381. ♀.

rufobasilaris (Ashmead). Calif., Wash. Transit. Zone. Nests in twigs, the cells divided by thin sand discs, and the twig entrance packed with rubble. A parasite is *Epistenia odyneri* Ashmead.
Odynerus rufobasilaris Ashmead, 1896. Psyche 7: 335. ♀.
Odynerus bruesi Cameron, 1909. Pomona Col. Jour. Ent. 1: 81. ♂.
Biology: Davidson, 1896. Psyche 7: 335–336.

russatus (R. Bohart). Calif., Ariz., N. Mex.; Mexico. L. Sonor. Zone.
Odynerus russatus R. Bohart, 1942. Pan-Pacific Ent. 18: 150. ♂ ♀.

russipes (R. Bohart). Calif., Nev. (western). U. Sonor. Zone.
Odynerus russipes R. Bohart, 1942. Pan-Pacific Ent. 18: 152. ♂ ♀.

tetralobus (R. Bohart). Calif.
Odynerus tetralobus R. Bohart, 1942. Pan-Pacific Ent. 18: 148. ♂ ♀.

tosquineti (Cameron). Calif., Ariz., Nev.
Odynerus tosquineti Cameron, 1909. Pomona Col. Jour. Ent. 1: 82. ♂.

trachysomus (R. Bohart). Ariz.; Mexico. U. Sonor. Zone.
Odynerus trachysomus R. Bohart, 1940. Pan-Pacific Ent. 16: 84. ♂ ♀.

tylocephalus monotylus (R. Bohart). Mass., N. Y., N. J., D. C., Va., N. C., S. C., Ga., Fla. (northern), Ala., Tex., Ariz., Calif.; Lower California.
Odynerus monotylus R. Bohart, 1940. Pan-Pacific Ent. 16: 86. ♂ ♀.

tylocephalus tylocephalus (R. Bohart). Fla.
Odynerus tylocephalus R. Bohart, 1940. Pan-Pacific Ent. 16: 85. ♂ ♀.

Genus STENODYNERUS Saussure

Revision: Bohart, 1943. Brooklyn Ent. Soc. Bul. 38: 6–11 (*Anormis* group).—Bohart, 1944. Pan-Pacific Ent. 20: 69–75 (*Fundatus* group).—Bohart, 1948. Florida Ent. 31: 71–80 (Fla. spp.).—Bohart, 1949. Ent. Soc. Wash. Proc. 51: 237–259 (Ariz. spp.).

Nesting is varied. Species of the anormis group nest in twigs; those of the fundatus group make original turret-topped ground burrows. Many of the *Parancistrocerus* use hollow twigs but a few occupy old *Sceliphron* nests. Caterpillars are used in provisioning.

Subgenus STENODYNERUS Saussure

Stenodynerus Saussure, 1863. Soc. Phys. Hist. Nat. Geneve Mem. 16: 228.
Type: ***Odynerus chinensis*** Saussure. Desig. by R. Bohart, 1939.
Mehelyella Moczár, 1937. Folia Ent. Hungarica 3: 16.
Type: ***Odynerus parvulus*** Lepeletier. Present desig.
Parodontodynerus Bluethgen, 1938. Konowia 16: 280.
Type: ***Eumenes ephippium*** Klug (=***Odynerus dubius*** Saussure). Orig. desig.
Odontodynerus Bluethgen, 1938. Konowia 16: 280.
Type: ***Odynerus orbitalis*** Herrich-Schaeffer. Orig. desig.
Nannodynerus Bluethgen, 1938. Konowia 16: 281.
Type: ***Lionotus teutonicus*** Bluethgen. Orig. desig.
Brachyodynerus Bluethgen, 1938. Deut. Ent. Ztschr. 1938, p. 450.
Type: ***Lionotus magnificus*** Morawitz. Orig. desig.

ammonia ammonia (Saussure). Fla.
Odynerus ammonia Saussure, 1853. Études sur la famille des Vespides, v. 1, p. 144. ♀.
Odynerus ammonis "Saussure" Smith, 1857. Cat. Hym. Ins. Brit. Mus., v. 5, p. 83. Emend.

ammonia histrionalis (Robertson). U. S. west to Tex., Okla., Kans.
Odynerus histrionalis Robertson, 1901. Amer. Ent. Soc. Trans. 27: 196. ♂ ♀.

ammonia paenevagus (Viereck). Tex., Kans., Colo.
Odynerus paenevagus Viereck, 1906. Amer. Ent. Soc. Trans. 32: 199. ♀.

anatropus R. Bohart. Calif., Oreg. (southern), Nev. Observed nesting in loose gravelly dirt on a 45° slope, the cells made of dirt stuck to a silk lining.
Stenodynerus anatropus R. Bohart, 1944. Pan-Pacific Ent. 20: 71. ♂ ♀.

anormiformis (Viereck). Calif. (southeastern), Ariz.
Odynerus anormiformis Viereck, 1908. Amer. Ent. Soc. Trans. 33: 407. ♀.

anormis (Say). Transcontinental and widespread in U. S. and Canada. Reared from cells in a pithy stem, the cells separated by mud partitions.
Eumenes anormis Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 346. ♂.
Odynerus oculatus Say, 1837. Boston Jour. Nat. Hist. 1: 385. ♂.
Odynerus abnormis Say, 1837. Boston Jour. Nat. Hist. 1: 387.
Odynerus persecutor Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 256. ♂.
Odynerus philetas Cameron, 1908. Amer. Ent. Soc. Trans. 34: 214. ♀.
Odynerus truncatus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 217. ♀. Preocc.
Odynerus approximatus Cameron, 1909. Pomona Col. Jour. Ent. 1: 79. ♀.
Biology: Peckham and Peckham, 1905. Wasps, Social and Solitary, p. 91.—Rau and Rau, 1918. Wasp Studies Afield, pp. 331–332.

apache R. Bohart. Ariz., N. Mex., Tex., Colo., Wyo., Utah, Nev., Oreg.; Mexico.
Stenodynerus (*Stenodynerus*) *apache* R. Bohart, 1949. Ent. Soc. Wash. Proc. 51: 244, fig. 1. ♂ ♀.

australis (Robertson). Fla.
Odynerus australis Robertson, 1901. Amer. Ent. Soc. Trans. 27: 197. ♂ ♀.

beameri R. Bohart. Fla.
Stenodynerus (*Stenodynerus*) *beameri* R. Bohart, 1948. Fla. Ent. 31: 75. ♂.

blandoides blandoides R. Bohart. West. U. S. (except Ariz.) east to N. Dak., Wyo., Colo., N. Mex.
Stenodynerus blandoides R. Bohart, 1943. Brooklyn Ent. Soc. Bul. 38: 9. ♂ ♀.

blandoides owensi R. Bohart. Calif., Nev.
Stenodynerus blandoides owensi R. Bohart, 1943. Brooklyn Ent. Soc. Bul. 38:10. ♂.

blandus blandus (Saussure). B. C., Wash., Idaho, Oreg., Calif.; Lower Calif. Reared from scantily silk-lined cells in a hollow stem, the cells separated by mud partitions.
Odynerus blandus Saussure, 1870. Rev. Mag. Zool. (2) 22: 105. ♀.
Odynerus mathewi Cameron, 1906. Entomologist 39: 268. ♂.
Odynerus giffardi Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 237. ♀.

blandus catalinae R. Bohart. Calif.
Stenodynerus blandus catalinae R. Bohart, 1943. Brooklyn Ent. Soc. Bul. 38: 10. ♂ ♀.

claremontensis (Cameron) Calif., Oreg., Nev. Observed making a four-celled vertical ground nest topped by a horizontal turret.
Odynerus claremontensis Cameron, 1905. Invertebrata Pacifica 1: 122. ♀.

clypeolatus clypeolatus (Dalla Torre). U. S. west to Tex., Kans., Minn.
Odynerus clypeatus Robertson, 1901. Amer. Ent. Soc. Trans. 27: 196. ♂ ♀. Preocc.
Odynerus clypeolatus Dalla Torre, 1904. Gen. Ins., v. 19, p. 42. N. name for *clypeatus*.
Odynerus bradleyi Robertson, 1925. Amer. Ent. Soc. Trans. 51: 82. N. name for *clypeatus*. Preocc.

clypeolatus floridanus (Robertson). Fla.
Odynerus floridanus Robertson, 1901. Amer. Ent. Soc. Trans. 27: 197. ♀.

cochisensis (Viereck). Calif., Ariz., Utah, Nev., Colo., Oreg., Wash. Nests in twigs.
Odynerus cochisensis Viereck, 1908. Amer. Ent. Soc. Trans. 33: 395. ♂ ♀.
Ancistrocerus pelias Cameron, 1908. Amer. Ent. Soc. Trans. 34: 208. ♀.
Ancistrocerus pilias (!) Cameron, 1909. Pomona Col. Jour. Ent. 1: 78.

foxensis R. Bohart. Ariz., N. Mex.
Stenodynerus foxensis R. Bohart, 1944. Pan-Pacific Ent. 20: 73. ♂ ♀.

fundatiformis fundatiformis (Robertson). Fla., Ga., S. C., Ala., Tex., Miss., Ark., Mo.
Odynerus fundatiformis Robertson, 1901. Amer. Ent. Soc. Trans. 27: 197. ♂.

fundatiformis gonosceles R. Bohart. U. S. west to Mississippi Valley (mostly central and northern states).
Stenodynerus fundatiformis gonosceles R. Bohart, 1944. Pan-Pacific Ent. 20: 74. ♂ ♀.

hoferi R. Bohart. Ariz. (southern).
Stenodynerus (Stenodynerus) hoferi R. Bohart, 1949. Ent. Soc. Wash. Proc. 51: 246, fig. 3. ♂ ♀.

kennicottianus antheus (Cameron). West. U. S. east to Wyo., Utah, N. Mex.
Ancistrocerus antheus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 210. ♂.
Ancistrocerus tityrus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 211. ♀.
Ancistrocerus satyrus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 211. ♂.

kennicottianus kennicottianus (Saussure). Transcont. in U. S. and Canada (except southwest. U. S.).
Odynerus kennicottianus Saussure, 1870. Rev. Mag. Zool. (2) 22: 104.
Odynerus kennicotianus (!) Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 305.

lineatifrons R. Bohart. Fla., S. C., N. C.
Stenodynerus (Stenodynerus) lineatifrons R. Bohart, 1948. Fla. Ent. 31: 76. ♂ ♀.

lissolobus R. Bohart. Ariz., N. Mex.; Mexico.
Stenodynerus (Stenodynerus) lissolobus R. Bohart, 1949. Ent. Soc. Wash. Proc. 51: 246, fig. 8. ♂ ♀.

lixovestis R. Bohart. Calif. (southern), Ariz., N. Mex., Tex. (western).
Stenodynerus (Stenodynerus) lixovestis R. Bohart, 1949. Ent. Soc. Wash. Proc. 51: 247, fig. 4. ♂ ♀.

lucidus (Rohwer). Que., Ont., B. C., Calif., Oreg., Wash., Idaho, Utah, Colo., Wyo., Mont., Minn.
Ancistrocerus lucidus Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 235. ♂.

microstictus (Viereck). U. S. east to Missouri River, north to S. Dak., Wyo., Calif. Also Mexico.
Odynerus microstictus Viereck, 1906. Amer. Ent. Soc. Trans. 32: 199. ♀.
Odynerus gulielmi Viereck, 1908. Amer. Ent. Soc. Trans. 33: 408. ♀.
Ancistrocerus phoenixensis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 225. ♂ ♀.
Odynerus pallidipictus Cameron, 1909. Pomona Col. Jour. Ent. 1: 83. ♀.

noticeps clarki R. Bohart. Calif.
Stenodynerus noticeps clarki R. Bohart, 1948. Calif. Acad. Sci. Proc. (4) 24: 331. ♂ ♀.

noticeps noticeps R. Bohart. Calif., Nev., Oreg., Wash., Utah, Idaho, Wyo., Colo.
Stenodynerus noticeps R. Bohart, 1948. Calif. Acad. Sci. Proc. (4) 24: 330. ♂ ♀.

ochrogonius R. Bohart. Ariz., N. Mex.
Stenodynerus ochrogonius R. Bohart, 1944. Pan-Pacific Ent. 20: 74. ♂ ♀.

oculeus illinoensis (Robertson). Ill., Minn., Mich., N. Y., D. C., Va., Fla. (northern), La., Tex.
Odynerus illinoensis Robertson, 1901. Amer. Ent. Soc. Trans. 27: 197. ♂ ♀.
Odynerus ventones Cameron, 1908. Amer. Ent. Soc. Trans. 34: 210. ♂.

oculeus oculeus (Robertson). Fla., Ga.
Odynerus oculeus Robertson, 1901. Amer. Ent. Soc. Trans. 27: 197. ♂ ♀.

painteri R. Bohart. Ariz. (southern).
Stenodynerus (*Stenodynerus*) *painteri* R. Bohart, 1949. Ent. Soc. Wash. Proc. 51: 248. ♂.

papagorum papagorum (Viereck). Tex., N. Mex., Colo., Ariz.; Mexico. Reported from Kansas nesting in vertical earthen banks in colonies of 10 to 30. Each nest contained 1 to 14 cells with the burrows topped by an openwork chimney of 2 inches or less. The cells contained cutworms.
Odynerus papagorum Viereck, 1908. Amer. Ent. Soc. Trans. 33: 394. ♂ ♀.
Biology: Isely, 1914. Kans. Univ. Sci. Bul. (2) 8: 256–271.

papagorum tinctifer R. Bohart. Wyo., Utah, Calif.
Stenodynerus papagorum tinctifer R. Bohart, 1944. Pan-Pacific Ent. 20: 71. ♂ ♀.

patagoniensis R. Bohart. Ariz. (southern).
Stenodynerus (*Stenodynerus*) *patagoniensis* R. Bohart, 1949. Ent. Soc. Wash. Proc. 51: 249, fig. 7. ♂.

percampanulatus (Viereck). Tex. (western), Okla., N. Mex., Ariz., Idaho, Wash. (eastern); Mexico.
Odynerus percampanulatus Viereck, 1906. Amer. Ent. Soc. Trans. 32: 200. ♂.
Odynerus blawus Rohwer, 1916. U. S. Natl. Mus. Proc. 49: 240. ♀.

pulvivestis R. Bohart. Ariz.; Mexico.
Stenodynerus (*Stenodynerus*) *pulvivestis* R. Bohart, 1949. Ent. Soc. Wash. Proc. 51: 249, fig. 6. ♂ ♀.

rudus R. Bohart. Ariz., Calif. (southern), Wash. (eastern), Wyo.
Stenodynerus (*Stenodynerus*) *rudus* R. Bohart, 1949. Ent. Soc. Wash. Proc. 51: 250. ♂ ♀.

sonoitensis R. Bohart. Ariz. (southern).
Stenodynerus (*Stenodynerus*) *sonoitensis* R. Bohart, 1949. Ent. Soc. Wash. Proc. 51: 251, fig. 9. ♂ ♀.

superpendentis R. Bohart. Ariz., Idaho, Tex. (western), Nev.
Stenodynerus (*Stenodynerus*) *superpendentis* R. Bohart, 1949. Ent. Soc. Wash. Proc. 51: 252, fig. 2. ♂ ♀.

taos (Cresson). S. Dak., Wyo., Colo., N. Mex., Ariz., Calif. (San Diego Co.); Mexico.
Odynerus toas (!) Cresson, 1868. Amer. Ent. Soc. Trans. 1: 381. ♂ ♀.
Odynerus taos Cresson, 1872 Amer. Ent. Soc. Trans. 4: 243. Emend.
Odynerus cressoni Cameron, 1908. Amer. Ent. Soc. Trans. 34: 198. ♂ ♀.

valliceps R. Bohart. U. S. east to Minn., Kans., Tex. (western). Also Mexico.
Stenodynerus valliceps R. Bohart, 1948. Calif. Acad. Sci. Proc. (4) 24: 329. ♂ ♀.

vanduzeei R. Bohart. Tex. (western), N. Mex., Ariz.; Lower Calif.
Stenodynerus vanduzeei R. Bohart, 1948. Calif. Acad. Sci. Proc. (4) 24: 327. ♂ ♀.

williamsi R. Bohart. Ariz., N. Mex.
Stenodynerus (*Stenodynerus*) *williamsi* R. Bohart, 1949. Ent. Soc. Wash. Proc. 51: 253, fig. 5. ♂ ♀.

xanthianus (Saussure). Calif. (southern); Lower Calif.
Odynerus xanthianus Saussure, 1870. Rev. Mag. Zool. (2) 22: 103.
Odynerus xantianus (!) Saussure, 1875. Smithson. Inst. Misc. Collect. 254: 204.

Subgenus PARANCISTROCERUS Bequaert

Parancistrocerus Bequaert, 1925. Amer. Ent. Soc. Trans. 51: 64.
Type: *Odynerus fulvipes* Saussure. Orig. desig.

austrinus (Cresson). Tex., Okla., Kans., N. Mex.; Mexico.
Odynerus austrinus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 243. ♂ ♀.
Odynerus excentralis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 198. ♀.

bicornis bicornis (Robertson). Fla.
Odynerus bicornis Robertson, 1901. Amer. Ent. Soc. Trans. 27: 196. ♂ ♀.

bicornis ceanothi (Rohwer). Pa., Mich., N. Y., Ark., Va., S. C.
Ancistrocerus ceanothi Rohwer, 1912. U. S. Natl. Mus. Proc. 51: 449. ♂ ♀.

bicornis cushmani R. Bohart. Tex. (western), N. Mex., Ariz. (southern).
Stenodynerus (Parancistrocerus) bicornis cushmani R. Bohart, 1949. Ent. Soc. Wash. Proc. 51: 253. ♂ ♀.

chiricahuae R. Bohart. Ariz.; Mexico.
Stenodynerus (Parancistrocerus) chiricahuae R. Bohart, 1949. Ent. Soc. Wash. Proc. 51: 254. ♂ ♀.

colon colon (Cresson). U. S. except Pacific Coast states, Ont.
Odynerus colon Cresson, 1872. Amer. Ent. Soc. Trans. 4: 241. ♂ ♀.
Odynerus leionotus Viereck, 1906. Amer. Ent. Soc. Trans. 32: 198. ♀.

colon yumus (Viereck). Tex. (western), N. Mex., Ariz., Colo.
Odynerus yumus Viereck, 1908. Amer. Ent. Soc. Trans. 33: 397. ♂.

coronado R. Bohart. Ariz., N. Mex., Utah, Colo., Tex. (western).
Stenodynerus (Parancistrocerus) coronado R. Bohart, 1949. Ent. Soc. Wash. Proc. 51: 255. ♂ ♀.

declivatus R. Bohart. Calif. (southern); Lower Calif.
Stenodynerus declivatus R. Bohart, 1948. Calif. Acad. Sci. Proc. (4) 24: 331. ♂ ♀.

fulvipes fulvipes (Saussure). U. S. west to Tex., Okla., Kans., Ill., Mich. Reported using old *Sceliphron* mud nests, constructing original burrows in a clay bank, and using old bee burrows in a clay bank.
Odynerus flavipes Lepeletier, 1841. Hist. Nat. Ins. Hym., v. 2, p. 659. ♂. Preocc.
Odynerus fulvipes Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 205. ♂ ♀. N. name.
Biology: Rau and Rau, 1918. Wasp Studies Afield, pp. 340–344.—Rau, 1935. Brooklyn Ent. Soc. Bul. 30: 112.

fulvipes rufovestis R. Bohart. Fla., S. C.
Stenodynerus (Parancistrocerus) fulvipes rufovestis R. Bohart, 1948. Fla. Ent. 31: 78. ♂ ♀.

histrio (Lepeletier). Fla., Ga., Va., N. C., D. C., La.
Odynerus histrio Lepeletier, 1841. Hist. Nat. Ins. Hym., v. 2, p. 638. ♂.
Eumenes paccata "Bosc" Lepeletier, 1841. Hist. Nat. Ins. Hym., v. 2, p. 639.

lacunus (Fox). Tex., N. Mex., Ariz., Calif. (southern); Mexico.
Odynerus lacunus Fox, 1894. Calif. Acad. Sci. Proc. (2) 4: 111.

minimoferus R. Bohart. Calif., Ariz., Nev., Utah, Oreg., Wyo., Tex.
Stenodynerus (Parancistrocerus) minimoferus R. Bohart, 1949. Ent. Soc. Wash. Proc. 51: 256. ♂ ♀.

pedestris bifurcus (Robertson). Fla., Ga.
Odynerus bifurcus Robertson, 1901. Amer. Ent. Soc. Trans. 27: 196. ♂ ♀.

pedestris pedestris (Saussure). U. S. west to N. Mex., Kans., Minn. Also Que. Nests in hollow twigs, separating cells with thin mud partitions, and making vestiges of a cocoon.
Odynerus fuscipes Saussure, 1853. Études sur la famille des Vespides, v. 1, p. 143. ♂. Preocc.
Odynerus pedestris Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 206. N. name.
Odynerus conformis Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 219.
Odynerus proximus Saussure, 1857. Rev. Mag. Zool. (2) 9: 274. ♂.
Ancistrocerus parvispinosus Cameron, 1906. Amer. Ent. Soc. Trans. 32: 332. ♀.
Biology: Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 389–395.—Rau, 1935. Brooklyn Ent. Soc. Bul. 30: 110.

pensylvanicus (Saussure). Canada and north. U. S. south to Oreg., Colo., Kans., Mo., N. C. Also Tex. Reported nesting in twigs, the cells separated by mud partitions and with vestiges of a cocoon.
Odynerus pensylvanicus Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 257. ♀.
Odynerus huro Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 297. ♀.
Odynerus mohicanus Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 297. ♀.
Odynerus texensis Saussure, 1871. Rev. Mag. Zool. (2) 22: 104.
Odynerus pennsylvanicus Saussure, 1875. Smithsn. Inst. Misc. Collect. 254: 327. ♂ ♀. Emend.
Biology: Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 395–398.—Rau, 1935. Brooklyn Ent. Soc. Bul. 30: 110.

perennis anacardivora (Rohwer). Fla., Ga., N. C., La.
Odynerus anacardivora Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 241. ♀.

perennis perennis (Saussure). U. S. west to Mississippi River; also Kans., Mo. Nests in twigs, the cells separated by mud partitions.
Odynerus perennis Saussure, 1857. Rev. Mag. Zool. (2) 9: 277.

polingi R. Bohart. Ariz. (southern), N. Mex.
Stenodynerus (*Parancistrocerus*) *polingi* R. Bohart, 1949. Ent. Soc. Wash. Proc. 51: 257. ♂ ♀.

rectangulis (Viereck). Ariz., N. Mex.; Mexico.
Odynerus rectangulis Viereck, 1908. Amer. Ent. Soc. Trans. 33: 393. ♂ ♀.

saecularis rufulus R. Bohart. Fla. Reared from oak galls on scrub oak.
Stenodynerus (*Parancistrocerus*) *saecularis rufulus* R. Bohart, 1948. Fla. Ent. 31: 79. ♂ ♀.

saecularis saecularis (Saussure). Tex., Ga., N. C., Va., D. C., Md., N. J.
Odynerus salcularis (!) Saussure, 1852. Études sur la famille des Vespides, v. 1, p. 122.
Odynerus saecularis Saussure, 1853. Études sur la famille des Vespides, v. 1, p. 142, as *secularis*, p. 145.
Ancistrocerus leensis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 215. ♂.

toltecus (Saussure). Wash., Oreg., Idaho, Utah. Nev., Calif., Ariz., N. Mex., Tex. (western); Mexico.
Odynerus toltecus Saussure, 1857. Rev. Mag. Zool. (2) 9: 277.
Odynerus arizonaensis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 208. ♀.

vagus slossonae R. Bohart. Fla.
Stenodynerus vagus slossonae R. Bohart, 1948. Fla. Ent. 31: 77. ♀.

vagus vagus (Saussure). U. S. west to Rocky Mts. Also B. C.
Odynerus vagus Saussure, 1857. Rev. Mag. Zool. (2) 9: 277.
Odynerus collega Saussure, 1870. Rev. Mag. Zool. (2) 22: 61. ♂.
Odynerus delodontus Viereck, 1906. Amer. Ent. Soc. Trans. 32: 196. ♀.

Genus DOLICHODYNERUS R. Bohart

Dolichodynerus R. Bohart, 1939. Pan-Pacific Ent. 15: 101.
Type: *Odynerus turgiceps* R. Bohart. Orig. desig.

tanynotus (Cameron). Ariz., N. Mex., Tex.
Odynerus tanynotus Cameron, 1909. Pomona Col. Jour. Ent. 1: 133. ♀.

turgiceps (R. Bohart). Calif., Ariz., N. Mex.
Odynerus turgiceps R. Bohart, 1939. Pan-Pacific Ent. 15: 102. ♂ ♀.

vandykei R. Bohart. Ariz.
Dolichodynerus vandykei Bohart, 1950. Biol. Soc. Wash. Proc. 63: 80. ♂ ♀.

Genus MARICOPODYNERUS Viereck

Maricopodynerus Viereck, 1908. Amer. Ent. Soc. Trans. 33: 397.
Type: *Odynerus maricoporum* Viereck. Orig. desig.
Revision: R. Bohart, 1950. Brooklyn Ent. Soc. Bul. 45: 17–25.

chisosensis R. Bohart. Tex. (western).
Maricopodynerus chisosensis R. Bohart, 1950. Brooklyn Ent. Soc. Bul 45: 20. ♂ ♀.

decorabilis R. Bohart. Oreg., Nev., Calif.
Maricopodynerus decorabilis R. Bohart, 1950. Brooklyn Ent. Soc. Bul. 45: 22. ♂ ♀.

lissus R. Bohart. Ariz., Calif. (southeastern).
Maricopodynerus lissus R. Bohart, 1950. Brooklyn Ent. Soc. Bul. 45: 23. ♂ ♀.

maricoporum (Viereck). Calif., Nev., Ariz., N. Mex.
Odynerus maricoporum Viereck, 1908. Amer. Ent. Soc. Trans. 33: 397. ♂.
Odynerus chelonogastrus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 202. ♀.

rudiceps R. Bohart. Nev., Calif., Idaho, Colo., Mont., Oreg., Wash., Utah.
Maricopodynerus rudiceps R. Bohart, 1950. Brooklyn Ent. Soc. Bul. 45: 21. ♂ ♀.

sericifrons R. Bohart. Calif. (southern).
Maricopodynerus sericifrons R. Bohart, 1950. Brooklyn Ent. Soc. Bul. 45: 19. ♂ ♀.

shannoni R. Bohart. Wash.
Maricopodynerus shannoni R. Bohart, 1950. Brooklyn Ent. Soc. Bul. 45: 24. ♂.

Genus LEPTOCHILOIDES R. Bohart

Leptochiloides R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 165.
Type: *Leptochiloides utahensis* R. Bohart. Orig. desig.

arizonae R. Bohart. Ariz.
Leptochiloides arizonae R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 166. ♂.

brevicornis R. Bohart. Calif. (Los Angeles Co.).
Leptochiloides brevicornis R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 167. ♂.

utahensis R. Bohart. Utah (Bellevue, Washington Co.).
Leptochiloides utahensis R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 166. ♀.

Genus PTEROCHEILUS Klug

Revision: R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 162–208.

The species are all ground nesting so far as is known and carry earth from their nests in "baskets" formed by the long, fringed labial palpi. Caterpillars are used in provisioning.

Subgenus PTEROCHEILUS Klug

Pterocheilus Klug, 1805. Beitr. z. Naturkunde, v. 1, p. 143.
Type: *Vespa phalerata* Panzer. Desig. by Blanchard, 1840.
Pterochilus (!) Illiger, 1807. Mag. Insektenk. 6: 196.

No species known in North America.

Subgenus MEGAPTEROCHEILUS R. Bohart

Megapterocheilus R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 173.
Type: *Pterochilus mirandus* Cresson. Orig. desig.

arizonicus R. Bohart. Calif., Nev., Ariz., N. Mex. L. Sonor. Zone desert species.
Pterochelus arizonicus R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 174. ♂ ♀.

biplagiatus Cresson. Calif., Wash. U. Sonor. and Transit. Zones. Usually collected at *Phacelia*.
Pterochilus biplagiatus Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xix. ♀ (♂ misdet.).

crispocornis R. Bohart. Calif. (Owens Valley and southern deserts). L. Sonor. Zone.
Pterocheilus crispocornis R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 178. ♂ ♀.

decorus decorus Cresson. Calif., Ariz., Nev., Colo., Wyo., Oreg., Transit. and Canad. Zones.
Pterochilus decorus Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xviii. ♀.
Pterochilus zonatus Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xviii. ♂.
Odynerus cosmiogaster Cameron, 1905. Invertebrata Pacifica 1: 123. ♂.

decorus leucotaenius Rohwer. Alta., Wyo., Wash., Oreg., Calif., Nev.. Transit. and Canad. Zones.
Pterochilus leucotaenius Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 554. ♀.

denticulatus (Saussure). Ariz. (Nogales), N. Mex.; Mexico.
Leptochilus denticulatus Saussure, 1855. Rev. Mag. Zool. (2) 7: 373. ♂.
Pterochilus lewisii Cresson, 1868. Amer. Ent. Soc. Trans. 1: 382. ♀.
Pterochilus aztecus Saussure, 1870. Rev. Mag. Zool. (2) 22: 141. ♀.

linsleyi R. Bohart. Tex. (western).
Pterocheilus linsleyi R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 176. ♂ ♀.

mirandus Cresson. Nev., Calif. U. Sonor. and Transit. Zones.
Pterochilus mirandus Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xvii. ♂ ♀.
Pterochilus luteicollis Cameron, 1909. Pomona Col. Jour. Ent. 1: 84 ♀.

nigricaudus R. Bohart. Calif., Ariz.
Pterocheilus nigricaudus R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 181. ♀.
Pterocheilus inyoensis R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 186. ♂.

oregonensis R. Bohart. Oreg. (Lakeview, Lake Co.).
Pterocheilus oregonensis R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 182. ♀.

pedicellatus R. Bohart. Ariz., Calif., N. Mex., Colo., Utah, Idaho; Mexico. U. Sonor. Zone.
Pterocheilus pedicellatus R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 188. ♂ ♀.

quinquefasciatus Say. West. U. S. (except Calif. and Ariz.) east to Tex., Okla., Kans., Nebr., S. Dak., Minn. Also Alta. and B. C. Isely reports a nest in sandy soil with an obliquely vertical burrow dividing into two horizontal galleries ending in one to three cells. The nest was provisioned with cutworms.
Pterocheilus quinquefasciatus Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 347. ♀.
Biology: Isely, 1914. Kans. Univ. Sci. Bul. (2) 8: 294–296.

texanus Cresson. Tex., Fla., N. C.
Pterochilus texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 244. ♂ ♀.

trichogaster R. Bohart. Calif. Statewide in Transit. Zone. Ground nests in sandy soil occur in colonies.
Pterocheilus trichogaster R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 183. ♂ ♀.

Subgenus ONCHOPTEROCHEILUS R. Bohart

Onchopterocheilus R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 191.
Type: ***Pterochilus comptus*** Cresson. Orig. desig.

bakeri Cameron. Calif. Transit. Zone from San Diego Co. to Butte Co.
Pterochilus bakeri Cameron, 1909. Pomona Col. Jour. Ent. 1: 123. ♀.

comptus Cresson. Calif. L. Sonor., U. Sonor., and Transit. Zones.
Pterochilus comptus Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xviii. ♀.

hirsutipennis R. Bohart. Calif. (southern deserts). L. Sonor. Zone.
Pterocheilus hirsutipennis R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 200. ♂ ♀.

laticeps Cresson. Tex., Ariz., Calif. (Owens Valley and southern deserts); Mexico. L. Sonor. Zone.
Pterochilus laticeps Cresson, 1872. Amer. Ent. Soc. Trans. 4: 244. ♀.
Odynerus leucospilus Cameron, 1909. Pomona Col. Jour. Ent. 1: 133. ♀. Preocc.

micheneri R. Bohart. Calif., Utah.
Pterocheilus micheneri R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 196. ♂ ♀.

panamintensis R. Bohart. Calif. (Panamint Mts. of Inyo Co.).
Pterocheilus panamintensis R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 192. ♂.

pimorum (Viereck). Calif. (southern deserts), Ariz.; Lower Calif. L. Sonor. Zone.
Odynerus pimorum Viereck, 1908. Amer. Ent. Soc. Trans. 33: 405. ♂.

timberlakei R. Bohart. Calif. U. Sonor. and Transit. Zones. north to Eldorado Co.
Pterocheilus timberlakei R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 194. ♂ ♀

trachysomus R. Bohart. Calif. L. Sonor. Zone of southern deserts and Owens Valley.
Pterocheilus trachysomus R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 193. ♂ (♀ misdet.)

Subgenus MICROPTEROCHEILUS R. Bohart

Micropterocheilus R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 201.
Type: *Pterocheilus desertorum* R. Bohart. Orig. desig.

acuceps R. Bohart. Calif., Wyo.
Pterocheilus acuceps R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 208. ♀.

cyathopus R. Bohart. Calif. Transit. Zone.
Pterocheilus flavobalteatus cyathopus R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 206. ♂ ♀.

desertorum R. Bohart. Calif. (Owens Valley), Wash. (eastern). L. Sonor. Zone.
Pterocheilus desertorum R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 202. ♂ ♀.

diversicolor Rohwer. Calif. (southern). Desert species of L. Sonor. Zone.
Pterochilus diversicolor Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 554. ♀.

flavobalteatus Cameron. Calif., Nev. Transit. Zone.
Pterochilus flavobalteatus Cameron, 1909. Pomona Col. Jour. Ent. 1: 84. ♀.

morrisoni Cresson. Calif., Oreg., Utah, Wyo., Nev., Ariz. Transit. to Canad. and Huds. Zones.
Pterochilus morrisoni Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xix. ♂ ♀.

provancheri (Huard). Calif., Nev., Oreg., Utah. Transit. to Canad. and Huds. Zones.
Odynerus truncatus Provancher, 1895. Nat. Canad. 22: 158. ♂ ♀. Preocc.
Odynerus provancheri Huard, 1897. Nat. Canad. 24: 25. N. name.
Leptochilus cratocerus Cameron, 1909. Pomona Col. Jour. Ent. 1: 122. ♂.

pruinosus Cameron. Ariz. Transit. Zone.
Pterochilus pruinosus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 227. ♀.

seneconis Rohwer. Colo., Wyo., Mont., Idaho. Canad. Zone.
Pterochilus seneconis Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 553. ♂ ♀.

tricoloratus R. Bohart. Ariz. (Maricopa Co.).
Pterocheilus tricoloratus R. Bohart, 1940. Ent. Soc. Amer. Ann. 33: 207. ♀.

Nomina Nuda

Leionotus scrophulariae Robertson, 1928. Flowers and Insects, p. 11.
Leionotus ziziae Robertson, 1928. Flowers and Insects, p. 12.
Odynerus vegasensis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 210.

Nomina Dubia

Vespa carolina Linnaeus, 1767. Syst. Nat., ed. 12, v. 1 (pt. 2), p. 948.

Odynerus acanthopus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 223. ♀.

Odynerus adiabatus Saussure, 1853. Études sur la famille des Vespides, v. 1, p. 138. ♂.

Odynerus bradleyi Cameron, 1909. Pomona Col. Jour. Ent. 1: 81. ♀.

Odynerus crassispinus Cameron, 1909. Pomona Col. Jour. Ent. 1: 130. ♂.

Odynerus crotchi Cameron, 1908. Amer. Ent. Soc. Trans. 34: 197. ♂ ♀.

Odynerus edwardsii Cameron, 1908. Amer. Ent. Soc. Trans. 34: 207. ♀.

Odynerus harringtoni Cameron, 1906. Amer. Ent. Soc. Trans. 32: 327. ♀.

Odynerus macfarlandi Cameron, 1909. Pomona Col. Jour. Ent. 1: 79. ♀.

Odynerus mediatus Cameron, 1909. Pomona Col. Jour. Ent. 1: 79. ♀.

Odynerus minnesotaensis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 231. ♂.

Odynerus pertinax Saussure, 1855. Études sur la famille des Vespides, v. 3, p. 216. ♂.

Odynerus pictiventris Cameron, 1906. Amer. Ent. Soc. Trans. 32: 331. ♀.

Odynerus pulchrinervis Cameron, 1906. Amer. Ent. Soc. Trans. 32: 328. ♀.

Odynerus visellus Cameron, 1906. Invertebrata Pacifica 1: 147. ♂.

Ancistrocerus bakerianus Cameron, 1908. Amer. Ent. Soc. Trans. 34: 220. ♂.

Ancistrocerus cockerelli Cameron, 1908. Amer. Ent. Soc. Trans. 34: 220. ♀.

Ancistrocerus lindemanni Cameron, 1908. Amer. Ent. Soc. Trans. 34: 219. ♂.

Ancistrocerus rivularis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 215. ♂.

Ancistrocerus sayi Cameron, 1908. Amer. Ent. Soc. Trans. 34: 221. ♂.

Ancistrocerus simulator Cameron, 1908. Amer. Ent. Soc. Trans. 34: 222. ♀.

Family POMPILIDAE[31] [32]

The taxonomy of the family has been confused, and the literature is consequently hard to use. The classification in many revisionary papers is so different from that presented here that reference to the original descriptions is usually better than consultation of the revisionary literature. The general papers below will often be helpful.

Revisions: Banks, 1911. N. Y. Ent. Soc. Jour. 19: 219–237 (eastern species).—Banks, 1919. Harvard Univ., Mus. Comp. Zool. Bul. 63: 229–248 (western species).—Brimley, 1936. Elisha Mitchell Sci. Soc. Jour. 52: 107–131 (N. C. species).—Dreisbach, 1949. Mich. Acad. Sci., Arts, and Letters Papers 33: 63–71 (American genera).

Members of this family provision their nests with spiders. The nests are usually in the ground, but many of the Macromerini construct mud cells in protected places and at least some species of *Dipogon* nest in holes in wood. *Ceropales* is a social parasite on other members of the family, ovipositing on their prey before it is placed in the nest.

[31]By Howard Evans (Pompilinae), P. D. Hurd, Jr. (*Pepsis*), and Henry Townes (other parts of the family).

[32]There is division of opinion among the contributors to this catalogue regarding the proper name for the family. Evans and Hurd prefer Pompilidae. Townes prefers Psammocharidae.

Subfamily PEPSINAE[33]

Tribe PEPSINI

Genus CHIRODAMUS Haliday

Chirodamus Haliday, 1837. Linn. Soc. London Trans. (3) 17: 326.
Type: ***Chirodamus kingii*** Haliday. Monob.
Calopompilus Ashmead, 1900. Canad. Ent. 32: 188. N. syn.
Type: ***Pompilus maculipennis*** Smith. Orig. desig.
Dinocnemis Banks, 1925. Harvard Univ., Mus. Comp. Zool. Bul. 67: 336. N. syn.
Type: ***Pompilus fortis*** Cresson. Desig. by Bradley, 1944.
Onochares Banks, 1933. Psyche 40: 9. N. syn.
Type: (***Onochares brazoria*** Banks)=[***Priocnemis***] ***heiligbrodtii*** (Cresson).
?***Trichocurgus*** Haupt, 1937. Ztschr. f. Naturw. 91: 127, 134. N. syn.
Type: ***Pompilus monachus*** Smith. Orig. desig.
Derochilus Banks, 1941. Canad. Ent. 73: 119, 120. N. syn.
Type: ***Pompilus validus*** Cresson. Orig. desig.
Reedimia Banks, 1946. Harvard Univ., Mus. Compar. Zool. Bul. 96: 482. N. syn.
Type: ***Agenia hirsutula*** Spinola. Orig. desig.

albopilosus (Cresson), n. comb. N. Y. to Ga. in Transit. Zone.
Pompilus (***Agenia***) ***albopilosus*** Cresson, 1867. Amer. Ent. Soc. Trans. 1: 125. ♂.
Priocnemis fortella Banks, 1915. Canad. Ent. 47: 401. ♀.
Pseudagenia najacra Brimley, 1928. Elisha Mitchell Sci. Soc. Jour. 43: 203. ♂. N. syn.
Taxonomy: Bradley, 1944. Canad. Ent. 76: 132.

deceptus (Banks), n. comb. Tex. (Lee Co.).
Priocnemis decepta Banks, 1926. Canad. Ent. 58: 201. ♀.

feroculis (Banks), n. comb. Tex., Va.
Pseudagenia feroculis Banks, 1911. N. Y. Ent. Soc. Jour. 19: 232. ♂.

fortis (Cresson), n. comb. Pa. to S. C. in Transit. Zone. In woods.
Pompilus (***Priocnemis***) ***fortis*** Cresson, 1867. Amer. Ent. Soc. Trans. 1: 113. ♀.
Pompilus (***Agenia***) ***nigropilosus*** Cresson, 1867. Amer. Ent. Soc. Trans. 1: 124. ♂.
Pseudagenia mariva Brimley, 1928. Elisha Mitchell Sci. Soc. Jour. 43: 202. ♂. N. syn.
Taxonomy: Bradley, 1944. Canad. Ent. 76: 131–132.

heiligbrodtii (Cresson), n. comb. Tex.
Priocnemis Heiligbrodtii Cresson, 1872. Amer. Ent. Soc. Trans. 4: 204. ♀.
Agenia Belfragei Cresson, 1872. Amer. Ent. Soc. Trans. 4: 205. ♂. N. syn.
Onochares brazoria Banks, 1933. Psyche 40: 9. ♀. N. syn.

maculipennis (Smith), n. comb. Mo., Ark., Miss., Ala., Ga.
Pompilus maculipennis Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 157. ♀.

pyrrhomelas (Walker), n. comb. B. C., Wash., Oreg., Calif., Idaho, Nev., Utah, Ariz., N. Mex.; Mexico. Commonest in Canad. zone.
Pompilus pyrrhomelas Walker, 1866. *In* Lord, Naturalist in Vancouver Isl. and B. C., v. 2, p. 341. ♀.
Cryptocheilus rugosus Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 101. ♀. N. syn.
Cryptocheilus inaequalis Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61:102. ♂.
Taxonomy: Bradley, 1944. Canad. Ent. 76: 132.

validus (Cresson), n. comb. S. C., Ga., Fla., Ala. L. Austr. zone.
Pompilus (***Priocnemis***) ***validus*** Cresson, 1867. Amer. Ent. Soc. Trans. 1: 116. ♀.

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[33] By Henry Townes, North Carolina State College, Raleigh, N. C. (Genus *Pepsis* by P. D. Hurd, Jr.)

Genus HEMIPEPSIS Dahlbom

Hemipepsis Dahlbom, 1844. Hym. Europaea, v. 1, p. 123.
Type: ***Hemipepsis capensis*** Dahlbom. Desig. by Ashmead, 1900.
Pallosoma Lepeletier, 1845. Hist. Nat. Ins. Hym., v. 3, p. 492.
Type: ***Pallosoma barbara*** Lepeletier. Desig. by Ashmead, 1900.
Tetraodontonyx Ashmead, 1900. Canad. Ent. 32: 187.
Type: (***Tetraodontonyx rufipes*** Ashmead) = [***Pompilus***] ***heros*** (Guérin.) Orig. desig.
Tetracryptocheilus Zavattari, 1907. R. Univ. Torino, Mus. Zool. Compar. Anat. Bol. 22 (555): 4.
Type: ***Cryptocheilus*** (***Tetracryptocheilus***) ***ascensi*** Zavattari. Orig. desig.
Tetracryptochilus Schulz, 1911. Zool. Ann. 4: 122. Emend.
Trichonyx Haupt, 1929. Rev. Zool. Bot. Africaines 17: 195.
Type: ***Hemipepsis unguicularis*** Kohl. Orig. desig.
Pachynimia Haupt, 1929. Rev. Zool. Bot. Africaines 17: 197, 202.
Type: ***Priocnemis tinctor*** Saussure. Orig. desig.
Xenopepsis Arnold, 1932. Transvaal Mus. Ann. 14: 291, 323, 367.
Type: ***Hemipepsis*** (***Xenopepsis***) ***commixta*** Arnold. Orig. desig.
Moropepsis Banks, 1934. Amer. Acad. Arts and Sci. Proc. 69: 6, 8.
Type: ***Hemipepsis*** (***Moropepsis***) ***croesus*** Banks. Monob.
Hovagenia Banks, 1941. Acad. Nat. Sci. Phila. Proc. 92: 343. N. syn.
Type: ***Hovagenia saussurei*** Banks. Orig. desig.

mexicana (Cresson). Tex. (Davis Mts.), south to Panama.
Mygnimia mexicana Cresson, 1867. Amer. Ent. Soc. Trans. 1: 143. ♀.

toussainti (Banks), n. comb. Ariz., N. Mex.; Mexico; Haiti.
Mygnimia toussainti Banks, 1928. Studies on Cuban Insects, v. 1, p. 5. ♂.

ustulata ochroptera Stål, n. status. Cent. and south. Calif. in U. Austr. and L. Austr. Zones.
Hemipepsis ochroptera Stål, 1857. Öfvers. Svenska Vetensk. Akad. Förh. 14: 64. (sex?).
Mygnimia hesperina Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 102. ♂ ♀. N. syn.

ustulata ustulata Dahlbom. Tex., Okla., Kans., Colo., N. Mex., Utah, Ariz.; Mexico. L. Austr. and U. Austr. Zones, less common in Transit. Zone.
Hemipepsis ustulata Dahlbom, 1843. Hym. Europaea, v. 1, p. 123. ♀.
Mygnimia cressoni Banks, 1926. Canad. Ent. 58: 203. ♂ ♀. N. syn.

Genus PEPSIS Fabricius[34]

Pepsis Fabricius, 1805 (1804). Systema Piezatorum, pp. 207–208.
Type: ***Sphex stellata*** Fabricius. Desig. by Latreille, 1810.
Revisions: Lucas, 1895 (1894). Berlin. Ent. Ztschr. 39: 449–839, pls. XXII-XXXIII.—Fox, 1898. Ent. Soc. Wash. Proc. 4: 140–148.—Brèthes, 1914. Buenos Aires Mus. Nac. Hist. Nat. An. 26: 235–360, pls. IX-XI.—Banks, 1921. Ent. Soc. Amer. Ann. 14: 21–23.—Banks, 1946. Harvard Univ., Mus. Compar. Zool. Bul. 96: 312–404.

The species are most frequently encountered at the flowers of various woody and suffrutescent plants of which the milkweed genus *Asclepias* appears to be the preferred floral host. So far as is known, all the species are parasitic on spiders of the family Theraphosidae (=Aviculariidae).

angustimarginata Viereck. Tex. to Kans. west to south. Calif.
Pepsis angustimarginata Viereck, 1908 (1907). Amer. Ent. Soc. Trans. 33: 398. ♀.
Pepsis sayi Banks, 1926. Canad. Ent. 58: 202. ♀ (♂ misdet.). N. syn.

arizonica Banks. Tex., Ariz., Calif.
Pepsis arizonica Banks, 1921. Ent. Soc. Amer. Ann. 14: 21–22, 23. ♂.

[34] By Paul D. Hurd, Jr., University of California, Berkeley, Calif.

azteca Cameron. Tex. (Devil's River).
Pepsis azteca Cameron, 1893. Biol. Cent.-Amer., Hym., v. 2, p. 215–216.

cerberus Lucas. Tex., Ariz.
Pepsis cerberus Lucas, 1895 (1894). Berlin. Ent. Ztschr. 39: 780, 790. ♂.
Pepsis inermis Fox, 1898. Ent. Soc. Wash. Proc. 4: 141, 146. ♀. N. syn.

charon Mocsáry. ?Tex.
Pepsis charon Mocsáry, 1885. Termes. Füzetek 9: 225. ♀.

chrysothemis Lucas. Tex. to Okla. west into Calif.
Pepsis chrysothemis Lucas, 1895 (1894). Berlin. Ent. Ztschr. 39: 731, 739. ♂.
Pepsis cinnabarina Lucas, 1895 (1894). Berlin. Ent. Ztschr. 39: 782, 804. ♀.
Taxonomy: Hurd, 1948. Calif. Univ., Pubs., Ent. 8: 124, 126, 136–140, figs. 1, 4.

circularis Fox. Tex.
Pepsis circularis Fox, 1898. Ent. Soc. Wash. Proc. 4: 142, 144. ♂.

elegans Lepeletier. Tex. to Kans. east to Atlantic Seaboard.
Pepsis elegans Lepeletier, 1845. Hist. Nat. Ins. Hym., v. 3, p. 489. ♂.
Pepsis dubitata Cresson, 1867. Amer. Ent. Soc. Trans. 1: 144. ♂ ♀.
Morphology: Salman, 1929. Amer. Ent. Soc. Trans. 55: 119–153, pls. VI-IX.
Taxonomy: Hurd, 1948. Calif. Univ., Pubs., Ent. 8: 126, 143–144, fig. 1.

formosa (Say). Tex. to Kans. west into Ariz. and Nev.
Pompilus formosus Say, 1832. West. Quart. Rptr. 2: 76. ♀.
Pepsis nephele Lucas, 1895 (1894). Berlin. Ent. Ztschr. 39: 732, 739. ♀. N. syn.
Pepsis pseudoformosa Cockerell, 1898. Davenport Acad. Nat. Sci. Proc. 7: 146. ♂. N. syn.
Taxonomy: Hurd, 1948. Univ. Calif., Pubs., Ent. 8: 133–135.

hirsuta Salman. Tex., Ariz.
Pepsis hirsuta Salman, 1933. Pan-Pacific Ent. 9: 9. ♀.

lucasii Fox. Tex.
Pepsis lucasii Fox, 1898. Ent. Soc. Wash. Proc. 4: 141, 145. ♀.

mexicana Lucas. Tex. west into south. Calif.
Pepsis mexicana Lucas, 1895 (1894). Berlin. Ent. Ztschr. 39: 560, 561, 566. ♂ ♀.
Taxonomy: Hurd, 1948. Calif. Univ., Pubs., Ent. 8: 124, 126, 145–146, fig. 1.

mildei Stål. Tex. to Kans. west into Calif.
Pepsis mildei Stål, 1857. Öfvers. Kongl. Vetensk. Akad. Förh. 14: 64.
Pepsis hesperiae Patton, 1894. Ent. Soc. Wash. Proc. 3: 46. ♂.
Pepsis boguei Fox, 1898. Ent. Soc. Wash. Proc. 4: 141, 142, 146. ♂ ♀.
Taxonomy: Hurd, 1948. Calif. Univ., Pubs., Ent. 8: 124, 125, 126, 127–129, figs. 1, 2.

novitia Banks. Tex.
Pepsis novitia Banks, 1921. Ent. Soc. Amer. Ann. 14: 21, 22. ♂.

pallidolimbata pallidolimbata Lucas. Tex. to Kans. west into south. Calif.
Pepsis pallidolimbata Lucas, 1895 (1894). Berlin. Ent. Ztschr. 39: 733, 745. ♀.
Pepsis bequaerti Salman, 1928. Pan-Pacific Ent. 5: 23. ♂.
Taxonomy: Hurd, 1948. Calif. Univ., Pubs., Ent. 8: 124, 126, 140–142, fig. 1.

pallidolimbata smithi Hurd. Calif. (west-central flanks of Sierra Nevada and Mt. Diablo-Mt. Hamilton ranges).
Pepsis pallidolimbata smithi Hurd, 1948. Calif. Univ., Pubs., Ent. 8: 126, 142. ♂ ♀.

pattoni Banks. N. Mex., Ariz., Calif.
Pepsis pattoni Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 181. ♂ ♀.

sherillae Hurd. Tex. west into south. Calif.
Pepsis sherillae Hurd, 1948. Calif. Univ., Pubs., Ent. 8: 124, 146. ♂.

thisbe Lucas. Tex. to Nebr. west into Calif.
Pepsis thisbe Lucas, 1895 (1894). Berlin. Ent. Ztschr. 39: 732, 733, 744. ♂ ♀.
Pepsis sayi Banks, 1926. Canad. Ent. 58: 202. ♂ (♀ misdet.).
Taxonomy: Hurd, 1948. Calif. Univ., Pubs., Ent. 8: 124, 126, 129–136, figs. 1, 3.

Genus PRIOCNESSUS Banks[35]

Priocnessus Banks, 1925. Harvard Univ., Mus. Compar. Zool. Bul. 77: 337.
Type: ***Salius neotropicalis*** Cameron. Desig. by Pate, 1946.
Cressochilus Banks, 1941. Canad. Ent. 73: 119, 120. N. syn.
Type: ***Pompilus nuperus*** Cresson. Orig. desig.
Amerocnemis Banks, 1945. Bol. Ent. Venezolana 4: 93. N. syn.
Type: ***Amerocnemis bequaerti*** Banks. Orig. desig.

apache (Banks). Tex. (Devils R.), Ariz. L. Austr. Zone.
Priocnemis (Priocnessus) apache Banks, 1933. Psyche 40: 11. ♀.
Taxonomy: Bradley, 1944. Canad. Ent. 76: 152.

coloradensis (Banks), n. comb. Colo., Tex. (Kerrville).
Cryptocheilus coloradensis Banks, 1910. N. Y. Ent. Soc. Jour. 18: 121. ♀.

dakota (Cresson), n. comb. Atlantic to 100° W. in U. Austr. Zone.
Pompilus (Agenia) Dakota Cresson, 1867. Amer. Ent. Soc. Trans. 1: 124. ♂.
Priocnemis (Priocnessus) kiowa Banks, 1933. Psyche 40: 12. ♀.
Taxonomy: Bradley, 1944. Canad. Ent. 76: 151–152.

leibyi (Brimley), n. comb. N. C., Ga., Tex. L. Austr. Zone.
Priocnemis leibyi Brimley, 1928. Elisha Mitchell Sci. Soc. Jour. 43: 203. ♂.

nebulosus (Dahlbom), n. comb. Atlantic to 100° W. in Transit., U. Austr., and L. Austr. zones.
Priocnemis nebulosus Dahlbom, 1843. Hym. Europaea, v. 1, p. 96. ♀.
Pompilus (Agenia) pulchrinus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 126. ♂.
Priocnemis subconicus Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 556. ♀. N. syn.

nuperus (Cresson). Atlantic to 100° W. in U. Austr. and L. Austr. zones.
Pompilus (Priocnemis) nuperus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 118. ♀.
Taxonomy: Bradley, 1944. Canad. Ent. 76: 150–151.

Genus PRIOCNEMIOIDES Radoszkowski

Priocnemioides Radoszkowski, 1888. Soc. Imp. Nat. Moscou Bul. (n. s.) 2: 482.
Type: ***Pompilus fulvicornis*** Cresson. Desig. by Banks, 1944.
Prionocnemoides Dalla Torre, 1897. Cat. Hym., v. 8, p. 211. Emend.
Priocnemoides (!) Ashmead, 1900. Canad. Ent. 32: 187.

fulvicornis (Cresson). Atlantic to 100° W. in U. Austr. and L. Austr. Zones.
Pompilus (Priocnemis) fulvicornis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 112. ♂ ♀.

magnus (Cresson). Ga. (Tifton), Tex.
Pompilus (Priocnemis) magnus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 111. ♀.

texanus texanus (Cresson). Southwest. United States.
Priocnemis texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 204. ♂ ♀.

texanus new subspecies. Ala. (Theodore), La. (Opelousas).

unifasciatus cressoni (Banks), n. status. Tex. to Ariz., south to Guatemala.
Cryptocheilus cressoni Banks, 1929. Psyche 36: 326. ♂ ♀.

unifasciatus unifasciatus (Say). Atlantic to 100° W. in U. Austr. Zone.
Pompilus unifasciatus Say, 1828. American Entomology 3: 92; Leconte Ed., v. 1, p. 92. ♀.

unifasciatus new subspecies. Cent. and south. Calif.; Baja Calif.

Genus CRYPTOCHEILUS Panzer

Salius Fabricius, 1804. Systema Piezatorum, p. 124. Preocc.
Type: ***Sphex sexpunctata*** Fabricius. Desig. by Guérin, 1849.

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[35] By Henry Townes, North Carolina State College, Raleigh, N. C.

Cryptocheilus Panzer, 1806. Krit. Rev. Insektenf. Deutschlands, v. 2, p. 120.
Type: *Sphex annulata* Fabricius. Desig. by Westwood, 1840.
Cryptochilus Rafinesque, 1815. Analyse de la Nature., p. 125. Emend.
Adonta Billberg, 1820. Enum. Ins., p. 101. N. name for *Salius*.
Stenoclavelia Arnold, 1932. Transvaal. Mus. Ann. 15: 44.
Type: *Stenoclavelia mirabilis* Arnold. Orig. desig.
Chilochares Banks, 1941. Canad. Ent. 73: 119, 120. N. Syn.
Type: (*Cryptocheilus birkmanni* Banks) = *Cryptocheilus idoneum birkmanni* Banks. Orig. desig.
Adirostes Banks, 1946. Harvard Univ., Mus. Compar. Zool. Bul. 96: 465. N. syn.
Type: *Adirostes tolteca* Banks. Orig. desig.

attenuatum Banks. Tenn., La., Iowa, Kans., Tex.
Cryptocheilus attenuatum Banks, 1933. Psyche 40: 8. ♂.

hesperus (Banks). Oreg., Calif., Nev., Utah.
Priocnemis hesperus Banks, 1915. Canad. Ent. 47: 401. ♀.
Cryptocheilus atratus Banks, 1919. Harvard Univ., Mus. Compar. Zool. Bul. 63: 247. ♂ ♀. N. syn.

idoneum birkmanni Banks, n. status. 100° W. to Rocky Mts. in U. Austr. and L. Austr. Zones; also Ariz., N. Mex., and south. Calif.; Baja Calif.
Cryptocheilus birkmanni Banks, 1926. Canad. Ent. 58: 202. ♂ ♀.

idoneum idoneum Banks. Va., N. C., Ga., Fla., Minn.
Psammochares tenuicornis Banks, 1910. Psyche 17: 249. ♂. Preocc.
Cryptocheilus idoneus Banks, 1910. Psyche 17: 250. ♀. N. syn.
Psammochares gracilicornis Banks, 1911. N. Y. Ent. Soc. Jour. 19: 225. N. name for *P. tenuicornis*.

pallidipenne (Banks). Calif., Ariz., and N. Mex. in L. Austr. Zone; also Oreg. (Corvallis).
Priocnemoides (!) *pallidipennis* Banks, 1911. N. Y. Ent. Soc. Jour. 19: 236. ♀.

severini Banks. 100° W. to Rocky Mts. in U. Austr. and L. Austr. Zones; also N. Mex., Ariz., and south. Calif.
Cryptocheilus severini Banks, 1926. Canad. Ent. 58: 202. ♂.
Cryptocheilus arizonicus Banks, 1933. Psyche 40: 7. ♀ (♂misdet.). N. syn.

terminatum subopacum (Cresson), n. status. Atlantic to 100° W. in U. Austr. Zone.
Pompilus (*Priocnemis*) *subopacus* Cresson, 1867. Amer. Ent. Soc. Trans. 1: 114. ♂ ♀.

terminatum terminatum (Say). 100° W. to Rocky Mts. in U. Austr. Zone.
Pompilus terminatus Say, 1828. American Entomology v. 3, p. 92; Leconte Ed., v. 1, p. 92. ♀.
Cryptocheilus carinatus Banks, 1926. Canad. Ent. 58: 202. ♂. N. syn.

Genus DIPOGON Fox

Subgenus DEUTERAGENIA Sustra

Agenia Schiödte, 1837. Kröyer's Naturhist. Tidsskr. 1:321. Preocc.
Type: *Sphex variegata* Linnaeus. Desig. by Westwood, 1840.
Pogonius Dahlbom, 1845 Hym. Europaea, v. 1, p. 453. Preocc.
Type: *Sphex variegata* Linnaeus. Desig. by Pate, 1946.
Deuteragenia Sustera, 1913. Zool.-Bot. Gesell. Wien, Verh. 16: 191. N. name for *Agenia*.
Adipogon Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 181.
Type: *Pompilus pulchripennis* Cresson. Orig. desig.

Species of this subgenus seem usually to nest in holes in dead wood, and the females are often seen on dead tree trunks.

calipterus calipterus (Say). N. J., Pa., Ind.
Pompilus calipterus Say, 1836. Boston Jour. Nat. Hist. 1: 302. ♀.
Deuteragenia pilosa Banks, 1933. Psyche 40: 16. ♀.

calipterus nubifer (Cresson), n. status. Calif. (Garden Grove); Mexico.
Pompilus (Agenia) nubifer Cresson, 1869. Boston Soc. Nat Hist. Proc. 12: 374. ♀.

papago (Banks). South. Ariz.
Deuteragenia papago Banks, 1933. Psyche 40: 17. ♀.

pulchripennis (Cresson). Atlantic to 100° W., mostly in Canad. and Transit. Zones; also Ariz. (9,000 ft. in Santa Catalina Mts.).
Pompilus (Agenia) pulchripennis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 123. ♂ ♀.

sayi sayi Banks. Atlantic to 100° W. in Transit. and U. Austr. Zones.
Dipogon sayi Banks, 1941. Canad. Ent. 73: 122. ♂ ♀.
Biology: Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 144 (misdet. as *calipterus*).

sayi n. subsp. Colo., B. C., Oreg., Calif.

sericea Banks. Oreg. (Camas Prairie Summit at 7,500 ft.).
Dipogon sericea Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 180. ♀.

Subgenus DIPOGON Fox

Dipogon Fox, 1897. Acad. Nat. Sci. Phila. Proc., p. 241.
Type: *Dipogon populator* Fox. Orig. desig.
Agriogenia Banks, 1919. Canad. Ent. 51: 83.
Type: *Pompilus brevis* Cresson. Orig. desig.

brevis (Cresson). N. C., S. C., Ga. in L. Austr. Zone.
Pompilus (Agenia) brevis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 123. ♂

graenicheri Banks. Fla., La., in L. Austr. Zone.
Dipogon graenicheri Banks, 1939. Canad. Ent. 71: 230. ♀.

texanus Banks. Tex. (Brownsville).
Dipogon texanus Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 179. ♀.

Genus PRIOCNEMIS Schiødte

Subgenus PRIOCNEMIS Schiødte

Priocnemis Schiødte, 1837. Kröyer's Naturhist. Tidsskr. 1: 324.
Type: *Sphex exaltata* Fabricius. Desig. by Westwood, 1840.
Prionocnemus Burmeister, 1872. Stettin. Ent. Ztg. 33: 235. Emend.
Prionocnemis Kirby, 1884. Zool. Rec. 20, Ins., p. 131. Emend. Preocc.
?*Hemipogonius* Saussure, 1892. *In* Grandidier, Hist. Nat. Madagascar, v. 20, Hym., 1, p. 334.
Type: *Priocnemis venustipennis* Saussure. Monob.

Adults of this subgenus occur in the spring.

minorata Banks. Transcont. in Transit. Zone.
Priocnemis conicus "Say", as misdetermined by authors.
Priocnemis minorata Banks, 1912. Canad. Ent. 44: 197. ♀.

nigripes (Cresson). N. C., Tenn., Ark., Mo., Nebr., Kans.
Pompilus (Priocnemis) nigripes Cresson, 1865. Ent. Soc. Phila. Proc. 4: 454. ♀.
Priocnemis gomelza Brimley, 1934. Ent. News. 45: 43. ♀. N. syn.

oregona Banks. B. C., Wash., Oreg., Calif., Idaho, Nev., Ariz.
Pompilus comparatus Walker, 1866. *In* Lord, Naturalist in Vancouver Isl and B C., v. 2, p. 341. ♀. Preocc.
Priocnemis oregona Banks, 1933. Psyche 40: 11. N. name.

pretiosa Banks. Ariz., N. Mex.; Mexico. At 7,500 to 9,800 ft.
Priocnemis pretiosa Banks, 1933. Psyche 40: 13. ♂.

Subgenus MYRMECOSALIUS Ashmead

Myrmecosalius Ashmead, 1903. Ent. Soc. Wash. Proc. 5: 307.
Type: *Myrmecosalius nigriceps* Ashmead. Monob.

aequalis (Banks), n. comb. Transcont. in Canad. Zone.
Ageniella aequalis Banks, 1919. Harvard Univ. Mus. Compar. Zool. Bul. 63: 243. ♂.

cornica (Say). Atlantic to 100° W. in Transit., U. Austr., and L. Austr. Zones. Sandy places. Prey: Small Lycosidae.
Pompilus (*Miscus*) *cornicus* Say, 1836. Boston Jour. Nat. Hist. 1: 305. ♀ (♂ misdet.?).
Pompilus (*Miscus*) *conicus* Leconte, 1859. Writings of Thomas Say on Entomology, v. 2, p. 746. Emend.
Pompilus (*Priocnemis*) *pomilius* Cresson, 1867. Amer. Ent. Soc. Trans. 1: 116. ♀. N. syn.
?Agenia atrata Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 263. ♂ ♀.
Salius pompilius (!) Dalla Torre, 1897. Cat. Hym., v. 8, p. 237.
?Ageniella minuscula Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 110. ♂. N. syn.
Priocnemis pompilus (!) Banks, 1919. Harvard Univ., Mus. Compar. Zool. Bul. 63: 245.
Ageniella eximia Banks, 1919. Canad. Ent. 51: 83. ♂. N. syn.
Ageniella aludra Brimley, 1928. Elisha Mitchell Sci. Soc. Jour. 43: 201. ♂. N. syn.
Biology: Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 53–55.

germana (Cresson), n. comb. Atlantic to 100° W. in Transit. and U. Austr. Zones. In woods.
Pompilus (*Priocnemis*) *germanus* Cresson, 1867. Amer. Ent. Soc. Trans. 1: 116. ♀.
Pompilus (*Agenia*) *iridipennis* Cresson, 1867. Amer. Ent. Soc. Trans. 1: 127. ♂. N. syn.
?Agenia perfecta Provancher, 1882. Nat. Canad. 13: 44. ♂. N. syn.

hestia (Banks), n. comb. N. H. to Va. In woods.
Ageniella hestia Banks, 1915. Canad. Ent. 47: 400. ♂.
Ageniella crassicornis Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 108. ♂. N. syn.

navajo Banks. B. C., Oreg., Calif., Ariz., N. Mex.; west. Mexico. Transit. and Canad. Zones.
Priocnemis navajo Banks, 1933. Psyche 40: 15. ♀.

nigriceps (Ashmead), n. comb. Iowa, Tex.
Myrmecosalius nigriceps Ashmead, 1903. Ent. Soc. Wash. Proc. 5: 308. ♀.

notha notha (Cresson), n. comb. Atlantic to Rocky Mts. in Canad., Transit., and U. Austr. Zones.
Pompilus (*Priocnemis*) *nothus* Cresson, 1867. Amer. Ent. Soc. Trans. 1: 118. ♀.
Cryptocheilus paeneparcus Viereck, 1906. Amer. Ent. Soc. Trans. 32: 202. ♀. N. syn.

notha occidentis Banks, n. status. Oreg., Wash., Calif. Transit. and Canad. Zones.
Priocnemis occidentis Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 172. ♀.

scitula relicta Banks, n. status. Que. to Va. in Transit. Zone. Bottomland woods.
Priocnemis relicta Banks, 1912. Canad. Ent. 44: 198. ♀.
Ageniella tenella Banks, 1915. Canad. Ent. 47: 400. ♂. N. syn.

scitula scitula (Cresson), n. comb. Atlantic to 100° W. in U. Austr. Zone. Bottomland woods.
Pompilus (*Priocnemis*) *scitulus* Cresson, 1867. Amer. Ent. Soc. Trans. 1: 118. ♀.

Genus CALICURGUS Lepeletier[36]

Calicurgus Lepeletier, 1845. Hist. Nat. Ins. Hym., v. 3, p. 397.
Type: (***Pompilus fasciatellus*** Spinola) = [***Sphex***] ***hyalinatus*** (Fabricius). Desig. by Kohl, 1884.
Caliadurgus Pate, 1946. Amer. Ent. Soc. Trans. 72: 78.
Type: ***Sphex hyalinata*** Fabricius. Orig. desig.

hyalinatus alienatus (Smith), n. status. Atlantic to 100° W. in Transit. and U. Austr. Zones. Stream and river bottoms. *C. hyalinata hyalinata* (Fabricius) occurs in Europe.
Pompilus fascipennis Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, app. p. 332. ♀. Preocc.
Pompilus alienatus Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 159. N. name.
Pompilus (Agenia) calcaratus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 128. ♂. N. syn.
Salius fasciipennis Dalla Torre, 1897. Cat. Hym., v. 8, p. 223. Emend.

hyalinatus borealis (Banks), n. status, n. comb. Transcont. in Canad. Zone.
Priocnemis alienatus borealis Banks, 1933. Psyche 40: 10. ♀.

hyalinatus rupex (Cresson), n. status. N. C. to Tex. and Mexico. L. Austr. Zone.
Pompilus (Priocnemis) rupex Cresson, 1869. Boston Soc. Nat. Hist. Proc. 12: 372. ♀.
Pompilus (Agenia) accolens Cresson, 1869. Boston Soc. Nat. Hist. Proc. 12: 374. ♂. N. syn.

Tribe MACROMERINI

Genus PHANAGENIA Banks

Phanagenia Banks, 1933. Psyche 40: 18.
Type: (***Phanagenia osceola*** Banks) = [***Pompilus***] ***bombycina*** (Cresson). Orig. desig.

bombycina (Cresson). Atlantic to 100° W. in U. Austr. and L. Austr. Zones; also N. Mex. Prey: *Lycosa kochii* (Keys.), *Maevia vittata* (Hentz). Parasite: *Ceropales robinsonii* Cress.
Pompilus (Agenia) bombycinus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 125. ♂ ♀.
Ageniella annecta Banks, 1911. N. Y. Ent. Soc. Jour. 19: 233. ♀. N. syn.
Phanagenia osceola Banks, 1933. Psyche 40: 18. ♀. N. syn.
Biology: Walsh and Riley, 1869. Amer. Ent. 1: 131–133, 136, 163.—Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 164–165.—Peckham, 1905. Wasps social and solitary, pp. 244–247.

Genus AUPLOPUS Spinola

Auplopus Spinola, 1841. Soc. Ent. France Ann. 10: 108.
Type: ***Pompilus femoratus*** Fabricius. Monob.
Aoplopus Agassiz, 1846. Nomencl. Zool., Index Univ., pp. 27, 41. Emend.
Pilpomus Costa, 1859. Fauna Regno Napoli, Imenotteri Aculeati, Pompilidea, p. 3.
Type: ***Sphex carbonarius*** Scopoli. Desig. by Pate, 1946.
Pseudagenia Kohl, 1884. Zool.-Bot. Gesell. Wien, Verh. 34: 38, 42.
Type: ***Sphex carbonarius*** Scopoli. Orig. desig.

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[36] Pate in 1946 pointed out that the name *Calicurgus* was first published by Brullé in 1833, as a synonym of *Pompilus*. He accepted this mention in synonymy as validating *Calicurgus*, with *Pompilus annulatus*, a species of *Cryptocheilus*, the genotype. To replace the, to him, preoccupied *Calicurgus* of Lepeletier and later authors he proposed the name *Caliadurgus*. Though Pate's action was in harmony with some of the Opinions of the International Commission on Zoological Nomenclature I must state (without at present going into details) that the arguments in favor of acceptance of a mention in synonymy as automatically validating a new name seem weak, and the idea itself absurd and harmful to nomenclatorial stability. So, I believe it correct to continue with the traditional application of the name *Calicurgus*.

?Stenagenia Saussure, 1892. *In* Grandidier, Hist. Nat. Madagascar, v. 20, Hym., 1, pp. 307, 338.
Type: (*Stenagenia pedunculata* Saussure) = [*Agenia*] *taeniatus* (Saussure). Desig. by Pate, 1946.
?Schizagenia Cameron, 1910. Wissen. Ergebn. Swed. Zool. Exped. Kilimandjaro, Meru . . . 8 Hym., 7 Fossores, p. 256.
Type: *Schizagenia carinigena* Cameron. Monob.
Tumagenia Banks, 1934. Amer. Acad. Arts and Sci. Proc. 69: 39, 67. N. syn.
Type: *Tumagenia iris* Banks. Monob.
Calagenia Banks, 1934. Amer. Acad. Arts and Sci. Proc. 69: 40, 72. N. syn.
Type: *Calagenia hermosa* Banks. Orig. desig.
Lophagenia Banks, 1934. Amer. Acad. Arts and Sci. Proc. 69: 40, 74. N. syn.
Type: *Pseudagenia erigone* Bingham. Orig. desig.

Members of this genus make mud cell nests under stones, under logs, and in other protected places.

adjunctus (Banks), n. comb. Md. to Fla., west to Tex.
Pseudagenia mellipes var. *adjuncta* Banks, 1911. Ent. Soc. Wash. Proc. 13: 238.—1912. N. Y. Ent. Soc. Jour. 19: 233. ♀.
Pseudagenia marionae Brimley, 1928. Elisha Mitchell Sci. Soc. Jour. 43: 202. ♂. N. syn.

architectus (Say), n. comb. Transcont. in Transit., U. Austr., and L. Austr. Zones. Nests under stones.
Pompilus architectus Say, 1836. Boston Jour. Nat. Hist. 1: 303. ♀.
Pseudagenia metallica Banks, 1910. N. Y. Ent. Soc. Jour. 18: 125. ♀. N. syn.
Taxonomy: Walsh, 1869. Amer. Ent. 1: 163.
Biology: Walsh and Riley, 1869. Amer. Ent. 1: 132, 163.

caerulescens antennalis (Banks), n. status, n. comb. Tex., Mo.
Pseudagenia antennalis Banks, 1910. Psyche 17: 251. ♀.

caerulescens caerulescens (Dahlbom), n. comb. S. C., Fla.
Agenia caerulescens Dahlbom, 1843. Hym. Europaea, v. 1, p. 93. ♀.
Pseudagenia coerulescens (!) Banks, 1911. N. Y. Ent. Soc. Jour. 19: 232. ♂ ♀.
Pseudagenia floridana Banks, 1921. Ent. Soc. Amer. Ann. 14: 21. ♀. N. syn.

caerulescens subcorticalis (Walsh), n. status, n. comb. Atlantic to 100° W. in Transit., U. Austr., and L. Austr. Zones, though replaced in parts of its range by the subspecies *antennalis* and *caerulescens*. Nests under loose bark.
Agenia subcorticalis Walsh, 1869. Amer. Ent. 1: 162. ♂ ♀.
Pseudagenia nigrella Banks, 1911. N. Y. Ent. Soc. Jour. 19: 232. ♀. N. syn.
Pseudagenia nanella Banks, 1912. Canad. Ent. 44: 198. ♀. N. syn.
Pseudagenia ariella Banks, 1941. Canad. Ent. 73: 122. ♀. N. syn.
Biology: Walsh and Riley, 1869. Amer. Ent. 1: 131–132.

flavicoxae (Banks), n. status, n. comb. Ariz. (Palmerlee).
Pseudagenia mexicana var. *flavicoxae* Banks, 1911. Ent. Soc. Wash. Proc. 13: 238. ♂ ♀.
Pseudagenia mexicana var. *flavicoxa* (!) Banks, 1912. N. Y. Ent. Soc. Jour. 19: 233.

mellipes (Say), n. comb. N. J. to Fla., west to Kans. and Tex. Nests in cells of abandoned nests of *Polistes*, *Sceliphron*, and *Trypoxylon*.
Pompilus mellipes Say, 1836. Boston Jour. Nat. Hist. 1: 304. ♀.
Agenia fulvipes Dahlbom, 1843. Hym. Europaea, v. 1, p. 92. ♀. N. syn.
Pseudagenia mellipes var. *interior* Banks, 1911. N. Y. Ent. Soc. Jour. 19: 233. ♀. N. syn.

mexicanus (Cresson), n. comb. South. Ariz.; Mexico.
Pompilus (*Agenia*) *mexicanus* Cresson, 1867. Amer. Ent. Soc. Trans. 1: 130. ♀.

variitarsatus (Dalla Torre), n. comb. Atlantic to 100° W. in Canad. and Transit. Zones. Nests in and under logs.
Pompilus (Agenia) varipes Cresson, 1867. Amer. Ent. Soc. Trans. 1: 126. ♀. Preocc.
Agenia variitarsata Dalla Torre, 1897. Cat. Hym., v. 8, p. 210. N. name.

Genus AGENIELLA Banks

Subgenus AMERAGENIA Banks

Ameragenia Banks, 1945. Bol. Ent. Venezolana 4: 125.
Type: *Ameragenia irene* Banks. Monob.

rufescens (Banks), n. comb. Kans.; N. Mex.
Priocnemis rufescens Banks, 1939. Canad. Ent. 71: 229. ♀.

salti (Banks), n. comb. Fla.; Cuba.
Priocnemella salti Banks, 1928. Studies on Cuban Insects, v. 1, p. 6. ♀.
Priocnemis osceola Banks, 1939. Canad. Ent. 71: 230. ♀. N. syn.

Subgenus LEUCOPHRUS Townes, new subgenus

Type: *Priocnemis semitincta* Banks.

Clypeus rather short, its hairless apical margin narrow, mat to polished, and not set off by a groove; lower edge of mandible in its basal third somewhat rounded and without a distinct ridge (with a more or less distinct ridge in all the other groups except the subgenus *Nemagenia*); mesopleurum without an oblique carina at the front end of its transverse suture; propodeum with a few erect hairs of moderate length; brush on inner side of hind tibia continuous to the apex; hind tibia of female with a dorsal row of weak longitudinal teeth and a subdorsal row of subobsolete tubercle-like teeth, between the two rows the tibia longitudinally weakly grooved or concave; sixth sternite of male with a short apical longitudinal ridge terminating in a rounded eminence; subgenital plate of male with a median longitudinal ridge which fades out before the apex.

Male with the face black but with a more or less distinct longitudinal whitish or yellowish mark next the eye (without this mark in the other subgenera); male with spurs of fore and middle tibiae usually whitish to dusky stramineous, the spurs of hind tibia blackish.

fulgifrons (Cresson), n. comb. U. Austr. and L. Austr. Zones from Atlantic to 100° W.
Pompilus (Priocnemis) fulgifrons Cresson, 1867. Amer. Ent. Soc. Trans. 1: 114. ♀.
Pompilus (Agenia) agilis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 126. ♂.
Salius fulgidifrons Dalla Torre, 1897. Cat. Hym., v. 8, p. 225. Emend.

incita (Banks), n. comb. Tex.
Cryptocheilus incitus Banks, 1911. N. Y. Ent. Soc. Jour. 19: 234. ♀.

reynoldsi (Banks), n. comb. Colo., Kans., Tex.
Priocnemis reynoldsi Banks, 1933. Psyche 40: 12. ♀.

semitincta (Banks), n. comb. Transcont. in U. Austr. and L. Austr. Zones. Prey: *Agelenopsis* sp.
Priocnemis semitincta Banks, 1912. Canad. Ent. 44: 197. ♀.
Ageniella festina Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 109. ♂. N. syn.
Ageniella fraternella Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 109. ♂. N. syn.
Priophanes holonis Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 174. ♀. N. syn.

Subgenus NEMAGENIA Banks

Nemagenia Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 179.
Type: ***Pompilus (Agenia) longulus*** Cresson. Orig. desig.

longula (Cresson). Transcont. in L. Austr. Zone; British Guiana; Bolivia. Prey: *Pardosa* sp., *Lycosa mccooki* Montgomery.
Pompilus (Agenia) longulus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 129. ♂.
Agenia longa Cresson, 1872. Amer. Ent. Soc. Trans. 4: 205. "♀" = ♂. N. syn.
Priocnemis directa Banks, 1912. Canad. Ent. 44: 197. ♀. N. syn.
Priophanes otiosa Banks, 1946. Harvard Univ., Mus. Compar. Zool. Bul. 96: 442. ♀. N. syn.

Subgenus AGENIELLA Banks

Ageniella Banks, 1912. N. Y. Ent. Soc. Jour. 19: 222.
Type: ***Pompilus (Agenia) acceptus*** Cresson. Orig. desig.

accepta (Cresson). Transcont. in L. Austr. Zone.
Pompilus (Agenia) acceptus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 130. ♀.
Pseudagenia texana Banks, 1910. N. Y. Ent. Soc. Jour. 18: 125. ♂. N. syn.
Ageniella adara Brimley, 1934. Ent. News 45: 41. ♂. N. syn.

blaisdelli (Fox). South. B. C. to south Calif. in Transit. and U. Austr. Zones.
Pseudagenia Blaisdelli Fox, 1892. Ent. News 3: 171. ♀.
Ageniella praestans Banks, 1914. N. Y. Ent. Soc. Jour. 22: 305. ♂. N. syn.

conflicta Banks, n. status. Transcont., mostly in U. Austr. Zone.
Pompilus (Agenia) petiolatus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 127. ♂. Preocc.
Ageniella accepta var. ***conflicta*** Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 176. ♀. N. syn.

coronata Banks. South. B. C. to cent. Calif. in Transit. and U. Austr. Zones.
Ageniella coronata Banks 1919. Harvard Univ., Mus. Compar. Zool. Bul. 63: 242. ♀.

cupida (Cresson). Pa., Va., W. Va., Ga., Iowa, Colo.; Guatemala.
Pompilus (Agenia) cupidus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 122. ♀.

euphorbiae (Viereck). Common in Calif., less common in B. C., Oreg., Ariz., N. Mex., Colo., and Tex.
Agenia euphorbiae Viereck, 1902. Acad. Nat. Sci. Phila. Proc., p. 734. ♂.
Pseudagenia submetallica Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 108. ♀. N. syn.
Ageniella subaequalis Banks, 1919. Harvard Univ., Mus. Compar. Zool. Bul. 63: 243. ♂. N. syn.

mintaka Brimley. N. C. (Raleigh).
Ageniella mintaka Brimley, 1928. Elisha Mitchell Sci. Soc. Jour. 43: 202. ♂.

neglecta Banks. Colo., N. Mex., Ariz.
Ageniella neglecta Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 176. ♂.

norata Banks. Atlantic to Ind., in Transit. Zone. Woodlands.
Ageniella norata Banks, 1914. N. Y. Ent. Soc. Jour. 22: 305. ♂.
Ageniella cupidella Banks, 1915. Canad. Ent. 47: 400. ♀. N. syn.

obscura delicata Banks, n. status. D. C., Va. (Falls Church).
Ageniella delicata Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 174. ♂.
Ageniella restricta Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 175. ♂. N. syn.

obscura obscura Banks. La., Tex.; Panama.
Ageniella obscura Banks, 1925. Harvard Univ., Mus. Compar. Zool. Bul. 67: 331. ♀.

pallida Banks. Iowa, Nebr., Kans., Tex.
Ageniella pallida Banks, 1945. Psyche 52: 106. ♀.

partita Banks. Transcont. in U. Austr. and L. Austr. Zones.
Ageniella partita Banks, 1919. Harvard Univ., Mus. Compar. Zool. Bul. 63: 244. ♂.

Subgenus PRIOPHANES Banks

Priophanes Banks, 1944. Psyche 50: 82.
Type: *Priocnemis facetus* Cresson. Orig. desig.

agenioides (Fox), n. comb. Atlantic to 100° W. in U. Austr. and L. Austr. Zones.
Priocnemis agenioides Fox, 1893. N. Y. Ent. Soc. Jour. 1: 54. ♀.
Pseudagenia virginica Banks, 1910. Psyche 17: 251. ♂. N. syn.
Ageniella subra Brimley, 1934. Ent. News 45: 42. ♂. N. syn.

arcuata (Banks), n. comb. Mostly in southeast. U. S., but known also from Alta. Colo., and south. Calif.
Cryptocheilus arcuatus Banks, 1910. N. Y. Ent. Soc. Jour. 18: 120. ♀.
Pseudagenia birkmanni Banks, 1910. N. Y. Ent. Soc. Jour. 18: 124. ♂. N. syn.

arizonica (Banks), n. comb. Ariz. (Tempe).
Priocnemis arizonica Banks, 1933. Psyche 40: 14. ♀.

faceta faceta (Cresson), n. comb. Southeast. U. S., except Fla.
Priocnemis facetus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 205. ♀.
Cryptocheilus pallescens Banks, 1910. N. Y. Ent. Soc. Jour. 18: 121. ♀. N. syn.

faceta n. subsp. Fla.

placita placita (Banks), n. comb. Ala., La., Tex.
Cryptocheilus placitus Banks, 1910. N. Y. Ent. Soc. Jour. 18: 122. ♀.
Pseudagenia apicipennis Banks, 1910. N. Y. Ent. Soc. Jour. 18: 123. ♂. N. syn.

placita n. subsp. South. Calif.; Mexico.

Subfamily CEROPALINAE[37]

Genus MINAGENIA Banks

Minagenia Banks, 1934. Amer. Acad. Arts and Sci. Proc. 69: 40, 64.
Type: *Pseudagenia (Minagenia) brevicornis* Banks. Orig. desig.
Nannochilus Banks, 1934. Harvard Univ., Mus. Compar. Zool. Bul. 94: 171. N. syn.
Type: *Pseudagenia externa* Banks. Orig. desig.

clypeata (Banks), n. comb. D. C., Va.
Ageniella clypeata Banks, 1914. N. Y. Ent. Soc. Jour. 22: 306. ♂.

congrua (Cresson), n. comb. W. Va.
Pompilus (Agenia) congruus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 129. ♀.

externa (Banks), n. comb. Tex. (Lee Co.).
Pseudagenia externa Banks, 1910. N. Y. Ent. Soc. Jour. 18: 124. ♀.

julia (Brimley), n. comb. N. C. (Raleigh).
Ageniella julia Brimley, 1934. Ent. News 45: 42. ♂.

osoria (Banks), n. comb. Md., Va.
Nannochilus osoria (as *Ageniella osoria* on p. 178) Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 172. ♂.

rufigastra (Provancher), n. comb. Que. to Ga.
Agenia rufigastra Provancher, 1889. Addit. Corr. Faune Ent. Canada Hym., p. 264. ♀.

[37] By Henry Townes, North Carolina State College, Raleigh, N. C.

Genus NOTOCYPHUS Smith

Notocyphus Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 172.
Type: ***Notocyphus saevissimus*** Smith. Desig. by Smith, 1873.

plagiatus dorsalis Cresson. Tex. *N. plagiatus plagiatus* Smith, 1862, occurs in Mexico.
Notocyphus dorsalis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 207. ♀.
Notocyphus texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 207. ♂. N syn.
Taxonomy: Schulz, 1911. Zool. Ann. 4: 116.

plagiatus n. subsp. Ariz., south. Calif.

Genus CEROPALES Latreille

Ceropales Latreille, 1796. Précis Caract. Gen. Ins., p. 123.
Type: ***Evania maculata*** Fabricius. Desig. by Curtis, 1839.
Ceratopales (!) Howard, 1901. Insect Book, pl. 5, fig. 10.
Ceratopales Schulz, 1906. Spolia Hym., p. 174. Emend.
Agenioxenus Ashmead, 1902. Canad. Ent. 34: 137.
Type: (***Ceropales rufiventris*** Walsh) = ***Ceropales robinsonii*** Cresson. Monob. and orig. desig.
Hypsiceraeus Morice and Durant, 1915. Ent. Soc. London Trans., pp. 403, 405.
Type: ***Evania maculata*** Fabricius. Orig. desig.
Revisions: Fox, 1892. Amer. Ent. Soc. Trans. 19: 49–63.—Dreisbach, 1948. N. Y. Ent. Soc. Jour. 56: 233–268.

Members of this genus are parasites on other pompilids, and oviposit on the prey of the host before it is placed in the nest.

bipunctata bipunctata Say. Atlantic to 100° W. in Transit. and U. Austr. Zones.
Ceropales bipunctata Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, app., p. 334. ♂ ♀.

bipunctata tibialis Banks. N. C., S. C.
Ceropales bipunctata var. ***tibialis*** Banks, 1910. N. Y. Ent. Soc. Jour. 18: 126. ♂ ♀.

cubensis Cresson. Tex. (Presidio and Brownsville), south to Panama; West Indies.
Ceropales cubensis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 132. "♀"= ♂.
Ceropales albopicta Cresson, 1869. Boston Soc. Nat. Hist. Proc. 12: 378. ♂. N. syn.

elegans elegans Cresson. Pacific to 100° W. in U. Austr. and L. Austr. Zones.
Ceropales elegans Cresson, 1872. Amer. Ent. Soc. Trans. 4: 208. ♀.
Ceropales Cressoni Fox, 1892. Amer. Ent. Soc. Trans. 19: 58. ♂ ♀. N. syn

elegans quaintancei Viereck, n. status. Md., Ill., Ga.
Ceropales quaintancei Viereck, 1902. Ent. News 13: 275. "♂" = ♀.

femoralis Cresson. Transcont. in U. Austr. and L. Austr. Zones and south to Panama.
Ceropales femoralis Cresson, 1869. Boston Soc. Nat. Hist. Proc. 12: 378. ♀.
Ceropales foxii Rohwer, 1916. Canad. Ent. 48: 369. ♂. N. syn.
Ceropales hatoda Brimley, 1928. Elisha Mitchell Sci. Soc. Jour. 43: 201. ♂. N. syn.

floridensis Dreisbach. Fla. (Gainesville).
Ceropales floridensis Dreisbach, 1948. N. Y. Ent. Soc. Jour. 56: 233. ♀.

fraterna fraterna Smith. Transcont. in Transit. and U. Austr. Zones, but replaced in central and south. Calif. by the subspecies *stretchii*.
Ceropales fraterna Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 180. ♀.
Ceropales minima Provancher, 1889. Addit. Corr. Faune Ent. Canada Hym., p. 265. ♂.
Ceropales fraternus occidentalis Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 2: 455. ♂. N. syn.
Taxonomy: Rohwer, 1916. Canad. Ent. 48: 369.
Biology: Peckham, 1898. Wis. Nat. Hist. Survey Bul. 2: 154–155, 239.

fraterna stretchii Fox, n. status. Central and south. Calif.
Ceropales Stretchii Fox, 1892. Amer. Ent. Soc. Trans. 19: 52. ♀.

fulvipes Cresson. Tex.
Ceropales fulvipes Cresson, 1872. Amer. Ent. Soc. Trans. 4: 208. ♀.
?Ceropales brevicornis Patton, 1879. U. S. Geol. and Geog. Survey Bul. 5: 368. ♂.

longipes Smith. Ga.
?Ceropales fasciata Say, 1824. *In* Keating, Narr. Long's 2nd Exped. v. 2, app., p. 333; Leconte Ed. v. 1, p. 224. Preocc.
Ceropales longipes Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 179. ♀.
?Ceropales frigida Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 180. N. name for *C. fasciata*.

neomexicana Rohwer. North. N. Mex., Calif.
Ceropales neomexicana Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 236. ♂.

nigripes Cresson. Pacific to 100° W. in Transit. and U. Austr. Zones.
Ceropales nigripes Cresson, 1867. Amer. Ent. Soc. Trans. 1: 139. ♀.
Ceropales texana Cresson, 1872. Amer. Ent. Soc. Trans. 4: 208. ♂. N. syn.

robinsonii Cresson. Que. to Ga., west to Ill. Host: *Phanagenia bombycina* (Cress.)
Ceropales Robinsonii Cresson, 1867. Amer. Ent. Soc. Trans. 1:140. ♂.
Ceropales rufiventris Walsh & Riley, 1869. Amer. Ent. 1: 136, 163. ♂ ♀.
Ceropales superba Provancher, 1883. Nat. Canad. 14: 36. ♀.
Taxonomy: Rohwer, 1916. Canad. Ent. 48: 369.
Biology: Walsh and Riley, 1869. Amer. Ent. 1: 136, 163.

stigmatica Banks, n. status. Tex.
Ceropales robinsoni (!) var. *stigmatica* Banks, 1910. N. Y. Ent. Soc. Jour. 18: 126. ♀.

Subfamily POMPILINAE[38]

Tribe APORINI

Wasps of this tribe, so far as is known, prey upon trapdoor spiders (Ctenizidae); the burrow of the spider is utilized as a nest by the wasp.

Revision: Bradley, 1944. Amer. Ent. Soc. Trans. 70: 32–139.

Genus APORUS Spinola

Subgenus APORUS Spinola

Aporus Spinola, 1808. Insectorum Liguriae, v. 2, p. 5.
Type: *Aporus bicolor* Spinola. Desig. by Latreille, 1810.
Actenopoda Ashmead, 1902. Canad. Ent. 34: 88.
Type: (*Actenopoda rileyi* Ashmead) = [*Planiceps*] *niger* (Cresson). Monob.

bequaerti (Banks). Tex., Mexico.
Planiceps bequaerti Banks, 1931. Brooklyn Ent. Soc. Bul. 26: 131. ♀.

calcaratus (Fox). S. Fla.
Planiceps calcaratus Fox, 1893. Canad. Ent. 25: 115. ♂.

hermes Bradley. Carol. Fauna, Va. to Mass.; Mo.
Aporus (Aporus) hermes Bradley, 1944. Amer. Ent. Soc. Trans. 70: 94. ♀ ♂.

luxus assimilis (Banks). U. Sonor. and Transit. Faunas, Calif. and Utah to B. C. and Idaho.
Planiceps assimilis Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 100. ♀.

luxus luxus (Banks). L. Sonor. Fauna of Calif. Sandy areas.
Planiceps luxus Banks, 1914. N. Y. Ent. Soc. Jour. 22: 304. ♀ ♂.

[38] By Howard E. Evans, Kansas State College, Manhattan, Kansas.

niger (Cresson). Carol. and Austrorip. Faunas, Tex. and Fla. to Nebr., Ill., south. Ont., and Mass.
Planiceps niger Cresson, 1867. Amer. Ent. Soc. Trans. 1: 136. ♀.
?*Planiceps feralis* Cresson, 1872. Amer. Ent. Soc. Trans. 4: 207. "♀" = ♂.
?*Planiceps concolor* Patton, 1879. U. S. Geol. Geog. Survey Bul. 5: 367. ♀.
Planiceps minor Fox, 1893. N. Y. Ent. Soc. Jour. 1: 55. ♀.
Planiceps dubius Fox, 1893. N. Y. Ent. Soc. Jour. 1: 55. ♂.
Planiceps clericus Dalle Torre, 1897. Cat. Hym., v. 8, p. 281. N. name.
Actenopoda rileyi Ashmead, 1902. Canad. Ent. 34: 88. *Nom. nud.*
Planiceps compressus Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 99. ♀.

yavapai (Banks). Ariz. (Graham Co.).
Planiceps yavapai Banks, 1933. Psyche 40: 1. ♀.

Subgenus PLECTRAPORUS Bradley

Plectraporus Bradley, 1944. Amer. Ent. Soc. Trans. 70: 97.
Type: ***Planiceps hirsutus*** Banks. Monob.

hirsutus (Banks). L. and U. Sonor. Fauna of Calif. and Nev. Sandy places; preys on the trapdoor spider *Aptostichus*.
Planiceps hirsutus Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 99. ♀.
Biology: Williams, 1928. Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Ser. Bul. 19: 135–140.

Genus MELANAPORUS Ashmead

Melanaporus Ashmead, 1902. Canad. Ent. 34: 132.
Type: ***Planiceps euferalis*** Fox. Monob.
Odontaporus Bradley, 1944. Amer. Ent. Soc. Trans. 70: 110. N. syn.
Type: ***Planiceps notabilis*** Smith. Orig. desig.

notabilis (Smith). Cent. Amer., Mexico; Ariz. (Pima Co.).
Planiceps notabilis Smith, 1860. Jour. Ent. 1: 80. ♀.

Genus CHELAPORUS Bradley

Chelaporus Bradley, 1944. Amer. Ent. Soc. Trans. 70: 116.
Type: ***Pedinaspis anomala*** Banks. Monob.

anomalus (Banks). Austrorip. Fauna of Tex.; Mexico.
Pedinaspis anomala Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 100. ♀.

Genus ALLAPORUS Banks

Allaporus Banks, 1933. Psyche 40: 2.
Type: (***Planiceps pulchella*** Banks) = [***Aporus***] ***rufiventris*** (Cresson). Orig. desig.

amabilis Evans. Calif. (Tulare Co.).
Allaporus amabilis Evans, 1950. Ent. News 61: 2. ♀.

mexicanus Evans. Tex. (Brownsville); Mexico.
Allaporus mexicanus Evans, 1950. Ent. News 61: 3. ♀.

rufiventris (Cresson). Transcont. in L. and U. Austr. Zones.
Aporus rufiventris Cresson, 1872. Amer. Ent. Soc. Trans. 4: 207. ♀. Preocc. in *Pompilus*.
Aporus minimus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 207. ♂.
Pompilus rufiventricosus Dalla Torre, 1897. Cat. Hym., v. 8, p. 318. N. name.
Planiceps pulchella Banks, 1910. N. Y. Ent. Soc. Jour. 18: 123. ♀.
Planiceps hesperus Banks, 1929. Psyche 36: 327. ♀ ♂.

Genus PSORTHASPIS Banks

Psorthaspis Banks, 1911. N. Y. Ent. Soc. Jour. 19: 231.
Type: (*Parapompilus laevifrons* Cresson) = *Psorthaspis cressoni* Bradley. Monob.
Idopedinaspis Haupt, 1930. Berlin Zool. Mus. Mitt. 16: 724, 783.
Type: *Ferreola laevifrons* Cresson. Desig. by Haupt, 1937.

albocaudata (Malloch), n. comb. Ariz. (Maricopa Co.).
Pedinaspis albocaudata Malloch, 1928. Ent. Soc. Wash. Proc. 30: 101. ♂.

australis (Banks). Tex.
Pedinaspis australis Banks, 1910. N. Y. Ent. Soc. Jour. 18: 122. ♂.

brimleyi (Malloch). Austrorip. Fauna, Tex. to N. C.
Pedinaspis brimleyi Malloch, 1928. Ent. Soc. Wash. Proc. 30: 101. ♀.

conocephala Bradley. Tex. (Brownsville).
Psorthaspis conocephala Bradley, 1944. Amer. Ent. Soc. Trans. 70: 67. ♂.

cressoni Bradley. Austrorip. Fauna of Tex.
Psorthaspis cressoni Bradley, 1944. Amer. Ent. Soc. Trans. 70: 59. ♀ ♂.

legata (Cresson). Austrorip. Fauna, Tex. and Ga. to Tenn. and Md.
Pompilus ? *legatus* Cresson, 1867. Amer. Ent. Soc. Trans. 1: 109. ♀.

levis Bradley. Tex. (Duval Co.).
Psorthaspis levis Bradley, 1944. Amer. Ent. Soc. Trans. 70: 43. ♂.

luctuosa (Banks). Tex.
Pedinaspis luctuosa Banks, 1910. N. Y. Ent. Soc. Jour. 18: 123. ♀.

magna (Banks). Tex. (Lee Co.).
Aporus magnus Banks, 1910. N. Y. Ent. Soc. Jour. 18: 126. ♂.

mariae (Cresson). Austrorip. and Carol. Faunas, Fla. and Tenn. to Ill. and N. J.
Pompilus ? *mariae* Cresson, 1867. Amer. Ent. Soc. Trans. 1: 108. ♀.
Pedinaspis mariae var. *antennalis* Banks, 1921. Ent. Soc. Amer. Ann. 14: 21. ♀.

morosa Bradley. Utah.
Psorthaspis morosa Bradley, 1944. Amer. Ent. Soc. Trans. 70: 42. ♀.

nigriceps (Banks). N. Mex., Ariz., Utah.
Pedinaspis nigriceps Banks, 1933. Psyche 40: 2. ♀.

planata (Fox). L. Sonor. Fauna, Calif. Preys on the trapdoor spider *Bothriocyrtum californicum* (Cambridge).
Planiceps planatus Fox, 1892. Ent. News 3: 171. ♀.
Pompilus aequus Fox, 1894. Calif. Acad. Sci. Proc. (2) 4: 99. ♀.
Sophropompilus tumifrons Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 103. ♂.
Pedinaspis bucephala Malloch, 1928. Ent. Soc. Wash. Proc. 30: 101. ♂.
Biology: Davidson, 1915. Ent. News 16: 233.—Jenks, 1938. Natl. Geog. Mag. 74: 807–828.

portiae (Rohwer). Ariz., Tex.
Pedinaspis (Psorthaspis) portiae Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 228. ♀.

sanguinea (Smith). Austrorip. Fauna, Tex. and Fla. to Kans. and N. C.
Ferreola sanguinea Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 170. ♀.
Parapompilus contiguus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 206. ♀.

texana (Cresson). Austrorip. Fauna of Tex.
Parapompilus texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 206. ♀.

vicina (Cresson). Tex.
Parapompilus vicinus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 206. ♀.
Pompilus bombinator Dalla Torre, 1897. Cat. Hym., v. 8, p. 277. N. name.

Tribe POMPILINI

Wasps of this tribe are primarily predators on errant or web-spinning

spiders; the majority of species construct a simple gallery in the earth with an enlarged terminal cell, in which a single spider is stored and an egg laid upon it.

Revision: Evans, 1950. Amer. Ent. Soc. Trans. 75: 133–270.

Genus TASTIOTENIA Evans

Tastiotenia Evans, 1950. Amer. Ent. Soc. Trans. 75: 150.
Type: *Tastiotenia festiva* Evans. Monob.

festiva Evans. Calif. (Needles): Mexico.
Tastiotenia festiva Evans, 1950. Amer. Ent. Soc. Trans. 75: 152. ♀.

Genus CHALCOCHARES Banks

Chalcochares Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 107.
Type: *Psammochares hirsutifemur* Banks. Monob.
Anotochares Banks, 1939. Canad. Ent. 71: 225, 228.
Type: *Anotochares engleharti* Banks. Monob.

engleharti (Banks). Tex.; Mexico.
Anotochares engleharti Banks, 1939. Canad. Ent. 71: 228. ♀.

hirsutifemur (Banks). L. Sonor. Fauna, south. N. Mex. to Calif.
Psammochares hirsutifemur Banks, 1914. N. Y. Ent. Soc. Jour. 22: 304. ♀.

Genus EVAGETES Lepeletier

Evagetes Lepeletier, 1845. Hist. Nat. Hym., v. 3, p. 390.
Type: (*Evagetes bicolor* Lepeletier) = [*Aporus*] *dubius* Van der Linden. Monob.
Sophropompilus Howard, 1901. Insect Book, pl. VII, fig. 13.
Type: *Pompilus ingenuus* Cresson. Monob.
?*Nannopompilus* Ashmead, 1902. Canad. Ent. 34: 82.
Type: (*Nannopompilus argenteus* Ashmead) = ?[*Pompilus*] *parvus* Cresson. Monob.
Psammochares Crassicornis-group Haupt, 1927. Deut. Ent. Ztschr. Beih., pp. 154, 210, 227.

Members of this genus are social parasites of other Pompilini. The females seek the freshly filled nests of their hosts, usually in sandy places, dig into them, destroy the host egg, deposit one of their own, and refill the burrow.

crassicornis consimilis (Banks). Canad. and Transit. Faunas, Yukon and Man. to higher parts of N. Mex. and Calif.
Pompiloides consimilis Banks, 1911. N. Y. Ent. Soc. Jour. 19: 228. ♀ ♂.

crassicornis crassicornis (Shuckard). Canad. Zone, N. S. and Yukon to Wash., N. Dak., Mich., and Pa.: Europe.
Pompilus crassicornis Shuckard, 1835. Essay on Indig. Fossor. Hym., p. 63. ♀.
Pompiloides rufibasis Banks, 1911. N. Y. Ent. Soc. Jour. 19: 226. ♀.

hyacinthinus (Cresson). Transcont., L. Austr. to Transit. Zone. Sandy places, especially along streams.
Pompilus hyacinthinus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 90. ♀.
Pompilus brevicornis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 90. ♂
Pompilus castaneus Provancher, 1882. Nat. Canad. 13: 35, 39. ♂.
Psammochares (*Arachnophila*) *scudderi* Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 104, 107. ♀.
Sophropompilus quadrispinosus Banks, 1919. Canad. Ent. 51: 82. ♀.
Sophropompilus bradleyi Banks, 1919. Harvard Univ., Mus. Compar. Zool. Bul. 63: 237. ♀.
Sophropompilus mohave Banks, 1933. Psyche 40: 6. ♀.
Nannopompilus texanus Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 170. ♀.

ingenuus (Cresson). Transcont. in U. Austr. and lower part of Transit. Zone. Sandy places, and on flowers of *Solidago* and *Daucus carota*.
Pompilus ingenuus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 89. ♀ ♂.

padrinus minusculus (Banks). Austrorip. to Transit. Fauna, Tex. and Ga. to Man., Mich., Ont., and N. H.
Psammochares minusculus Banks, 1910. N. Y. Ent. Soc. Jour. 18: 118. ♀.

padrinus padrinus (Viereck). L. and U. Sonor. Faunas, Tex. and Man. west to the Pacific. Sandy places.
Anoplius (Pompilinus) padrinus Viereck, 1902. Acad. Nat. Sci. Phila. Proc. 54: 734. ♂.

parvus (Cresson). Transcont. in U. Austr. and Transit. Zones. Sandy places, and on flowers, especially Umbelliferae.
Pompilus parvus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 453. ♀.
Pompilus subviolaceus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 91. ♀.
Pompilus argenteus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 93. ♂.
?***Nannopompilus argenteus*** Ashmead, 1902. Canad. Ent. 34: 82.
Pompiloides minora Banks, 1911. N. Y. Ent. Soc. Jour. 19: 227. ♀.

subangulatus (Banks). Transcont., Huds. to Transit. Zone. Sandy places, and on flowers of *Solidago* and *Spiraea*.
Sophropompilus subangulatus Banks, 1919. Harvard Univ., Mus. Compar. Zool. Bul. 63: 237. ♀ ♂.
Psammochares (Sophropompilus) tebemi Brimley, 1936. Elisha Mitchell Sci. Soc. Jour. 52: 127. ♀.

Genus AGENIOIDEUS Ashmead

Subgenus AGENIOIDEUS Ashmead

Agenioideus Ashmead, 1902. Canad. Ent. 34: 85.
Type: ***Pompilus humilis*** Cresson. Monob.
Aporoideus Ashmead, 1902. Canad. Ent. 34: 86.
Type: ***Pompilus sericeus*** Van der Linden. Monob.

humilis (Cresson). Transit. to L. Austr. Zones, N. B. and B. C. to Fla. and Guatemala. Nests in sandy places, and around cliffs, walls, and buildings; preys on Epeirid spiders.
Pompilus humilis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 91. ♀.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 15.

Subgenus RIDESTUS Banks

Ridestus Banks, 1911. N. Y. Ent. Soc. Jour. 19: 223.
Type: (***Psammochares transversalis*** Banks) = [***Psammochares***] ***biedermani*** (Banks). Monob.

biedermani (Banks). L. Sonor. Fauna, entering U. Sonor., Kans., Utah, and Calif. south into Mexico.
Psammochares biedermani Banks, 1910 (June). N. Y. Ent. Soc. Jour. 18: 116. ♂.
Psammochares striatulus Banks, 1910 (June). N. Y. Ent. Soc. Jour. 18: 119. ♀.
Psammochares transversalis Banks, 1910 (Dec.). Psyche 17: 248. ♀.

Subgenus GYMNOCHARES Banks

Gymnochares Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 107, 108.
Type: ***Psammochares birkmanni*** Banks. Desig. by Pate, 1946.

birkmanni (Banks). Transcont. in L. Austr. Zone, entering U. Austr. in West; Ga., Kans., Wyo., and Oreg. southward.
Psammochares birkmanni Banks, 1910. N. Y. Ent. Soc. Jour. 18: 116. ♂.
Gymnochares texana Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 170. ♀.

Genus SERICOPOMPILUS Howard

Sericopompilus Howard, 1901. Insect Book, pl. XI, fig. 17.
Type: (*Pompilus cinctipes* Cresson) = [*Ceropales*] *apicalis* (Say). Monob.

angustatus (Cresson). L. and U. Austr. Zones of the Great Plains area; Tex. and N. Mex. to Colo., S. Dak., and Mich.
Pompilus angustatus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 452. ♀.
Psammochares fulvoapicalis Banks, 1910. N. Y. Ent. Soc. Jour. 18: 117. ♀.
Sericopompilus fumosus Banks, 1933. Psyche 40: 5. ♂.

apicalis (Say). Austrorip. and Carol. Faunas, Tex. and Fla. to Nebr., Mich., and Conn. Preys on Lycosid and Thomisid spiders; nests in soft earth; visits *Daucus carota* and other flowers.
Ceropales apicalis Say, 1835. Boston Jour. Nat. Hist. 1: 366. ♂.
Pompilus fuscipennis Lepeletier, 1845. Hist. Nat. Ins., Hym., v. 3, p. 434. ♀. Preocc.
Pompilus sordidus Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 160. ♀. N. name.
Pompilus cinctipes Cresson, 1867. Amer. Ent. Soc. Trans. 1: 102. ♂. N. name.
Biology: Peckham and Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 140–144.

neotropicalis (Cameron). L. Austr. Zone, Guatemala to Calif., Ariz., Tex., Ala., Ga., Fla., and N. C.
Pompilus neotropicalis Cameron, 1893. Biol. Cent.-Amer., Hym., v. 2, p. 203. ♀.
Pompilus guatemalensis Cameron, 1893. Biol. Cent.-Amer., Hym., v. 2, p. 206. ♂.
Psammochares posticatus Banks, 1910. N. Y. Ent. Soc. Jour. 18: 119. ♂.
Psammochares fuscipennis var. *georgiana* Banks, 1911. Ent. Soc. Wash. Proc. 13: 238. ♀.

Genus EPISYRON Schiødte

Episyron Schiødte, 1837. Kröyer's Naturhist. Tidsskr. 1: 341.
Type: *Sphex rufipes* Linnaeus. Monob.
Spilopompilus Ashmead, 1902. Canad. Ent. 34: 81.
Type: *Pompilus biguttulatus* (!) Fabricius. Monob.
Epizuron Ashmead, 1902. Canad. Ent. 34: 82.
Type: *Sphex rufipes* Linnaeus. Monob.

Extremely active wasps, two of which have been dubbed the "Tornado Wasp" and the "Hurricane Wasp" by the Peckhams. They nest in short burrows in sand, which they provision invariably with orb-weavers (Epeiridae). They visit flowers of many kinds.

biguttatus biguttatus (Fabricius). Temperate No. Amer. east of the Rockies, Tex. and Fla. to Labr. and N. W. T.
Pompilus biguttatus Fabricius, 1798. Sup. Ent. System., p. 249. ♀.
Episyron atrytone Banks, 1911. N. Y. Ent. Soc. Jour. 19: 229. ♀.
Biology: Peckham and Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 138–140.—Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 9–10.

biguttatus californicus (Banks). U. Sonor. to Canad. Fauna, N. Mex. and Calif. to B. C., Alta., and S. Dak.
Psammochares californica Banks, 1910. N. Y. Ent. Soc. Jour. 18: 117. ♂.
Episyron arizonica Banks, 1933. Psyche 40: 5. ♀.

oregon Evans. Transit. and Canad. Fauna, Yukon and Alta. to Wyo. and Calif.
Episyron oregon Evans, 1950. Amer. Ent. Soc. Trans. 75: 231. ♀ ♂.

posterus (Fox). L. Austr. Zone, Guatemala to south. Calif., Tex., Ill., and south. N. Y.
Pompilus posterus Fox, 1893 (May). Canad. Ent. 25: 115. ♀ ♂.
Pompilus exactus Cameron, 1893. (Sept.). Biol. Cent.-Amer., Hym., v. 2, p. 202. ♀ ♂.
Pompilus porus Fox, 1894. Calif. Acad. Sci. Proc. (2) 4: 98. ♀ ♂.

quinquenotatus hurdi Evans. Transit. and U. Sonor. Fauna, B. C. and Alta. to Utah and Calif.

Episyron quinquenotatus hurdi Evans, 1950. Amer. Ent. Soc. Trans. 75: 221. ♀ ♂.

quinquenotatus quinquenotatus (Say). Canad. to U. Austr. Zone, N. S., Sask., and B. C. to Mont., Colo., Tex., and Ala.

Pompilus quinquenotatus Say, 1835. Boston Jour. Nat. Hist. 1: 304. ♀

Pompilus griseus Provancher, 1882. Nat. Canad. 13: 35, 36. ♂.

Biology: Peckham and Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 126–138.

snowi (Viereck). Transcont. in L. and U. Austr. Zones, north to N. J., Ill., S. Dak., Mont., and Oreg.

Anoplius (*Pompilinus*) *snowi* Viereck, 1906. Amer. Ent. Soc. Trans. 32: 202. ♂.

Psammochares maneei Banks, 1910. N. Y. Ent. Soc. Jour. 18: 117. ♀.

Episyron laevis Banks, 1933. Psyche 40: 4. ♀.

Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 10.

Genus POECILOPOMPILUS Howard

Poecilopompilus Howard, 1901. Insect Book, pl. V. fig. 1, and pl. XI, fig. 18.
Type: (*Pompilus navus* Cresson) = [*Ceropales*] *interruptus interruptus* (Say). Desig. by Ashmead, 1902.

Batozonus Howard, 1901. Insect Book, pl. XI, fig. 24.
Type: *Pompilus algidus* Smith. Monob.

Wasps of this genus, as in the closely related *Episyron*, prey exclusively upon Epeiridae, and nest in sandy places; they are also frequent visitors to flowers. Belt (1874, The Naturalist in Nicaragua, p. 133) vividly describes the habits of a Central American species in capturing and transporting its prey.

algidus algidus (Smith). Austrorip. and Carol. Fauna, Tex. and Fla. to Mass., Mich., and N. Dak.

Pompilus algidus Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 158. ♀.

algidus coquilletti (Provancher). U. Sonor. Fauna, south. Calif. and N. Mex. to Utah and north. Calif.

Pompilus coquilletti Provancher, 1889. Addit. Corr. Faune Ent. Canad. Hym., p. 261. ♂.

Batazonus (!) *flavipennis* Banks, 1921. Ent. Soc. Amer. Ann. 14: 20. ♀.

algidus marcidus (Smith). Cent. Amer. to south. and west. Tex., west. Kans., Nebr., S. Dak., east. Colo., N. Mex., and south. Ariz.

Pompilus marcidus Smith, 1862. Jour. Ent. 1: 395. ♀.

Pompilus willistoni Patton, 1879. U. S. Geol. and Geog. Survey Bul. 5: 352. ♀.

interruptus cressoni (Banks). North. Va. and east. Ohio to Mass. Preys on *Epeira trifolium* Hentz.

Batazonus (!) *interruptus* var. *cressoni* Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 167. ♀ ♂.

interruptus flavopictus (Smith). Tex. (Cameron Co.); Mexico, Cent. Amer.

Pompilus flavopictus Smith, 1862. Jour. Ent. 1: 396. ♀.

interruptus interruptus (Say). Transcont. in L. and U. Austr. Zones, north to N. J., Ohio, Mich., S. Dak., Utah, and Calif. Preys on *Epeira foliata* (Fourc.) and *Argiope aurantia* Lucas.

Ceropales interrupta Say, 1835. Boston Jour. Nat. Hist. 1: 365. ♂.

Pompilus navus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 105. ♀ ♂.

Pompilus ichneumoniformis Patton, 1879. U. S. Geol. Survey Bul. 5: 351. ♀. Preocc.

Pompilus ichneumonoides Dalla Torre, 1897. Cat. Hym., v. 8, p. 295. N. name.
Biology: Peckham and Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 152–153.

Genus TACHYPOMPILUS Ashmead

Tachypompilus Ashmead, 1902. Canad. Ent. 34: 83.
Type: (*Tachypompilus abbotti* Ashmead) = [*Sphex*] *analis* (Fabricius). Monob.
Arachnophroctonus Ashmead, 1902. Canad. Ent. 34: 83. Preocc.
Type: *Ceropales ferruginea* Say. Monob.
Balanoderes Haupt, 1929. Berlin Zool. Mus. Mitt. 15: 119, 155.
Type: *Sphex analis* Fabricius. Desig. by Haupt, 1929.
Afropompilus Arnold, 1936. Transvaal Mus. Ann. 18: 107.
Type: *Pompilus ignitus* Smith. Orig. desig.
Zarachnophroctonus Pate, 1946. Amer. Ent. Soc. Trans. 72: 130. N. name.
Type: *Ceropales ferruginea* Say. Monob.

Wasps of this genus occur around walls, stone piles, and buildings, where they nest in crevices, supplying the nest with Lycosid and Pisaurid spiders; they also visit flowers.

ferrugineus burrus (Cresson). Cent. and south. Tex.; east. Mexico.
Pompilus torridus var. *burrus* Cresson, 1869. Boston Soc. Nat. Hist. Proc. 12: 371. ♀.
Arachnophroctonus ferrugineus var. *annexus* Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 168. ♀.

ferrugineus ferrugineus (Say). L. and U. Austr. Zones, east. Tex. and Fla. to N. J., Ohio, Minn., and Colo.
Ceropales ferruginea Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 334. ♂.
Biology: Rau and Rau, 1917. Wasp Studies Afield, pp. 78–83.—Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 12.

ferrugineus nigrescens (Banks). North. Va. and west. N. Y. to N. H.
Arachnophroctonus ferrugineus var. *nigrescens* Banks, 1944. Harvard Univ., Mus. Compar. Zool. 94: 169. ♀ ♂.

ferrugineus yavapai Evans. L. Sonor. Fauna, west. Tex. to south. Calif.; west. Mexico.
Arachnophroctonus ferrugineus var. *unicolor* Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 168. ♀. Preocc.
Tachypompilus ferrugineus yavapai Evans, 1950. Amer. Ent. Soc. Trans. 75: 263. N. name.

torridus torridus (Smith). South. parts of Tex., N. Mex., Ariz., and Calif.; Mexico.
Pompilus torridus Smith, 1862. Jour. Ent. 1: 396. ♀.

torridus unicolor (Banks). L. and U. Sonor. Faunas, Calif. and Utah to Wyo., Idaho, and B. C.
Arachnophroctonus unicolor Banks, 1919. Harvard Univ., Mus. Compar. Zool. Bul. 63: 239, 240. ♀.
Arachnophroctonus latifrons Banks, 1939. Canad. Ent. 71: 229. ♀ ♂.

Genus ANOPLIUS Dufour

Subgenus LOPHOPOMPILUS Radoszkowski

Lophopompilus Radoszkowski, 1887. Soc. Ent. Rossica Horae 21: 42.
Type: (*Pompilus grandis* Eversmann) =[*Sphex*] *samariensis* Pallas. Desig. by Ashmead, 1902.
Pompilogaster Howard, 1901. Insect Book, pl. V. fig. 19.
Type: *Pompilus aethiops* Cresson. Monob.
Pompilogastra Ashmead, 1902. Canad. Ent. 34: 81.
Type: *Pompilus aethiops* Cresson. Monob.

Revision: Regan, 1923. Ent. Soc. Amer. Ann. 16: 177–194.

Wide-ranging, strong-flying species which prey chiefly on Lycosidae and nest in tunnels in sand or soft earth. They are frequent visitors to flowers and occasionally come to light at night.

aethiops (Cresson). Transcont., L. Austr. to Transit. Zones. Fields and meadows; on *Solidago* and other flowers.
Pompilus aethiops Cresson, 1865. Ent. Soc. Phila. Proc. 4: 451. ♀.
Psammochares ilione Banks, 1910. Psyche 17: 249. ♀.
Lophopompilus azotus Banks, 1929. Psyche 36: 326. ♀. N. syn.

atrox (Dahlbom). L. and U. Austr. Zones, N. Mex. and Fla. to S. Dak., Ont., and Mass.
Pompilus atrox Dahlbom, 1845. Hym. Europaea, v. 1, p. 63. ♀.
Biology: Peckham and Peckham, 1900. Wis. Nat. Hist. Soc. Bul. 1: 87.

bengtssoni (Regan), n. comb. Austrorip. and Carol. Faunas, Tex. and Fla. to S. Dak., Mich. and Mass.
Lophopompilus bengtssoni Regan, 1923. Ent. Soc. Amer. Ann. 16: 185, 186. ♀ ♂.

carolinus (Banks), n. comb. Alleghanian Fauna, south. Que. to north. Ga. Open woodlands, and on flowers of *Daucus carota*.
Lophopompilus carolina Banks, 1921. Ent. Soc. Amer. Ann. 14: 20. ♀.

cleora (Banks), n. comb. Transcont. in L. and U. Austr. Zones. Sandy places.
Psammochares cleora Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 105. ♀.

Subgenus NOTIOCHARES Banks

Notiochares Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 107, 108.
Type: (***Pompilus philadelphicus*** Lepeletier) = [***Pompilus***] ***amethystinus atramentarius*** (Dahlbom). Monob.

amethystinus amethystinus (Fabricius), n. comb. Argentina and Bolivia to Mexico and the Antilles; south. Fla., south. Ariz., and south. Calif.
Sphex amethystina Fabricius, 1793. Ent. System. Emend. et Aucta, v. 2, p. 210. ♀.
Pompilus anceps Cresson, 1865. Ent. Soc. Phila. Proc. 4: 130. ♂. Preocc. N. syn.
Pompilus cubensis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 93. N. name. N. syn.
Psammochares philadelphicus var. ***floridensis*** Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 106. ♀. N. syn.

amethystinus atramentarius (Dahlbom). Austrorip. and Carol. Faunas, Tex. and Fla. to Nebr., Ohio, and south. N. Y. Preys on *Lycosa;* visits flowers of many kinds.
Pompilus atramentarius Dahlbom, 1845. Hym. Europaea, v. 1, p. 48.
Pompilus philadelphicus Lepeletier, 1845. Hist. Nat. Ins., Hym., v. 3, p. 423. ♀. N. syn.
Pompilus philadelphicus var. ***sericatus*** Cresson, 1872. Amer. Ent. Soc. Trans. 4: 202. ♀. N. syn.
Sericopompilus plutonis Banks, 1911. N. Y. Ent. Soc. Jour. 19: 228. ♂. N. syn.
Notiochares angusticeps Banks, 1939. Canad. Ent. 71: 227. ♀. N. syn.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 13–15.

Subgenus ANOPLIODES Banks

Anopliodes Banks, 1939. Canad. Ent. 71: 225, 226.
Type: (***Anopliodes modestus*** Banks) = [***Anoplius***] ***bolli*** Banks Monob.

bolli Banks. Tex. to Kans., Mo., and N. J.
Anoplius bolli Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 104. ♂.
Anopliodes modestus Banks, 1939. Canad. Ent. 71: 226. ♀. N. syn.

parsonsi (Banks), n. comb. Cuba; south. Fla.
Psammochares parsonsi Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 183. ♀.

Subgenus ARACHNOPHROCTONUS Howard

Arachnophroctonus Howard, 1901. Insect Book, pl. VII, figs. 11, 14.
Type: (*Sphex tropica* Fabricius) = [*Psammochares*] *marginalis* (Banks). Desig. by Pate, 1946.
Arachnophila Ashmead, 1902. Canad. Ent. 34: 86. Preocc. N. syn.
Type: (*Pompilus divisus* Cresson) = [*Pompilus*] *semirufus* (Cresson). Monob.
Arachnodaicter Pate, 1946. Amer. Ent. Soc. Trans. 72: 74. N. name. N. syn.

The wasps of this group inhabit sandy places, where they nest in short burrows in the earth, stocking their burrows with errant spiders of several families. They visit flowers of many kinds.

americanus americanus (Palisot de Beauvois), n. comb. Cent. Tex. and north. Ga. to S. Dak., Minn., south Ont., and southeast. N. Y.
Pompilus americanus Palisot de Beauvois, 1805. Ins. Afr. Amer., p. 117. ♀.
Pompilus plebejus Dahlbom, 1845. Hym. Europaea, v. 1, p. 60. ♀.
Psammochares albomarginatus Banks, 1910. N. Y. Ent. Soc. Jour. 18: 114. ♂. N. syn.
Pompiloides agnema Brimley, 1928. Elisha Mitchell Sci. Soc. Jour. 43: 204. ♂. N. syn.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 10–11.

americanus juxtus (Cresson), n. comb. Tropical and L. Austr. Zones, Greater Antilles and Cent. America to Calif., Utah. Kans., and Ala.
Pompilus juxtus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 128. ♀.
Pompilus subargenteus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 129. ♂. N. syn.
Anoplius puella Banks, 1941. Canad. Ent. 73: 121. ♂. N. syn.

americanus trifasciatus (Palisot de Beauvois), n. comb. Austrorip. Fauna, Ga. and Fla.
Pompilus trifasciatus Palisot de Beauvois, 1805. Ins. Afr. Amer., p. 118. ♀.
Psammochares eurydice Banks, 1921. Ent. Soc. Amer. Ann. 14: 19. ♀. N. syn.

apiculatus apiculatus (Smith), n. comb. Tropical and L. Sonor. Zones, Honduras to south. Calif., Ariz., and cent. Tex. Sandy stream-banks.
Pompilus apiculatus Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 157. ♀.

apiculatus autumnalis (Banks), n. comb. Austrorip. and Carol. Faunas. Tex. and Fla. to Ga., west. N. Y., south. Ont., Minn., and Kans.
Pompiloides autumnalis Banks, 1914. N. Y. Ent. Soc. Jour. 22: 301. ♀.

apiculatus pretiosus (Banks), n. comb. Coastal plain, Fla. to Maine. Sand banks, especially along bodies of water.
Psammochares pretiosa Banks, 1910. N. Y. Ent. Soc. Jour. 18: 119. ♂.
Pompiloides autumnalis var. *atlanticus* Banks, 1914. N. Y. Ent. Soc. Jour. 22: 301. ♀. N. syn.

bellicosus (Banks), n. comb. L. Austr. Zone, Ariz. to Fla. and south. N. J. On flowers of many kinds.
Psammochares bellicosus Banks, 1911. N. Y. Ent. Soc. Jour. 19: 224. ♂.
Lophopompilus autilone Banks, 1919. Canad. Ent. 51: 82. ♂.

marginalis (Banks), n. comb. Ariz., Tex., and Fla. to Utah, Man., south. Ont., and Mass. Preys on *Lycosa* spp. and *Habronattus coronatus* (Hentz); visits flowers of many kinds.
Sphex tropica Fabricius, 1775. Systema Ent., p. 350. ♀. Preocc.
Psammochares marginalis Banks, 1910 (June). N. Y. Ent. Soc. Jour. 18: 118. ♀ ♂. N. syn.
Psammochares castella Banks, 1910 (Dec.). Psyche 17: 248. ♂. N. syn.
Psammochares fabricii Banks, 1933. Psyche 40: 6. N. name.
Biology: Rau and Rau, 1918. Wasp Studies Afield, pp. 45–58.

moestus (Banks), n. comb. L. Sonor. Fauna. east. Tex. to southeast. Ariz.; Mexico.
Pompiloides moestus Banks, 1911. N. Y. Ent. Soc. Jour. 19: 226. ♀.
Anoplius comanche Banks, 1941. Canad. Ent. 73: 121. ♂. N. syn.

relativus (Fox). Transcont. in L. and U. Austr. Zones. Sandy places; preys on *Agelenopsis naevia* (Walckenaer) and other spiders; visits flowers of many kinds.
Pompilus relativus Fox, 1893. Canad. Ent. 25: 114. ♀.
Psammochares (Allocyphonyx) hesione Banks, 1910. Psyche 17: 250. ♂. N. syn.
Psammochares difficilis Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 105. ♀. N. syn.
Anoplius confraternus Banks, 1926. Canad. Ent. 58: 201. ♀. N. syn.
Psammochares henshawi Banks, 1939. Canad. Ent. 71: 226. ♀. N. syn.

semirufus (Cresson), n. comb. Tex. and Fla. to Mont., Man., and N. B. Sandy places; visits honeydew.
Pompilus semirufus Cresson, 1867. Amer. Ent Soc. Trans. 1: 100. ♀.
Pompilus divisus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 100. ♀. N. syn.

xerophilus Evans. L. Sonor. Fauna, N. Mex. and Baja Calif. to cent. Calif. and Utah. On *Acacia greggii*.
Anoplius xerophilus Evans, 1947. Ent. News 58: 10. ♀ ♂.

Subgenus POMPILINUS Ashmead

Psammochares Latreille, 1796. Précis Caract. Gen. Ins., p. 115. Suppressed by Internatl. Comn. Zool. Nomencl. Op. 166, 1945.
Pompilinus Ashmead, 1902. Canad. Ent. 34: 85.
Type: ***Pompilus cylindricus*** Cresson. Monob.
Anopliella Banks, 1939. Canad. Ent. 71: 225, 227.
Type: ***Pompilus tenebrosus*** Cresson. Orig. desig.
Revision: Dreisbach, 1949. Ent. Amer. (n. s.) 29: 12–58.

Wasps of this group inhabit gardens, waste places, clay banks, and sandy areas; they prey upon a wide variety of spiders and nest in short galleries in the earth.

bequaerti (Dreisbach), n. comb. Tex. and Fla. to Alta., Minn., Mich., and N. C.
Pompilinus bequaerti Dreisbach, 1949. Ent. Amer. (n. s.) 29: 16. ♂.

californiae Evans. L. Sonor. Fauna, N. Mex. to Calif.; Mexico. Has been taken on *Helianthus* and *Tamarix*.
Anoplius (Pompilinus) californiae Evans, 1948. Pan-Pacific Ent. 24: 128. ♀ ♂.

clystera (Banks), n. comb. L. and U. Sonor. Fauna, Tex. and south. Calif. to Colo. and cent. Calif.
Pompiloides clystera Banks, 1914. N. Y. Ent. Soc. Jour. 22: 302. ♂.

cylindricus (Cresson). Ariz., Tex., and N. C. to cent. Oreg., N. W. T., south. Ont., and Conn. Females in sandy places; males on flowers of various kinds.
Pompilus cylindricus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 92. ♂.
Arachnophila brevihirta Banks, 1945. Psyche 52: 105. ♀. N. syn.
Pompilinus truncatus Dreisbach, 1949. Ent. Amer. (n. s.) 29: 15. ♂. N. syn.
Pompilinus subtruncatus Dreisbach, 1949. Ent. Amer. (n. s.) 29: 17. ♂. N. syn.
Pompilinus hispidus Dreisbach, 1949. Ent. Amer. (n. s.) 29: 23. ♂. N. syn.

estellina (Banks), n. comb. U. Sonor. and Transit. Faunas, Calif. and N. Mex. to Alta.
Pompiloides estellina Banks, 1914. N. Y. Ent. Soc. Jour. 22: 303. ♂ (♀ misdet.).

fraternus (Banks), n. comb. L. and U. Austr. Zones, Tex. and Fla. to Colo., Nebr., and southeast. N. Y.
Lophopompilus fraternus Banks, 1941. Canad. Ent. 73: 120. ♀.
Pompilinus dowi Dreisbach, 1949. Ent. Amer. (n. s.) 29: 12. ♂. N. syn.

grandiflexionis Evans. West. Tex. and N. Mex.
Anoplius (*Pompilinus*) *grandiflexionis* Evans, 1950. Kans. Ent. Soc. Jour. 23: 84. ♀ ♂.

insolens (Banks), n. comb. Transcont. in U. Austr. and Transit. Zones. On flowers of many kinds.
Pompiloides insolens Banks, 1911. N. Y. Ent. Soc. Jour. 19: 226. ♂.

krombeini Evans. Austrorip. Fauna, Fla. to N. J.
Anoplius (*Pompilinus*) *krombeini* Evans, 1950. Kans. Ent. Soc. Jour. 23: 88. ♀ ♂.

marginatus (Say). L. Austr. to Canad. Zone, Ariz., Colo., and Alta. east to the Atlantic. Preys on a great variety of spiders; visits flowers of many kinds.
Pompilus marginatus Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 333. ♀.
Pompilus (*Miscus*) *petiolatus* Say, 1835. Boston Jour. Nat. Hist. 1: 305. ♀.
Pompiloides reducta Banks, 1914. N. Y. Ent. Soc. Jour. 22: 302. ♀. N. syn.
Pompiloides hageni Banks, 1919. Harvard Univ., Mus. Compar. Zool. Bul. 63: 235. ♀. N. syn.
Biology: Peckham and Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 144-152. — Hartman, 1905. Tex. Univ. Bul. 65: 52–54.—Rau and Rau, 1918. Wasp Studies Afield, pp. 58–63.—Evans, 1948. Ent. News 59: 183–184.

percitus Evans. Austrorip. and Carol. Faunas, Tex. to Mass.
Anoplius (*Pompilinus*) *percitus* Evans, 1950. Kans. Ent. Soc. Jour. 23: 85. ♀ ♂.

rectangularis (Dreisbach), n. comb. Tex. and N. C. to Colo., Minn., south. Ont., and Vt.
Pompilinus rectangularis Dreisbach, 1949. Ent. Amer. (n. s.) 29: 18. ♂.

splendens (Dreisbach), n. comb. L. and U. Austr. Zones, Ga., Tex., and Ariz. to Alta., Man., Ont., and Maine.
Pompilinus splendens Dreisbach, 1949. Ent. Amer. (n. s.) 29: 20. ♂.
Pompilinus pseudoreductus Dreisbach, 1949. Ent. Amer. (n. s.) 29: 21. ♂. N. syn.
?Pompilinus ohioensis Dreisbach, 1949. Ent. Amer. (n. s.) 29: 24. ♂. N. syn.

stenotus (Banks), n. comb. South. Fla.
Pompiloides stenotus Banks, 1914. N. Y. Ent. Soc. Jour. 22: 302. ♂.

subcylindricus (Banks), n. comb. L. Austr. to Transit. Zones, Fla., Tex., and N. Mex. to Utah, Minn., Que., and Vt. Sandy places; preys on *Xysticus gulosus* Keyserling; visits flowers, especially Umbelliferae.
Pompiloides subcylindricus Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 103. ♀ ♂.

tenebrosus (Cresson). Transcont., Canad. and Transit. Zones, entering U. Austr. Preys on Lycosidae.
Pompilus tenebrosus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 453. ♀.
Pompilus compactus Provancher, 1895. Nat. Canad. 22: 111. ♀. N. syn.
Pompiloides canadensis Banks, 1919. Canad. Ent. 51: 82. ♂.

texanus (Dreisbach), n. comb. East. Tex.
Pompilinus texanus Dreisbach, 1949. Ent. Amer. (n. s.) 29: 14. ♂.

Subgenus ANOPLIUS Dufour

Anoplius Dufour, 1834. Soc. Ent. France Ann. 2: 483.
Type: (*Sphex nigra* Fabricius) = [*Sphex*] *nigerrima* (Scopoli). Desig. by Fox, 1901.
Pompilioides Radoszkowski, 1887. Soc. Ent. Rossica Horae 21: 94.
Type: *Pompilioides unicolor* Radoszkowski. Desig. by Ashmead, 1902.
Aphiloctenus Ashmead, 1902. Canad. Ent. 34: 87.
Type: *Pompilus virginiensis* Cresson. Monob.

Wasps of this subgenus nest in ready-made cavities of various kinds, and occupy a variety of habitats.

depressipes Banks. Carol. and Alleghanian Faunas, Ala. and Ga. to Wis. and Maine. Preys on *Dolomedes* along water-courses.

Anoplius depressipes Banks, 1919. Canad. Ent. 51: 81. ♀.
Biology: Evans, 1949. Ent. Soc. Wash. Proc. 51: 206.

fulgidus (Cresson). Mexico and Greater Antilles; south. Fla., south. Tex., south. Utah, and south. Calif.
Pompilus fulgidus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 131. ♀.
Pompilus aeneopurpureus Fox, 1891. Amer. Ent. Soc. Trans. 18: 339. ♀ ♂. N. syn.

illinoensis (Robertson). U. Austr. and Transit. Zones, Ga., Tex., and Colo. to Mont., Mich., and Que. Visits flowers of Umbelliferae.
Pompilus illinoensis Robertson, 1901. Amer. Ent. Soc. Trans. 27: 202. ♀ ♂.

imbellis Banks. Transcont. in U. Austr. and Transit. Zones. Visits flowers of *Heracleum* and *Eryngium*.
Anoplius imbellis Banks, 1944. Harvard Univ., Mus. Compar. Zool. Bul. 94: 169. ♀ ♂.

ithaca (Banks). Transcont. in Transit. and U. Austr. Zones. Occurs along rocky stream-beds, preying on *Pardosa lapidicina* Emerton and nesting under stones.
Psammochares ithaca Banks, 1911. N. Y. Ent. Soc. Jour. 19: 224. ♀.
Anoplius selkirkensis Banks, 1919. Harvard Univ., Mus. Compar. Zool. Bul. 63: 234. ♀ ♂. N. syn.
Biology: Evans, 1948. Ent. News 59: 180–183.

nigerrimus (Scopoli). Holarctic; transcont. in Canad. Zone, entering Transit. in the East. Preys chiefly on Lycosidae.
Sphex nigerrima Scopoli, 1763. Ent. Carniolica, p. 295. ♀?.
Sphex nigra Fabricius, 1775. Systema Ent., p. 350. ♀?.
Anoplius wheeleri Banks, 1939. Canad. Ent. 71: 228. ♀ ♂. N. syn.

ventralis tarsatus Banks. L. Sonor. to Transit. Fauna, west. Tex. and Calif. to B. C. and Alta. Has become established in the Hawaiian Islands.
Anoplius tarsatus Banks, 1919. Harvard Univ., Mus. Compar. Zool. Bul. 63: 233. ♀.
Anoplius papago Banks, 1941. Canad. Ent. 73: 120. ♂. N. syn.

ventralis ventralis (Banks). Austrorip. to Alleghanian Fauna, Tex. and Fla. to Man., Ont., and N. S.
Psammochares ventralis Banks, 1910. N. Y. Ent. Soc. Jour. 18: 120. ♂.
virginiensis (Cresson). N. S., Sask., and B. C., south to Wash., Colo., Mo., and Ga. Inhabits open woodlands.
Pompilus virginiensis Cresson, 1867. Amer. Ent. Soc. Trans. 1: 92. ♂.

Genus POMPILUS Fabricius

The species of this genus prey upon errant spiders, principally of the families Lycosidae, Salticidae, and Pisauridae; they nest in sand or soft earth so far as is known.

Subgenus POMPILUS Fabricius

Pompilus Fabricius, 1798. Sup. Ent. System., p. 212.
Type: *Pompilus pulcher* Fabricius. Desig. by Internatl. Comn. Zool. Nomencl. Op. 166, 1945.

expulsus Schulz. Mexico; south. Ariz.
Pompilus connexus Fox, 1893. Calif. Acad. Sci. Proc. (2) 4: 23. ♀. Preocc.
Pompilus expulsus Schulz, 1906. Spolia Hym., p. 170. N. name.
Psammochares arizonica Banks, 1910. N. Y. Ent. Soc. Jour. 18: 115. ♀. N. syn.
Pompilus rubriventris Bradley, 1944. Acad. Nat. Sci. Phila., Notulae Nat. 145, p. 9. N. name. N. syn.

Subgenus HESPEROPOMPILUS Evans

Hesperopompilus Evans, 1948. Ent. Soc. Wash. Proc. 50: 141.
Type: *Pompilus orophilus* Evans. Orig. desig.

jacintoensis Evans. Calif. (San Jacinto and Pomona Mts.).
Pompilus (*Hesperopompilus*) *jacintoensis* Evans, 1948. Ent. Soc. Wash. Proc. 50: 146. ♀ ♂.

orophilus Evans. Transit. Fauna, Alta. to N. Mex. and Calif.
Pompilus orophilus Evans, 1947. Ent. News 58: 14. ♀.

rufopictus Evans. Calif. (Riverside Co.).
Pompilus (*Hesperopompilus*) *rufopictus* Evans, 1948. Ent. Soc. Wash. Proc. 50: 144. ♀.

Subgenus AMMOSPHEX Wilcke

Psammochares Gibbus-group Haupt, 1927. Deut. Ent. Ztschr. Beih., pp. 154, 162, 200.
Ammosphex Wilcke, 1942. Ent. Ber. 11: 25.
Type: *Pompilus unguicularis* Thomson. Orig. desig.
Anopompilinus Dreisbach, 1949. Ent. Amer. (n. s.) 29: 7, 10, 11. N. syn.
Type: *Anopompilinus michiganensis* Dreisbach. Monob.

angularis (Banks), n. comb. Transcont, in Transit. and U. Austr. Zones. Sandy areas; visits honeydew and flowers of *Cleome serrulata*.
Psammochares angularis Banks, 1910. N. Y. Ent. Soc. Jour. 18: 115. ♂.

imbecillus (Banks), n. comb. Transcont. in Transit. Zone, Que. and B. C. to N. Mex. and Va. Open woodlands or woodland borders; on flowers of *Ceanothus*.
Anopiella imbecilla Banks, 1939. Canad. Ent. 71: 227. ♀.
Anopompilinus coloradensis Dreisbach, 1950. Amer. Midland Nat. 42: 724, 737. ♂. N. syn.
Anopompilinus banksi Dreisbach, 1950. Amer. Midland Nat. 42: 728, 737. ♂. N. syn.

luctuosus Cresson. Transcont. in Canad. Zone, entering Transit. Zone in West.
Pompilus luctuosus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 452. ♀.
Anopompilinus hirsutus Dreisbach, 1950. Amer. Midland Nat. 42: 733, 737. ♂. N. syn.
Anopompilinus mainensis Dreisbach, 1950. Amer. Midland Nat. 42: 733, 737. ♂. N. syn.

michiganensis (Dreisbach), n. comb. Canad. and Transit. Zones, N. B., Man., and Yukon to Colo., Minn., and north. Ga.
Anopompilinus michiganensis Dreisbach, 1949. Ent. Amer. (n. s.) 29: pl. I, fig. 3.
Anopompilinus dakota Dreisbach, 1950. Amer. Midland Nat. 42: 728, 737. ♂. N. syn.
Anopompilinus aspinosus Dreisbach, 1950. Amer. Midland Nat. 42: 730, 738. ♂ ♀. N. syn.

occidentalis (Dreisbach), n. comb. Transit. Fauna, B. C. and Alta. to Colo. and Calif.
Anopompilinus occidentalis Dreisbach, 1950. Amer. Midland Nat. 42: 726, 736, 738. ♂ ♀.

parvulus (Banks), n. comb. U. Sonor. and Transit. Faunas, N. Mex. and Alta., west to the Pacific.
Pompiloides parvulus Banks, 1911. N. Y. Ent. Soc. Jour. 19: 227. ♀ ♂.
Anopompilinus anomalus Dreisbach, 1950. Amer. Midland Nat. 42: 725, 737. ♂. N. syn.

phoenix Evans. L. Sonor. Fauna, west. Tex. to Calif.
Pompilus (*Ammosphex*) *phoenix* Evans, 1948. Pan-Pacific Ent. 24: 123. ♂ ♀.

solonus (Banks), n. comb. L. and U. Sonor. Faunas, Calif., Colo., and cent. Tex. south into Mexico.
Pompiloides solonus Banks, 1914. N. Y. Ent. Soc. Jour. 22: 303. ♀.

Subgenus ARACHNOSPILA Kincaid

Arachnospila Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 509.

Type: (*Arachnospila septentrionalis* Kincaid) = [*Pompilus*] *fumipennis* Zetterstedt. Monob.

Pycnopompilus Ashmead, 1902. Canad. Ent. 34: 83.
Type: *Pompilus scelestus* Cresson. Monob.

Psammochares Fumipennis-group Haupt, 1927. Deut. Ent. Ztschr. Beih., pp. 154, 162, 195.

arctus Cresson. Transcont. in Canad. and Transit. Zones. Preys on *Arctosa* sp. and *Amaurobius ferox* (Walckenaer).

Pompilus arctus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 453. "♀" = ♂.

Psammochares anoplinus Banks, 1919. Harvard Univ., Mus. Compar. Zool. Bul. 63: 231, 232. ♀. N. syn.

fumipennis eureka (Banks), n. comb. Canad. and Transit. Zones, B. C. and Mont. to Calif. and N. Mex. Preys on *Trochosa pratensis* (Emerton) and probably other Lycosidae.

Psammochares eureka Banks, 1919. Harvard Univ., Mus. Compar. Zool. Bul. 63: 231. ♀ (♂misdet.).

Psammochares catalinae Banks, 1933. Psyche 40: 7. ♀ ♂. N. syn.

fumipennis fumipennis Zetterstedt. Transcont. in Canad. Zone, Alaska, N. W. T., and Labrador to Wash., Alta., N. Dak., and N. Y.; north. Europe.

Pompilus fumipennis Zetterstedt, 1838. Ins. Lapponica., v. 1, p. 438. ♀.

Arachnospila septentrionalis Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 509. ♀. N. syn.

Psammochares lasiope Banks, 1919. Canad. Ent. 51: 81. ♀. N. syn.

scelestus Cresson. Transcont. in U. Austr. and Transit. Zones. Occurs in sandy areas; preys upon Lycosidae, Pisauridae, and Salticidae.

Pompilus scelestus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 451. ♀ ♂.

Psammochares astur Banks, 1911. N. Y. Ent. Soc. Jour. 19: 225. ♀. N. syn.

Psammochares sublaevis Banks, 1921. Ent. Soc. Amer. Ann. 14: 20. ♀. N. syn.

Biology: Peckham and Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 153–163 —Rau and Rau, 1918. Wasp Studies Afield, pp. 64–67.

Subgenus ANOPLOCHARES Banks

Psammochares Spissus-group Haupt, 1927. Deut. Ent. Ztschr. Beih. pp. 153, 162, 188.

Anoplochares Banks, 1939. Canad. Ent. 71: 225, 229.
Type: (*Pompiloides rectus* Banks) = [*Pompilus*] *apicatus* Provancher. Orig. desig.

apicatus Provancher. Newfoundland, Sask., and B. C. south to Ga., Tex., and Calif. Inhabits open woodlands; visits flowers of *Pastinaca* and *Solidago*.

Pompilus apicatus Provancher, 1882. Nat. Canad. 13: 35, 38.

Pompiloides rectus Banks, 1914. N. Y. Ent. Soc. Jour. 22: 303. ♀ ♂. N. syn.

Pompiloides elsinore Banks, 1919. Harvard Univ., Mus. Compar. Zool. Bul. 63: 235, 236. ♀. N. syn.

similaris (Banks), n. comb. Alleghanian and Carol. Faunas, Ont. and New England south to Ga. and west to Ill.

Anoplius similaris Banks, 1919. Canad. Ent. 51: 82. ♀.

Genus APORINELLUS Banks

Aporinellus Banks, 1911. Ent. Soc. Wash. Proc. 13: 238.
Type: *Aporus fasciatus* Smith. Desig. by Banks, 1912.

Ceratopompilus Bradley, 1944. Eos 20: 95, 97. N. syn.
Type: *Pompilus sexmaculatus* Spinola. Orig. desig.

Revision: Bequaert, 1919. Psyche 26: 115–123.

Occur chiefly in sandy places, and visit honeydew and occasionally flowers; prey upon spiders of the family Salticidae.

apicatus (Banks). Transcont. in L. and U. Austr. Zone.
Aporus apicatus Banks, 1910. N. Y. Ent. Soc. Jour. 18: 126. ♂.
Aporinellus laticeps Banks, 1911. N. Y. Ent. Soc. Jour. 19: 230. ♀. N. syn.

banksi Bequaert. Austrorip. and Carol. Faunas, Tex. to Conn.
Aporinellus banksi Bequaert, 1919. Psyche 26: 118. ♀.

completus Banks. Transcont. in U. Austr. and Transit. Zones. Preys on *Habronattus;* visits *Helianthus* and *Daucus carota.*
Aporinellus completus Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 97. ♀.

fasciatus (Smith). Transcont. in L. and U. Austr. Zones. Preys on *Maevia, Phidippus,* and *Attus.*
Aporus fasciatus Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 175. ♂.
Pompilus unionis Dalla Torre, 1897. Cat. Hym., v. 8, p. 330. N. name.
Aporinellus medianus Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 97. ♀. N. syn.
Aporinellus intermedius Banks, 1919. Harvard Univ., Mus. Compar. Zool. Bul. 63: 240. ♀. N. syn.
Aporinellus basalis Banks, 1933. Psyche 40: 3. ♀. N. syn.
Biology: Peckham and Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 55–57.

rufus Banks. Colo., Minn.
Aporinellus rufus Banks, 1911. N. Y. Ent. Soc. Jour. 19: 230. ♀.

semirufus Banks. S. Dak., Alta.
Aporinellus semirufus Banks, 1929. Psyche 36: 326. ♀.

taeniatus (Kohl). Transcont. in L. and U. Austr. Zones. Preys on *Habronattus calcaratus* (Banks).
Pompilus taeniatus Kohl, 1886. Zool.-Bot. Gesell. Wien, Verh. 36: 315. ♀.
Aporus ferrugineipes Viereck, 1906. Amer. Ent. Soc. Trans. 32: 203. ♀. N. syn.
Aporinellus californicus Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 240. ♀. N. syn.
Aporinellus bequaerti Banks, 1933. Psyche 40: 3. ♀. N. syn.

wheeleri Bequaert. Mass., N. C.
Aporinellus wheeleri Bequaert, 1919. Psyche 26: 118. ♀.

Genus ALLOCHARES Banks

Allochares Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 98.
Type: (*Allochares bruesi* Banks) = [*Pompilus*] *azureus* (Cresson). Monob.
Revision: Bradley, 1944. Amer. Ent. Soc. Trans. 70: 148.

azureus (Cresson). Mexico; Transcont. in L. Austr. Zone.
Pompilus (*Agenia*) *azureus* Cresson, 1867. Amer. Ent. Soc. Trans. 1: 131. ♀.
Allochares bruesi Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 98. ♀.

Genus PARACYPHONONYX Gribodo

Paracyphononyx Gribodo, 1884. Mus. Civ. Stor. Nat. Genova Ann. (2) 1: 306.
Type: (*Paracyphononyx melanicrus* Gribodo) = [*Pompilus*] *ruficrus* Klug. Monob.
Schistosalius Saussure, 1892. *In* Grandidier, Hist. Nat. Madagascar, v. 20, Hym. v. 1, p. 313.
Type: *Salius ellioti* Saussure. Desig. by Ashmead, 1902.
Paracyphonyx Ashmead, 1902. Canad. Ent. 34: 81.
Type: *Paracyphononyx metemmensis* Magretti. Monob. and orig. desig.
Allocyphonyx Ashmead, 1902. Canad. Ent. 34: 136. N. syn.
Type: (*Pompilus maurus* Cresson) = [*Anoplius*] *funereus* (Lepeletier). Monob. and orig. desig.
Dicyrtomus Haupt, 1927. Deut. Ent. Ztschr. Beih., pp. 150, 256.
Type: *Pompilus ruficrus* Klug. Orig. desig.

funereus (Lepeletier), n. comb. L. and U. Austr. Zones, Ariz., Tex. and Fla. to Utah, S. Dak., N. Y., and Mass. Visits flowers of many kinds.
Anoplius funereus Lepeletier, 1845. Hist. Nat. Ins., Hym., v. 3, p. 449. ♂.
Pompilus maurus Cresson, 1867. Amer. Ent. Soc. Trans. 1: 88. ♀ ♂. N. syn.
Psammochares (Allocyphonyx) harpalyce Banks, 1910. Psyche 17: 250. ♂. N. syn.

Pompilidae of Uncertain Position

Pompilus ambiguus Dahlbom. "America."
Pompilus ambiguus Dahlbom, 1845. Hym. Europaea, v. 1, p. 452. ♀.

Pompilus ephippiger Smith. "North America."
Pompilus ephippiger Smith, 1855. Cat. Hym. Brit. Mus., v. 3, p. 158. ♀.

Pompilus fiorentinii Dalla Torre. "Illinois" and "Mexico."
Pompilus brevicornis Taschenberg, 1869. Ztschr. Gesell. Naturw. 34: 50. ♂ ♀. Preocc.
Pompilus Fiorentinii Dalla Torre, 1897. Cat. Hym., v. 8, p. 289. N. name.

Pompilus obscurus Dahlbom. "America."
Pompilus obscurus Dahlbom, 1845. Hym. Europaea, v. 1, p. 449.

Pompilus semipartitus Dalla Torre. "Philadelphia."
Pompilus bipartitus Lepeletier, 1845. Hist. Nat. Ins. Hym., v. 3, p. 439. ♀. Preocc.
Pompilus semipartitus Dalla Torre, 1897. Cat. Hym., v. 8, p. 321. N. name.

Superfamily SPHECOIDEA[39]

Taxonomy: Ashmead, 1899. Canad. Ent. 31: 145–155, 161–174, 212–225, 238–251, 291–300, 322–330, 345–357 (keys to families and genera, and lists of No. Amer. spp.).—H. S. Smith, 1908. Nebr. Univ., Studies 8: 323–410, 1 pl. (keys to Nebr. spp.).—Mickel, 1918 (1917). Nebr. Univ., Studies 17: 342–456, 2 figs. (keys to Nebr. spp.).

Family AMPULICIDAE[40]

Kohl, in 1893 (K. K. Naturhist. Hofmus. Ann. 8: 455–516, 3 pls.), presented generic diagnoses, a key to and descriptions of the species of *Ampulex* known to him, and copies of the original descriptions of the other species of Ampulicidae.

So far as is known, the species of this family nest in twigs, under bark, and under leaf litter on the ground, and provision their nests with immature cockroaches.

Genus AMPULEX Jurine

Subgenus AMPULEX Jurine

Ampulex Jurine, 1807. Nouv. Meth. Class. Hym. Dipt., p. 132.
Type: ***Sphex compressa*** Fabricius. Desig. by Audouin, 1822.

The typical subgenus does not occur in North America.

[39] This section is by Karl V. Krombein with the following exceptions: The tribes Larrini and Tachytini by G. E. Bohart; the tribes Philanthini, Bembicini, and Oxybelini by B. D. Burks; the subfamily Sphecinae by W. C. Murray; the tribe Cercerini by H. A. Scullen; and the genus *Astata* by Henry Townes.

The sections by B. D. Burks and Karl V. Krombein were to have been done originally by another contributor. A few months prior to the deadline for submission of the manuscript it was learned that he would be unable to participate. Accordingly little time was available for studying specimens for possible new synonymy and for obtaining further distributional data.

[40] By Karl V. Krombein, U. S. Bureau of Entomology and Plant Quarantine.

Subgenus RHINOPSIS Westwood

Rhinopsis Westwood, 1844. Arcana Ent., v. 2, p. 68.
Type: (***Rhinopsis Abbottii*** Westwood)=***Ampulex canaliculata*** Say. Monob.

canaliculata Say. Conn. south to Ga.; Ohio, Wis., Mo., Kans.; in open woods. Provisions nests in twigs with *Ischnoptera* and *Parcoblatta*.
Ampulex canaliculatus Say, 1823. West. Quart. Rptr. 2: 76.
Rhinopsis Abbottii Westwood, 1844. Arcana Ent., v. 2, p. 68, pl. 65, fig. 5. ♀.
Ampulex pensylvanicus Haldeman, 1849. Acad. Nat. Sci. Phila. Proc. 4: 203.
Rhinopsis melanognatha Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 464. "♀"=♂.
Taxonomy: Schulz, 1911. Zool. Ann. 4: 149–152.—Bradley, 1934. Ent. News 45: 32–33.
Biology: Williams, 1929. Hawaii. Ent. Soc. Proc. 7: 318–329, 10 figs.

ferruginea Bradley. Tex.
Ampulex (Rhinopsis) ferruginea Bradley, 1934. Ent. News 45: 274. ♂.
Taxonomy: Strandtmann, 1943. Ent. Soc. Amer. Ann. 36: 46–48, ♀.

Genus DOLICHURUS Latreille

Dolichurus Latreille, 1809. Gen. Crust. Ins., v. 4, p. 387.
Type: ***Pompilus corniculus*** Spinola. Monob.
Thyreosphex Ashmead, 1904. Canad. Ent. 36: 282.
Type: ***Thyreosphex Stantoni*** Ashmead. Monob.

greenei Rohwer. Ont. south to Fla. in coastal states. Provisions nests under leaf litter in woods with *Parcoblatta*.
Dolichurus greenei Rohwer, 1916. Ent. Soc. Wash. Proc. 18: 212. ♀.
Taxonomy: Bradley, 1934. Ent. News 45: 33–34, ♂.

Family SPHECIDAE

Subfamily ASTATINAE

Catalog: Maidl and Klima, 1939. Hym. Cat., Pars 8, Sphecidae, pp. 7–29.

Genus DIPLOPLECTRON Fox[41]

Diploplectron Fox, 1893. Amer. Ent. Soc. Trans. 20: 38.
Type: ***Liris ?brunneipes*** Cresson. Monob.
Taxonomy (keys to spp.): Ashmead, 1899. Ent. News 10: 55–56.—Rohwer. 1909. Amer. Ent. Soc. Trans. 35: 123–124.—Krombein, 1939. Brooklyn Ent. Soc. Bul. 34: 138–139.

Williams, in 1946 (Hawaii. Ent. Soc. Proc. 12: 648), records two undetermined California species as preying on nymphs of *Sphragisticus nebulosus* (Fall.), and on adults of *Rhyparochromus chiragra californicus* Van D. and nymphs of ?*Emblethis vicarius* Horv., respectively.

ashmeadi Rohwer. Colo., Idaho.
Diploplectron ashmeadi Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 122. ♂.

brunneipes (Cresson). Colo., Nev., Idaho, Calif.
Liris ? brunneipes Cresson, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. iii. ♀ (misdet. in part), ♂.
Diploplectron bidentatus Ashmead, 1899. Ent. News 10: 56. "♀"=♂. N. syn.
Diploplectron foxii Ashmead, 1899. Ent. News 10: 56. ♀. N. syn.
Diploplectron fossor Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 120. ♀. N. syn.

[41] By Karl V. Krombein, U. S. Bureau of Entomology and Plant Quarantine.

Diploplectron bidentatiformis Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 121. ♂. N. syn.
Taxonomy: Krombein, 1939. Brooklyn Ent. Soc. Bul. 34: 138.

cressoni Rohwer. Colo. (Boulder).
Diploplectron cressoni Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 123. ♀.
Diploplectron relativus Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 123. ♀.
Taxonomy: Krombein, 1939. Brooklyn Ent. Soc. Bul. 34: 138.

ferrugineus Ashmead. Canada (Toronto). Type locality erroneously stated as Colorado.
Diploplectron ferrugineus Ashmead, 1899. Ent. News 10: 56 (as ***ferrugilous***, typ. err., on p. 55). "♀"=♂.

kantsi Pate. Tex. (El Paso Co.).
Diploplectron kantsi Pate, 1941. Ent. News 52: 6. ♂.

peglowi Krombein. N. Y. (Oswego Co.).
Diploplectron peglowi Krombein, 1939. Brooklyn Ent. Soc. Bul. 34: 136. ♀ ♂.

reticulatus Williams. Ariz.
Diploplectron reticulatus Williams, 1946. Hawaii. Ent. Soc. Proc. 12: 648. ♂.

rufoantennatus Rohwer. Colo.
Diploplectron rufoantennatus Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 120. ♂.

vierecki Pate. Tex. (El Paso Co.).
Diploplectron vierecki Pate, 1941. Ent. News 52: 4. ♂.

Genus ASTATA Latreille[42]

Revisions: Fox, 1892. Canad. Ent. 24: 232–235.—Fox, 1894 (1893). Acad. Nat. Sci. Phila Proc., pp. 539–548.

Members of this genus provision their nests with Hemiptera, especially Pentatomidae and Lygaeidae.

Subgenus ASTATA Latreille

Astata Latreille, 1796. Précis Caract. Gen. Ins., p. xiii. (Spelled ***Astatus*** on p. 114.)
Type: (***Tiphia abdominalis*** Panzer)=[***Sphex***] ***boops*** (Schrank). Included by Latreille, 1802.
Dimorpha Jurine, 1801. *In* Panzer, Intell. Blatt Litt.—Ztg. Erlangen, v. 1, p. 164.
Type: (***Tiphia abdominalis*** Panzer)=[***Sphex***] ***boops*** (Schrank). Monob.

bicolor Say. Atlantic to 100° W. in U. Austr. and L. Austr. Zones; also Colo. (Boulder).
Astata bicolor Say, 1823. West. Quart. Rptr. 2: 78. ♂ ♀.
Astata terminata Cresson, 1872. Amer. Ent. Soc. Trans. 4: 218. ♂.
Astatus pygidialis Fox, 1892. Canad. Ent. 24: 234. ♀. N. syn.
Biology: Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 92–97, 217, pls. 1, 4, 9.—Peckham, 1905. Wasps, Social and Solitary, pp. 287–289.

bigeloviae Cockerell and Fox. N. Mex. (Mesilla Valley).
Astatus bigeloviae Cockerell and Fox, 1897. Acad. Nat. Sci. Phila. Proc., p. 138. ♀.

leuthstromi Ashmead. Atlantic to 100° W. in Transit. Zone.
Astata leuthstromi Ashmead, 1897. Psyche 8: 129. ♀.
Biology: Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 98.

nevadica Cresson. Oreg., Calif., Idaho., Colo., Mo., Tex., N. Mex., Ariz., Mexico.
Astata nevadica Cresson, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. v. ♀.

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[42] By Henry Townes, North Carolina State College, Raleigh, N. C.

nubecula Cresson. Oreg., Calif., Idaho, Utah, Colo., N. Mex.
Astata nubecula Cresson, 1865. Ent. Soc. Phila. Proc. 4: 466. ♂.
Astata nigropilosa Cresson, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. iv. ♂ ♀.

occidentalis Cresson. Transcont. in U. Austr. and L. Austr. Zones; Mexico. Prey: *Peribalus limbolarius* Stål.
Astata occidentalis Cresson, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. iii. ♂.
Astatus sayi Fox, 1893. Acad. Nat. Sci. Phila. Proc., p. 542. ♀. N. syn.

unicolor Say. Transcont. in U. Austr. and L. Austr. Zones. Prey: *Podisus modestus* (Dallas).
Astata unicolor Say, 1824. *In* Keating, Narr. Long's 2nd Exped. v. 2, p. 337. ♀.
Biology: Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 88–92, pls. 9, 11, 12. —Peckham, 1905. Wasps, Social and Solitary pp. 289–290.—Krombein, 1936. Ent. News. 47: 98.

unicolor var. **rufiventris** Cresson, n. status. This is a ♀ variety occurring with the typical form from the Atlantic to 100° W.
Astata rufiventris Cresson, 1872. Amer. Ent. Soc. Trans. 4: 218. ♀.

Subgenus DRYUDELLA Spinola

Dryudella Spinola, 1843. Soc. Ent. France Ann. (2) 1: 135.
Type: (*Dryudella ghilianii* Spinola) = *Dryudella tricolor* var. *ghilianii* Spinola. Desig. by Pate, 1937.

aspera (Fox). Mont.
Astatus asper Fox, 1893. Acad. Nat. Sci. Phila. Proc., p. 546. ♂ ♀.

asperiformis Rohwer. Colo.
Astata asperiformis Rohwer, 1909. Ent. News 20: 371. ♂.

bella Cresson. Calif., Idaho.
Astata bella Cresson, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. vi. ♂.

caerulea Cresson. Wash., Oreg., Calif., Nev., Colo., Tex.
Astata caerulea Cresson, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. iv. ♂.

elegans Cresson. Wash., Oreg., Nev.
Astata elegans Cresson, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. vi. ♂ ♀.

florissantensis (Rohwer). Colo., N. Mex.
Diploplectron florissantensis Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 122. ♀.

immigrans Williams. Idaho; immigrant to Hawaii. Prey: *Nysius* sp.
Astata immigrans Williams, 1946. Hawaii. Ent. Soc. Proc. 12: 641. ♂ ♀.
Biology: Williams, 1946. Hawaii. Ent. Soc. Proc. 12: 642–648.

millsi (Cockerell). Colo. (Canad. Zone of Long's Peak).
Dryudella millsi Cockerell, 1914. Ent. News 25: 32. ♀.

montana Cresson. Nev., Calif.
Astata montana Cresson, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. v. ♀.

stigma (Panzer). Alaska (Matanuska); Eurasia.
Dimorpha stigma Panzer, 1809. Faunae Ins. German., heft 107, pl. 13.

Subfamily LARRINAE

Revisions: Fox, 1893. Acad. Nat. Sci. Phila. Proc., pp. 467–551.—Williams, 1914 (1913). Kans. Univ. Sci. Bul. 8: 121–213, pls. 22–30 (Kans. spp.).

Tribe MISCOPHINI[43]

The author is indebted to Dr. F. X. Williams for reading over the first draft of this section and for comments on the status of some of the forms.

[43] By Karl V. Krombein, U. S. Bureau of Entomology and Plant Quarantine.

Genus LYRODA Say

Lyrops subg. ***Lyroda*** Say, 1837. Boston Jour. Nat. Hist. 1: 372.
Type: ***Lyrops (Lyroda) subita*** Say. Desig. by Patton, 1880.
Morphota Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 293.
Type: ***Morphota fasciata*** Smith. Desig. by Pate, 1937.
Odontolarra Cameron, 1900. Ann. Mag. Nat. Hist. (7) 5: 35.
Type: ***Odontolarra rufiventris*** Cameron. Monob.

subita (Say). U. S., east of Rocky Mts. Nests in ground and provisions with *Nemobius*.
Lyrops (Lyroda) subita Say, 1837. Boston Jour. Nat. Hist. 1: 372. ♀.
Lyrops (Lyroda) caliptera Say, 1837. Boston Jour. Nat. Hist. 1: 373. *Lapsus* for *subita* (?).
Larrada arcuata Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 293. ♀. N. syn.
Lyroda cockerelli Rohwer, 1909. Ent. News 20: 369. ♂. N. syn.
Biology: Patton, 1892. Ent. News 3: 90.—Peckham and Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 169–171.—Peckham and Peckham, 1905. Wasps, Social and Solitary, pp. 253–255.

triloba (Say). Canada, D. C., Ill., Ind., Kans., La., Tex.
Lyrops (Lyroda) triloba Say, 1837. Boston Jour. Nat. Hist. 1: 372. ♀.

Genus BOTHYNOSTETHUS Kohl

Bothynostethus Kohl, 1883. Zool.-Bot. Gesell, Wien Verh. 33: 344.
Type: ***Bothynostethus Saussurei*** Kohl. Monob.

distinctus Fox. N. J., Md., N. C., S. C., La., Tex., Kans.
Bothynostethus distinctus Fox, 1891. Ent. News 2: 31. ♀ ♂.

Genus PISONOPSIS Fox

Pisonopsis Fox, 1893. Psyche 6: 553.
Type: ***Pisonopsis clypeata*** Fox. Monob.

birkmanni Rohwer. Tex. to south. Calif.
Pisonopsis birkmanni Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 129. ♀.

clypeata Fox. Nev., Calif.
Pisonopsis clypeata Fox, 1893. Psyche 6: 553. ♀ ♂.

triangularis Ashmead. Colo., Idaho.
Pisonopsis triangularis Ashmead, 1899. Ent. News 10: 9. ♀.

Genus PLENOCULUS Fox

Plenoculus Fox, 1893. Psyche 6: 554.
Type: ***Plenoculus davisi*** Fox. Monob.
Pavlovskia Gussakovskij, 1935. Trav. Fil. Acad. Sci. URSS, Tadjikistan 5: 424.
Type: ***Pavlovskia tadzhika*** Gussakovskij. Monob. and orig. desig.
Taxonomy: Ashmead, 1899. Psyche 8: 337–338 (key to spp.).

abdominalis Ashmead. Ariz. (Prescott).
Plenoculus abdominalis Ashmead, 1899. Psyche 8: 339. ♂.

apicalis Williams. Kans., Calif. Nests in sand and provisions with nymphs of *?Psallus seriatus* (Reut.).
Plenoculus apicalis Williams, 1914 (1913) Kans. Univ. Sci. Bul. 8: 175. ♀ ♂.
Biology: Williams, 1914 (1913). Kans. Univ. Sci. Bul. 8: 207–208, pl. 30, fig. 120.

cockerellii Fox. Tex., N. Mex., Ariz.
Plenoculus Cockerellii Fox, 1893. Acad. Nat. Sci. Phila. Proc., p. 538. ♀.

davisi Fox. Conn. to N. J., west to Mont. and Kans.
Plenoculus davisi Fox, 1893. Psyche 6: 554. ♀ ♂.
Plenoculus atlanticus Viereck, 1902. Ent. News 13: 74. ♂. N. syn.

gillaspyi Krombein. Tex. (Williamson Co.).
Plenoculus gillaspyi Krombein, 1938. Ent. Soc. Amer. Ann. 31: 468. ♀.
parvus Fox. N. Mex. (Las Cruces).
Plenoculus parvus Fox, 1897. Ent. News 8: 71. ♀.
propinquus Fox. Colo., N. Mex., Ariz., Calif., Idaho.
Plenoculus propinquus Fox, 1893. Acad. Nat. Sci. Phila. Proc., p. 537. ♀.
Plenoculus propinquus var. *rufescens* Cockerell, 1898. Davenport Acad. Sci. Proc. 7: 144. N. syn.

Genus SOLIERELLA Spinola

Solierella Spinola, 1851. *In* Gay, Hist. Fis. Pol. Chile, Zool., v. 6, p. 349.
Type: *Solierella miscophoides* Spinola. Monob.
Silaon Piccioli, 1869. Soc. Ent. Ital. Bol. 1: 282.
Type: *Silaon compedita* Piccioli. Monob.
Niteliopsis S. S. Saunders, 1873. Ent. Soc. London, Trans., p. 410.
Type: *Niteliopsis pisonoides* S. S. Saunders. Monob.
Ammosphecidium Kohl, 1877. Zool.-Bot. Gesell. Wien Verh. 27: 701.
Type: (*Ammosphecidium Helleri* Kohl)=*Silaon compedita* Piccioli. Monob.
Sylaon Kohl, 1884. Zool.-Bot. Gesell. Wien Verh. 34: 290. Emend. for *Silaon*.
Taxonomy: Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 108–110 (key to spp.).—Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 585 (discussion of generic characters).—Williams, 1950. Calif. Acad. Sci. Proc. (4) 26: 355–417.

There is considerable variation in the nesting sites and prey preferences of the species. Several species nest in soil and provision with nymphs of Oedipodinae(Orthoptera) or Lygaeidae (Hemiptera), whereas other species nest in twigs or deserted galls and provision with nymphs of Lygaeidae. Probably several subgenera should be recognized, but most of the genotypes are not available.

abdominalis Williams. Calif.
Solierella abdominalis Williams, 1950. Calif. Acad. Sci. Proc. (4) 26:381. ♀ ♂.

affinis (Rohwer). Kans., Colo., Idaho.
Niteliopsis affinis Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 113. ♀ ♂.

albipes (Ashmead). Colo., Idaho, Calif.
Pleneculus albipes Ashmead, 1899. Psyche 8: 339. ♂.

arcuata Williams. Calif. (San Rafael, Menlo Park).
Solierella arcuata Williams, 1950. Calif. Acad. Sci. Proc. (4) 26: 378. ♀ ♂.

australis Williams. Calif. (Riverside).
Solierella australis Williams, 1950. Calif. Acad. Sci. Proc. (4) 26: 379. ♀ ♂.

bicolor Williams. Calif.
Solierella bicolor Williams, 1950. Calif. Acad. Sci. Proc. (4) 26: 382. ♀.

blaisdelli (Bridwell). Calif., Idah.
Silaon blaisdelli Bridwell, 1920. Hawaii. Ent. Soc. Proc. 4: 401. ♀.

boharti Williams. Calif.
Solierella boharti Williams, 1950. Calif. Acad. Sci. Proc. (4) 26: 366. ♀.

bridwelli Williams. Calif.
Solierella bridwelli Williams, 1950. Calif. Acad. Sci. Proc. (4) 26: 384. ♀ ♂.

californica Williams. Calif. (Los Angeles).
Solierella californica Williams, 1950. Calif. Acad. Sci. Proc. (4) 26: 387. ♀ ♂.

clypeata Williams. Calif.
Solierella clypeata Williams, 1950. Calif. Acad. Sci. Proc. (4) 26: 376. ♀.

corizi Williams. Calif. (Menlo Park).
Solierella corizi Williams, 1950. Calif. Acad. Sci. Proc. (4) 26: 372. ♀ ♂.

?flavomaculata (Cameron), n. comb. N. Mex. (Santa Fé Mts.).
Allyson flavomaculatus Cameron, 1901. Amer. Ent. Soc. Trans. 27: 314. ♂.
Taxonomy: Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 110.

fossor (Rohwer). Kans., Colo., N. Mex. Prey: Nymph of Oedipodinae.
Niteliopsis foxii Viereck, 1906. Amer. Ent. Soc. Trans. 32: 207. ♀. Preocc.
Niteliopsis fossor Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 116 (as ***fosser***, typ. err., on p. 109). ♀ ♂. N. syn.
Biology: Williams, 1914 (1913). Kans. Univ. Sci. Bul. 8: 209.

foxii (Viereck). N. J. (North Woodbury).
Plenoculus foxii Viereck, 1902. Ent. News 13: 73. ♀ ♂.
Taxonomy: Krombein, 1938. Ent. Soc. Amer. Ann. 31: 469.

inermis (Cresson). Ill. to Tex., west to Idaho and Colo. Nests in ground and provisions with nymphs of Lygaeidae.
Nysson ? ***inerme*** Cresson, 1872. Amer. Ent. Soc. Trans. 4: 224. ♀.
Taxonomy: Ashmead, 1898. Ent. News 9: 189.—Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 110.
Biology: Williams, 1914 (1913). Kans. Univ. Sci. Bul. 8: 208–209, pl. 30, fig. 119.

kansensis (Williams). Kans.
Niteliopsis kansensis Williams, 1914. Kans. Univ. Sci. Bul. 8: 178. ♀.

lasseni Williams. Calif.
Solierella lasseni Williams, 1950. Calif. Acad. Sci. Proc. (4) 26: 366. ♀ ♂.

levis Williams. Calif.
Solierella levis Williams, 1950. Calif. Acad. Sci. Proc. (4) 26: 383. ♀.

lucida (Rohwer.) Colo. (Boulder).
Niteliopsis lucidus Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 109 (as ***licidis***, typ. err., on p. 111). ♂.

major (Rohwer). Wash. (Yakima).
Silaon major Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 247. ♀.

mirifica Pate. Ariz. (Pima Co.).
Solierella (Silaon) mirificus Pate, 1934. Ent. News 45: 243. ♂.

modesta (Rohwer). Colo. (Boulder).
Niteliopsis modestus Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 116. ♂.

nigrans Krombein, n. name. Colo.
Niteliopsis niger Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 115. ♀ ♂, Preocc. by Ashmead, 1899.

nitens Williams. Calif.
Solierella nitens Williams, 1950. Calif. Acad. Sci. Proc. (4) 26: 376. ♀.

peckhami (Ashmead). N. Y. west to Idaho and Colo.; Hawaii. and Marshall Isls. Nests in twigs and provisions with *Pachybrachius* sp. in Wisconsin and *Nysius* sp. in Hawaii.
Plenoculus peckhami Ashmead, 1897. Psyche 8: 130. ♂.
Plenoculus niger Ashmead, 1899. Psyche 8: 339. ♀. N. syn.
Silaon rohweri Bridwell, 1920. Hawaii. Ent. Soc. Proc. 4: 398. N. syn.
Solierella (Silaon) arenaria Krombein, 1939. Brooklyn Ent. Soc. Bul. 34: 139. ♀. N. syn.
Taxonomy: Krombein, 1938. Ent. Soc. Amer. Ann. 31: 469.
Biology: Peckham and Peckham, 1905. Wasps, Social and Solitary, pp. 95–96.—Rau and Rau, 1918. Wasp Studies Afield, pp. 134–135.—Bridwell, 1920. Hawaii. Ent. Soc. Proc. 4: 399–400.—Rau, 1928. Acad. Sci. St. Louis, Trans, 25: 375–378, figs. 48, 49.

plenoculoides plenoculoides (Fox). N. H. to Va., west to Colo. and Tex. Reared from cocoon in goldenrod fall of *Eurosta solidaginis* (Fitch).
Niteliopsis plenoculoides Fox, 1893. Psyche 6: 555. ♀.

plenoculoides similis (Bridwell), n. status. Calif., Oreg.
Silaon similis Bridwell, 1920. Hawaii. Ent. Soc. Proc. 4: 402. ♀.

sayi (Rohwer). Colo., Calif.
Niteliopsis sayi Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 114. ♀ ♂.

sonorae Williams. Calif.
Solierella sonorae Williams, 1950. Calif. Acad. Sci. Proc. (4) 26: 368. ♀.

striatipes (Ashmead). Calif. (San Francisco region).
Niteliopsis striatipes Ashmead, 1899. Ent. News 10: 9. "♀" = ♂.

timberlakei Williams. Calif.
Solierella timberlakei Williams, 1950. Calif. Acad. Sci. Proc. (4) 26: 380. ♀.

vandykei Williams. Calif. (Tahoe).
Solierella vandykei Williams, 1950. Calif. Acad. Sci. Proc. (4) 26: 371. ♀.

vierecki (Rohwer). Colo.
Niteliopsis vierecki Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 112. ♀ ♂.
Niteliopsis parvus Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 113. ♂. N. syn.

Genus MISCOPHUS Jurine

Miscophus Jurine, 1807. Nouv. Meth. Class. Hym. Dipt., p. 206.
Type: *Miscophus bicolor* Jurine. Monob.

americanus Fox. N. Y. south to Fla., Iowa, Mo., Kans., Colo., Tex. Nests in ground and provisions with Epeiridae.
Miscophus americanus Fox, 1890. Ent. News 1: 138. ♀.
Biology: Hartman, 1905. Tex. Acad. Sci. Trans. 7: 69–70.

Genus NITELOPTERUS Ashmead

Nitelopterus Ashmead, 1897. Ent. News 8: 22.
Type: *Nitelopterus slossonae* Ashmead. Monob.
Miscophus subg. *Hypomiscophus* Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 2: 321.
Type: *Miscophus (Hypomiscophus) arenarum* Cockerell. Monob.
Miscophinus Ashmead, 1898. Ent. News 9: 187.
Type: *Miscophinus laticeps* Ashmead. Orig. desig.

aenescens (Bridwell), n. comb. Oreg. (Mt. Jefferson).
Hypomiscophus aenescens Bridwell, 1920. Hawaii. Ent. Soc. Proc. 4: 394. ♂.

arenarum (Cockerell). N. Mex. (Mesilla Park).
Miscophus (Hypomiscophus) arenarum Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 2: 321. ♀.

californicus (Ashmead), n. comb. Calif. (Alameda Co.).
Miscophinus californicus Ashmead, 1898. Ent. News 9: 188. ♂.

cyanurus (Rohwer), n. comb. Colo. (Boulder).
Miscophinus cyanurus Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 125. ♀ ♂.

galei (Rohwer), n. comb. Colo.
Miscophinus galei Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 124. "♀" = ♂.

laticeps (Ashmead). Calif. (Sacramento).
Miscophinus laticeps Ashmead, 1898. Ent. News 9: 188. ♀.

maurus (Rohwer), n. comb. Colo.
Miscophinus maurus Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 126. ♀ ♂.

nigrescens (Rohwer), n. comb. Colo. (Rifle).
Miscophinus nigrescens Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 125. ♀.

nigriceps (Rohwer), n. comb. Calif. (Santa Monica).
Miscophinus nigriceps Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 587. ♀.

slossonae Ashmead. Fla.
Nitelopterus slossonae Ashmead, 1897. Ent. News 8: 23. ♂.

texanus (Ashmead), n. comb. Tex.
Miscophinus texanus Ashmead, 1898. Ent. News 9: 189. ♀.

timberlakei (Bridwell), n. comb. Calif. (Mt. San Jacinto).
Hypomiscophus timberlakei Bridwell, 1920. Hawaii. Ent. Soc. Proc. 4: 394. ♀.

Genus NITELA Latreille

Nitela Latreille, 1809. Gen. Crust. Ins., v. 4, p. 77.
Type: *Nitela Spinolae* Latreille. Monob.
Taxonomy: Pate, 1937. Brooklyn Ent. Soc. Bul. 32: 5–7 (key to spp.).

cerasicola Pate. N. Y. (Long Isl.). Reared from burrow in dead cherry tree.
Nitela cerasicola Pate, 1937. Brooklyn Ent. Soc. Bul. 32: 5. ♀.

floridana Pate. Fla.
Nitela floridana Pate, 1934. Ent. News 45: 241. ♀.

townesorum Krombein. Calif. (Yosemite Park).
Nitela townesorum Krombein, 1950. Pan-Pacific Ent. 26: 130 ♀.

virginiensis Rohwer. N. Y. to Fla., W. Va., Miss. Nests in twigs of *Rhus glabra*.
Nitela virginiensis Rohwer, 1923. Ent. Soc. Wash. Proc. 25: 100. ♀.

Tribe TACHYTINI[44]

So far as is known, all species provide their young with Orthoptera of the families Acrididae, Tettigoniidae, Mantidae, and Blattidae. The tribe is well represented in temperate as well as tropical areas of the World.

Genus TACHYTES Panzer

Revisions: Fox, 1892. Amer. Ent. Soc. Trans. 19: 234–252.—Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 395–436.

The species nest in sandy, sunny places and store Orthoptera (Saltatoria).

Subgenus TACHYTES Panzer

Tachytes Panzer, 1806. Krit. Rev. Insektenf. Deutschlands, v. 2, p. 129.
Type: (*Tachytes tricolor* Panzer) = *Tachytes tingitanus* Pate. Monob.
Lyrops Illiger, 1807. Fauna Etrusca, v. 2, p. 162.
Type: *Andrena etrusca* Rossi. Monob.

So far as is known the species store Acrididae.

aurulentus (Fabricius). East. States south to Fla., north to N. J., west to Tex., Kans.
Larra aurulenta Fabricius, 1804. Systema Piezatorum, p. 220. ♀.
Tachytes contractus Fox, 1892. Amer. Ent. Soc. Trans. 19: 245. ♀. Preocc
Tachytes (*Tachytes*) *austrinus* Banks, 1942. Harvard Univ., Mus. Compar. Zool. 89: 419. N. name.

basirufus Rohwer. Colo., Utah, N. Mex.
Tachytes basirufus Rohwer, 1909. Ent. News. 20: 197. ♂.

brevipilis Banks, Tex., Kans., Nebr., Utah, Idaho.
Tachytes (*Tachytes*) *brevipilis* Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 422. ♀.

cressoni Banks. Tex. (Fedor, Austin.)
Tachytes (*Tachytes*) *cressoni* Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 425. ♀.

elongatus apache Banks. L. Calif., Ariz. (south.), Tex. (south.).
Tachytes (*Tachytes*) *elongatus* var. *apache* Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 419. ♂.

elongatus elongatus Cresson. No. Amer. north to B. C., Nebr., Md., south to L. Calif., Sonora, Fla. Stores Acrididae of genera *Melanoplus*, *Ageneotettix*, *Orphulella*, *Hesperotettix*, etc.
Tachytes elongatus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 215. ♂.
Biology: Williams, 1913. Kans. Univ. Sci. Bul. 8: 194.—Rau, 1934. Canad. Ent. 66: 260.

exornatus Fox. Ariz., N. Mex., Tex. (southwest.), L. Calif.
Tachytes exornatus Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 501. ♂.

[44] By G. E. Bohart, U. S. Bureau of Entomology and Plant Quarantine.

fulviventris fulviventris Cresson. West. States east to Tex., Nebr., north to Mont., Wash., south to north. L. Calif.
Tachytes fulviventris Cresson, 1872. Ent. Soc. Phila. Proc. 4: 466. ♀.
Tachytes caelebs Patton, 1879. U. S. Geol. Geog. Survey Bul. 5: 355. ♂.
Biology: Williams, 1913. Kans. Univ. Sci. Bul. 8: 197.

fulviventris inferioris Banks. Ind., Ill.
Tachytes (Tachytes) fulviventris var. ***inferioris*** Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 422. ♀.

hesperus Banks. East. Oreg., Wash.
Tachytes (Tachytes) hesperus Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 423. ♀ ♂.

pepticus (Say). East. U. S. west to Wis., Mo., north to Mass., south to Fla.
Lyrops pepticus Say, 1837. Boston Jour. Nat. Hist. 1: 371. ♀ ♂.
Tachytes pennsylvanicus Banks, 1921. Ent. Soc. Amer. Ann. 14: 18. ♂.

rufofasciatus Cresson. No. Amer. north to Oreg., Nebr., Mo., N. C., south to L. Calif., Tex., Fla. Stores immature *Melanoplus*.
Tachytes rufofasciatus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 247. ♂.
Biology: Williams, 1913. Kans. Univ. Sci. Studies 8: 199.

sayi Banks. West U. S. north to Wash., east to Nebr., south to Colo., cent. Calif.
Tachytes (Tachytes) sayi Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 421. ♂ ♀.

seminole Banks, n. status. Fla. (southern).
Tachytes (Tachytes) elongatus var. ***seminole*** Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 419. ♂.

sericatus Cresson. Tex., N. Mex.
Tachytes sericatus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 216. ♀ (♂ misdet.?).

spatulatus Fox. West. U. S. south to Ariz., east to Colo., N. D., north to Wash.
Tachytes spatulatus Fox, 1892. Amer. Ent. Soc. Trans. 19: 243. ♂.

utahensis Banks. Intermountain area of west. U. S.; Calif., Nev., Utah, Idaho, Wyo., Colo.
Tachytes (Tachytes) utahensis Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 424. ♀ ♂.

Subgenus TACHYPLENA Banks

Tachyptera Dahlbom, 1844. Hym. Europaea, v. 1, p. 133. Preocc.
Type: ***Apis obsoleta*** Rossi. Desig. by Patton, 1880.
Tachyplena Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 397. N. name.

The species store both Acrididae and Tettigoniidae.

badius Banks. Tex. (Comal Co.), Ariz. (Baboquivari Mts.).
Tachytes (Tachyplena) badius Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 417. ♀.

belfragei Banks. Tex., La.
Tachytes (Tachyplena) belfragei Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 411. ♀.

calcaratus Fox. East. No. Amer., south to Fla., north to Ont., west to Colo.
Tachytes calcaratus Fox, 1892. Amer. Ent. Soc. Trans. 19: 239. ♀ ♂.
Tachytes calcaratiformis Rohwer, 1909. Ent. News 20: 204. ♀ ♂. N. syn.
Tachytes (Tachyplena) calcaratiformis var. ***coloradensis*** Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 411. ♀ ♂. N. syn.

columbiae Fox. N. J., Md., Va., N. C.
Tachytes columbiae Fox, 1892. Amer. Ent. Soc. Trans. 19: 241. ♀ ♂.

comanche Banks. Tex. (Lee Co.)
Tachytes (Tachyplena) comanche Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 417. ♂.

crassus Patton. Conn., Mass., Wis., Iowa, Mo., Nebr.
Tachytes crassus Patton, 1880. Boston Soc. Nat. Hist. Proc. 20: 241. ♀ ♂.

distinctus Smith. Tex., La., Ga., N. C.
Tachytes distinctus Smith, 1856. Cat. Hym., Brit. Mus., v. 4, p. 307. ♀.
Tachytes auricomans Bradley, 1919. Ent. News 30: 298. ♂. N. syn.
Tachytes (Tachyplena) auricomanes (!) Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 414. N. syn.

ermineus Banks. Tex. (western), Ariz., Utah (southern), Nev. (southern), L. Calif.
Tachytes (Tachyplena) ermineus Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 413. ♀ ♂.

floridanus Rohwer. Fla., N. C.
Tachytes pepticus floridanus Rohwer, 1920. Ent. Soc. Wash. Proc. 22: 59. ♀.

foxi Banks. Tex. (Lee Co.), S. C. (McClellansville).
Tachytes (Tachyplena) foxi Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 416. ♀.

harpax Patton. N. H., Mass., Conn., Va., Wis., Mich., Iowa, Nebr. Stores *Conocephalus brevipennis* (Scudder).
Tachytes harpax Patton, 1880. Boston Soc. Nat. Hist. Proc. 20: 395. ♀ ♂.
Tachytes dubitatus Rohwer, 1909. Ent. News 20: 202. ♀ ♂.

mandibularis Patton. East. No. Amer. south to N. C., west to Nebr., Kans., north to Que. Stores immature Tettigoniidae.
Tachytes mandibularis Patton, 1880. Boston Soc. Nat. Hist. Proc. 20: 394. ♀ ♂.
Tachytes propinquus Rohwer, 1909. Ent. News 20: 198. ♀.
Tachytes duplicatus Rohwer, 1920. Ent. Soc. Wash. Proc. 22: 59. ♀.
Biology: Patton, 1892. Ent. News 3: 90.—Williams, 1913. Kans. Univ. Sci. Bul. 8: 198.—Dow, 1930. Psyche 37: 182.

praedator Fox. Southeast. States south to S. C., north to Md., east to Lee Co., Tex.
Tachytes praedator Fox, 1892. Amer. Ent. Soc. Trans. 19: 240. ♀ ♂.

quadrifasciatus Dreisbach. Mich. (Livingstone Co.).
Tachytes (Tachyplena) quadrifasciatus Dreisbach, 1948. Ent. News 59: 151. ♂.

validus Cresson. Tex. (Minneola).
Tachytes validus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 216. ♀ ♂.
Tachytes breviventris Cresson, 1872. Amer. Ent. Soc. Trans. 4: 216. ♀ ♂.

Subgenus TACHYNANA Banks

Tachynana Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 397.
Type: *Tachytes obscurus* Cresson. Orig. desig.

The species store Acrididae and Tetrigidae.

abdominalis (Say). Tex., Colo., Ark.
Larra abdominalis Say, 1823. Western Quart. Rptr. 2: 77. ♀.

arizonicus Banks. Ariz. (Tempe), Calif. (Imperial Co.).
Tachytes (Tachynana) arizonicus Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 429. ♀.

atomus Banks. Ariz. (Tempe).
Tachytes (Tachynana) atomus Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 433. ♀.

austerus Mickel. Nebr., La.
Tachytes austerus Mickel, 1916. Amer. Ent. Soc. Trans. 42: 417. ♀.

birkmanni Rohwer. Tex. (Lee Co.).
Tachytes birkmanni Rohwer, 1909. Ent. News 20: 199. ♀.

hirsutifrons Banks. Ariz. (Tempe).
Tachytes (Tachynana) hirsutifrons Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 430. ♂.

intermedius (Viereck). Kans., Nebr.
Tachysphex intermedius Viereck, 1906. Amer. Ent. Soc. Trans. 32: 211. ♂.

maestus Mickel. Nebr., ?Ariz. (Tempe).
Tachytes maestus Mickel, 1916. Amer. Ent. Soc. Trans. 42: 417. ♀.

minutus Rohwer. East. States south to S. C., north to N. Y., east to Tex., Kans.
Tachytes minutus Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 128. ♂.
Tachytes (Tachynana) amiculus Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 432. ♂. N. syn.

obductus Fox. Tex., Tenn., Mo., Kans., Nebr. Stores immature Tetrigidae.
Tachytes obductus Fox, 1892. Amer. Ent. Soc. Trans. 19: 250. ♀.
Biology: Williams, 1913. Kans. Univ. Sci. Studies 8: 198.

obscurus Cresson. No. Amer. north to Wash., Nebr., Md., south to Fla., L. Calif., ?P. R. Stores Acrididae.
Tachytes obscurus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 217. ♀.
Tachytes texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 217. ♂.

pattoni Banks. Fla., Ala., Tex., Ohio.
Tachytes (Tachynana) pattoni Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 428. ♀.

parvus Fox. N. J., Md., Va., N. C., Ill., Mich., Nebr.
Tachytes parvus Fox, 1892. Amer. Ent. Soc. Trans. 19: 249. ♂.

Subgenus TACHYOIDES Banks

Tachyoides Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 398.
Type: *Tachytes mergus* Fox. Orig. desig.

ariella (Banks). Ariz. (Tempe).
Tachyoides ariella Banks, 1942. Harvard Univ., Mus. Compar. Zool. Bul. 89: 434. ♀.

mergus Fox. N. J., Ga., Fla., Tex., Nebr.; also Cent., So. Amer. Stores Tridactylidae.
Tachytes mergus Fox, 1892. Amer. Ent. Soc. Trans. 19: 250. ♀.
Tachytes obscuranus Rohwer, 1909. Ent. News 20: 205. ♀. (♂ misdet.)
Tachytes minor Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 127. ♂.
Taxonomy: Krombein, 1948. Brooklyn Ent. Soc. Bul. 43: 18–20.
Biology: Williams, 1928. Hawaii. Sugar Planters' Assoc. Expt. Sta. Bul. 19: 54.

Genus LARROPSIS Patton

Larropsis Patton, 1892. Ent. News 3: 90.
Type: *Larrada tenuicornis* Smith. Orig. desig.
Ancistromma Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 487.
Type: *Larrada distincta* Smith. Desig. by Rohwer, 1911.

Host records are confined to Tettigoniidae.

ater Williams. Kans., Tex., Ariz.
Larropsis ater Williams, 1913. Kans. Univ. Sci. Bul. 8: 146. ♂.

aurantia (Fox). Iowa, Kans., Nebr., N. Dak., Mont.
Larra aurantia Fox, 1891. Ent. News 2: 194. ♀.
Ancistromma aurulenta (!) Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 388. N. syn.

bruneri (H. S. Smith). Kans., Nebr.
Ancistromma bruneri H. S. Smith, 1906. Ent. News 17: 248. ♂.
Larropsis minor Williams, 1913. Kans. Univ. Sci. Bul. 8: 146. ♂. N. syn.

capax (Fox.) West. States east to Colo., Mont., north to Alta. Canad. to Transit. zones.
Ancistromma capax Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 490. ♀.
Ancistromma dolosa Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 492. ♀ N. syn.
Larropsis dolosana Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 245. ♀. N. syn.

Larropsis picina Mickel, 1916. Amer. Ent. Soc. Trans. 42: 418. ♀ ♂. N. syn.

chilopsidis (Cockerell and Fox). Tex., Kans.
Ancistromma chilopsidis Cockerell and Fox, 1897. Acad. Nat. Sci. Phila. Proc. 49: 137. ♀.
Ancistromma zerbei Viereck, 1906. Amer. Ent. Soc. Trans. 32: 208. ♀.

conferta (Fox). Iowa, Tex., Kans., Nebr., Mont., Colo.
Ancistromma conferta Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 494. ♀ ♂.
Larropsis gracilis Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 244. ♀ ♂. N. syn.

consimilis (Fox). Tex. (Lee Co.)
Ancistromma consimilis Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 496. ♀.

discreta (Fox). Ga., Tex.
Ancistromma discreta Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 493. ♀.
Larropsis filicornis Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 582. ♀. N. syn.

distincta (Smith). No. Amer. south to Calif. (San Francisco), Kans., Va., north to Wash., Que.
Larrada distincta Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 292. ♀.
Larropsis distincta var. *semirufa* Banks, 1921. Ent. Soc. Amer. Ann. 14: 19. ♀ ♂. N. syn.

divisa (Patton). Kans., Nebr. Stores immature *Ceuthophilus*.
Larra divisa Patton, 1879. U. S. Geol. Geog. Survey Bul. 5: 368. ♀.
Biology: Williams, 1913. Kans. Univ. Sci. Bul. 8: 192.

greenei Rohwer. N. J.
Larropsis greenei Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 173. ♀.

paenerugosa (Viereck). Kans. (Clark Co.)
Ancistromma paenerugosa Viereck, 1906. Amer. Ent. Soc. Trans. 32: 210. ♂.

portianus Rohwer, West Tex., N. Mex.
Larropsis portianus Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 583. ♀ ♂.

rubens Mickel. Nebr. (Mitchell).
Larropsis rubens Mickel, 1917. Nebr. Univ., Studies 17: 329. ♀.

rugosa (Fox). Mont., N. D., Nebr., Kans. Iowa.
Ancistromma rugosa Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 496. ♂.

sericifrons (H. S. Smith). Nebr., Kans.
Ancistromma sericifrons H. S. Smith, 1906. Ent. News 17: 247. ♂.

tachysphecoides (Viereck). Kans. (Clark Co.).
Ancistromma tachysphecoides Viereck, 1906. Amer. Ent. Soc. Trans. 32: 209. ♂.

tenuicornis (Smith). Wash., Oreg., Calif., Ariz., Canad. to U. Sonor. Zones.
Larrada tenuicornis Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 293. ♀.

vegeta (Fox). Nebr., Colo.
Ancistromma vegeta Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 497. ♀ ♂.

vegetoides (Viereck). Kans., Ariz.
Ancistromma vegetoides Viereck, 1906. Amer. Ent. Soc. Trans. 32: 208. ♀.

yatesi Mickel. Nebr. (Mitchell).
Larropsis yatesi Mickel, 1917. Nebr. Univ., Studies 17: 412. ♂.

Genus TACHYSPHEX Kohl

Revision: Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 504–533.

Subgenus TACHYSPHEX Kohl

Tachysphex Kohl, 1883. Deut. Ent. Ztschr. 27: 166.
Type: *Tachysphex filicornis* Kohl. Desig. by Bingham, 1897.

Hosts are mostly immature Acrididae but also include Mantidae and Blattidae.

acutus (Patton). East. States north to Vt. and Mich., west to Kans., Nebr., south to Va., Mo.
Larra acuta Patton, 1880. Boston Soc. Nat. Hist. Proc. 20: 390. ♀.
Tachysphex bruesi Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 577. ♀. N. syn.

aequalis Fox. West. States in mountains. Shrubby areas in Huds., Transit. Zones.
Tachysphex aequalis Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 517. ♂.
Tachysphex johnsoni Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 573. ♀. N. syn.
Tachysphex opwanus Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 574. ♂. N. syn.
Tachysphex washingtoni Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 172. ♀. N. syn.

aethiops Cresson. West. States in mountains.
Larrada aethiops Cresson, 1865. Ent. Soc. Phila. Proc. 4: 465. ♀.

alpestris Rohwer, n. status. Colo. (Florissant).
Tachysphex foxii var. *alpestris* Rohwer, 1908. Ent. News 19: 223. ♀.

amplus Fox. Calif., N. Mex., Ariz., shrubby areas in U. Sonor.
Tachysphex amplus Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 523. ♀ ♂.
Tachysphex gilletti Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 571. ♀. N. syn.
Tachysphex neomexicanus Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 575. ♀. N. syn.

angularis Mickel. Nebr.
Tachysphex angularis Mickel, 1916. Amer. Ent. Soc. Trans. 42: 416. ♂.

antennatus Fox. Tex.
Tachysphex antennatus Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 516. ♀

apicalis Fox. Cent. to south. Fla.
Tachysphex apicalis Fox, 1893. N. Y. Ent. Soc. Jour. 1: 53. ♀ ♂.
Tachysphex fumipennis Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 518. ♀. N. syn.

argyrotrichus Rohwer. Colo.
Tachysphex agryrotrichus Rohwer, 1911. U. S. Natl. Mus. Proc. 4: 572. ♂.

ashmeadii Fox. Arid portions of Utah, Oreg., Calif.
Tachysphex ashmeadii Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 509. ♀.
Tachysphex spinosus Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 511. ♀. N. syn.
Tachysphex spissatus Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 515. ♂. N. syn.
Larra rufipes Provancher, 1895. Nat. Canad. 22: 129. ♀. N. syn.

asperatus Fox. Canad. Zone in Sierra Nevada Mts., Calif.
Tachysphex asperatus Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 516. ♀.

belfragei (Cresson). Tex., Kans., Nebr.
Larrada belfragei Cresson, 1872. Amer. Ent. Soc. Trans. 4: 215. ♀.

clarconis Viereck. Kans.
Tachysphex clarconis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 211. ♀.

consimilis Fox. Mont., Colo.
Tachysphex consimilis Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 526. ♀ ♂.

coquilletti Rohwer. Calif., Ariz., N. Mex., Kans., Nebr.
Tachysphex coquilletti Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 572. ♀ ♂.
Tachysphex dentatus Williams, 1913. Kans. Univ. Sci. Bul. 8: 169. ♀. N. syn.

crassiformis Viereck. Kans.
Tachysphex crassiformis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 210. ♀.

crenulatus Fox. Arid hillsides in south. Calif.
Tachysphex crenulatus Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 512. ♀.

dakotensis Rohwer. N. Dak. (Gascoyne).
Tachysphex dakotensis Rohwer, 1923. Ent. Soc. Wash. Proc. 25: 98. ♀.

decorus Fox. N. Dak.
Tachysphex decorus Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 524. ♀.

dubiosus Dalla Torre. East. States west to Kans., north to Mass., south to Va.
Tachysphex dubius Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 515. ♂. Preocc.
Tachysphex dubiosus Dalla Torre, 1897. Cat. Hym., v. 8, p. 679. N. name.

eldoradensis Rohwer. Calif., Oreg., Wyo., Canad. Zone. Openings in forests.
Tachysphex eldoradensis Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 245. ♀.

erythraeus Mickel. Sioux Co., Nebr.
Tachysphex erythraeus Mickel, 1916. Amer. Ent. Soc. Trans. 42: 415. ♀.

exsectus Fox. Mont.
Tachysphex exsectus Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 526. ♀. (♂ misdet.).

fusus Fox. All U. S. except Fla. Sandy places with sparse vegetation. Provisions nests with immature *Melanoplus* (Acrididae).
Tachysphex fusus Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 519. ♀ ♂.
Tachysphex foxii Rohwer, 1908. Ent. News 19: 222. ♀. N. Syn.
Biology: Williams, 1913. Kans. Univ. Sci. Bul. 8: 201.

glabrior Williams. West. Kans., Nebr.
Tachysphex glabrior Williams, 1913. Kans. Univ. Sci. Bul. 8: 171. ♀ ♂.

helianthi Rohwer. Colo. (Boulder).
Tachysphex helianthi Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 570. ♀.

laevifrons (Smith). N. C., S. C., Ga., Fla. Sandy pine forests.
Larrada laevifrons Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 245. ♀.

leensis Rohwer. Tex., Kans.
Tachysphex leensis Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 578. ♀.
Tachysphex consimiloides Williams, 1913. Kans. Univ. Sci. Bul. 8: 164. ♀. N. syn.

maurus Rohwer. Tex. (Lee Co.).
Tachysphex maurus Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 575. ♀. (♂?)

minimus (Fox). East. U. S. west to Kans., Nebr., Tex. Small sandy spots near streams.
Tachytes minimus Fox, 1892. Amer. Ent. Soc. Trans. 19: 248. ♀.

montanus (Cresson). Mont., Wyo., Colo., Utah above 6000 ft.; B. C.
Larrada montana Cresson, 1865. Ent. Soc. Phila. Proc. 4: 465. ♀.
Tachysphex inusitatus Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 524. ♂. N. syn.
Tachysphex compactus Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 528. ♂. N. syn.

mundus Fox. Ill., Tex., Kans., Nebr.
Tachysphex mundus Fox, 1893. Acad. Nat. Hist. Phila. Proc. 45: 531. ♀ ♂.

nigrescens Rohwer. Colo. (Florissant).
Tachysphex nigrescens Rohwer, 1908. Ent. News 19: 220. ♀.

nigrior Fox. Utah, Idaho, east. Wash. Sandy hillsides.
Tachysphex nigrior Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 530. ♀ ♂.

nigrocaudatus Williams. Kans., Nebr.
Tachysphex nigrocaudatus Williams, 1913. Kans. Univ. Sci. Bul. 8: 167. ♀ ♂.

parvulus (Cresson). Colo., Wyo., Idaho, Oreg., Canad. Zone.
Larrada parvula Cresson, 1865. Ent. Soc. Phila. Proc. 4: 465. ♂.

pauxillus Fox. Calif. Shrubby hillsides of U. Sonor.
Tachysphex pauxillus Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 530. ♀.

pechumani Krombein, n. status. N. Y., N. J., Mich.
Tachysphex tarsatus pechumani Krombein, 1938. Ent. Soc. Amer. Ann. 31: 468. ♀.

plenoculiformis Williams. West. Kans. Arid, sandy areas. Stores immature tryxalid locusts.
Tachysphex plenoculiformis Williams, 1913. Kans. Univ. Sci. Bul. 8: 167. ♀.
Biology: Williams 1913. Kans. Univ. Sci. Bul. 8: 201.

plesia Rohwer. Oreg., Calif., south to San Diego Co. Shrubby hillsides from Canad. to Transit. Zones.
Tachysphex plesia Rohwer, 1913. U. S. Natl. Mus. Proc. 53: 245. ♀.

posterus Fox. Wash. east to Cascade Mts.; desert areas.
Tachysphex posterus Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 510. ♀.

propinquus Viereck. West. States east to cent. Tex., north to Kans., Utah. Desert areas. Stores immature locusts of the following genera: *Cordillacris, Derotmema, Opeia, Ageneotettix, Mesotobregma.*
Tachysphex propinquus Viereck, 1904. Ent. News 15: 85. ♀.
Biology: Williams, 1913. Kans. Univ. Sci. Studies 8: 202.

punctifrons (Fox). U. S., east of Rocky Mts.
Larra punctifrons Fox, 1891. Ent. News 2: 194. ♀ ♂.
Tachysphex fedorensis Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 576. ♀ ♂. N. syn.

quebecensis (Provancher). Que., Ont.; Maine, Mass.
Larra quebecensis Provancher, 1882. Nat. Canad. 13: 150. ♀ ♂.

robustior Williams. Tex., Kans.
Tachysphex robustior Williams, 1913. Kans. Univ. Sci. Bul. 8: 164. ♂.
Tachysphex crenuloides Williams, 1913. Kans. Univ. Sci. Bul. 8: 168. ♀. N. syn.

sanguinosus Mickel. Nebr., Kans.
Tachysphex sanguinosus Mickel, 1916. Amer. Ent. Soc. Trans. 42: 414. ♀.

sculptilis Fox. Colo.
Tachysphex sculptilis Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 517. ♀.
Tachysphex sphecodoides Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 578. ♀. N. syn.

sculptiloides Williams. Kans. (Barton Co.).
Tachysphex sculptiloides Williams. Kans. Univ. Sci. Bul. 8: 166. ♀.

semirufus (Cresson). West. States east to west. Nebr. Shrubby areas in mountains.
Larrada semirufa Cresson, 1865. Ent. Soc. Phila. Proc. 4: 464. ♀.
Tachysphex punctulatus H. S. Smith, 1906. Ent. News 17: 246. ♀. Preocc. N. syn.
Tachysphex puncticeps H. S. Smith, 1908. Nebr. Univ., Studies 8: 58. N. name. N. syn.
Tachysphex giffardi Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 244. ♀. N. syn.

sepulchralis Williams. Mass., N. C., Kans., Nebr.
Tachysphex sepulchralis Williams, 1913. Kans. Univ. Sci. Bul. 8: 169. ♀ ♂.
Tachysphex maneei Banks, 1921. Ent. Soc. Amer. Ann. 14: 19. ♀. N. syn.

similis Rohwer. U. S. north to Mass., south to Fla., west to Tex., Utah. Sandy areas near streams.
Tachysphex similis Rohwer, 1910. Ent. Soc. Wash. Proc. 12: 51. ♀ ♂.
Tachysphex similans Rohwer, 1910. Ent. Soc. Wash. Proc. 12: 52. ♀. N. syn.

tarsatus (Say). Transcont. in U. S., Canad., Transit., and Austr. Zones. Prey includes immature Acrididae and Mantidae.
Larra tarsata Say, 1823. Western Quart. Rptr. 2: 78. ♀.
Tachysphex hitei Rohwer, 1908. Ent. News 19: 221. ♀. N. syn.
Tachysphex zimmeri Mickel, 1916. Amer. Ent. Soc. Trans. 42: 415. ♀. N. syn.
Biology: Williams, 1913. Kans. Univ. Sci. Bul. 17: 203.

tenuipunctus Fox. West. Canada and U. S. in mountains south to Ariz., N. Mex. Sunny spots in forested regions of Huds. to Transit. Zones.
Tachysphex tenuipunctus Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 525. ♀.
Tachysphex granulosus Mickel, 1917. Nebr. Univ., Studies 17: 423. ♀. N. syn.

terminatus (Smith). Transcont. north to Ont., B. C.; south to Ga., Ariz. Sandy spots. Stores Acrididae nymphs and Tetrigidae.
Larrada terminata Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 291. ♀.
Larra minor Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 268. ♀ ♂. N. syn.
Biology: Williams, 1913. Kans. Univ. Sci. Bul. 8: 201.—Rau, 1946. Brooklyn Ent. Soc. Bul. 41: 10.

texanus (Cresson). North. Mexico; Tex., Utah, south. Calif. Desert areas.
Larrada texana Cresson, 1872. Amer. Ent. Soc. Trans. 4: 214. ♀.

triquetrus Fox. Colo., Calif., Nev. Forested regions of Canad. Zone.
Tachysphex triquetrus Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 528. ♀.

wheeleri Rohwer. Tex., Kans.
Tachysphex wheeleri Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 579. ♀.

Tribe LARRINI[45]

So far as is known, all species provide their young with Orthoptera of the families Gryllidae and Gryllotalpidae . The species are mostly of tropical and subtropical distribution.

Genus LARRA Fabricius

Larra Fabricius, 1793. Ent. System., v. 2, p. 5.
Type: (*Larra ichneumoniformis* Fabricius)=[*Sphex*] *anathema* (Rossi). Desig. by Latreille, 1810.
Larrana Rafinesque, 1815. Analyse Nature ou Tabl. Univers, Palmero, p. 124. Emend.
Lyrops Dahlbom, 1844. Hym. Europaea, v. 1, p. 132. Preocc.
Type: *Tachytes* (*Lyrops*) *pagana* Dahlbom. Monob.
Larrada Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 337.
Type: *Sphex anathema* Rossi. Orig. desig.
Cratolarra Cameron, 1900. Ann. Mag. Nat. Hist. (7) 5: 34.
Type: *Cratolarra femorata* Cameron. Monob.

Most species provide their young with Gryllotalpidae within the host burrow, though there is one questionable record of *analis* F. using Gryllidae.

analis Fabricius. East. states north to N. Y., south to Fla., La., west to Tex., Nebr. Host: *Gryllotalpa hexadactyla* Perty.
Larra analis Fabricius, 1804. Systema Piezatorum, p. 220. ♀.
Larrada americana Cresson, 1872. Amer. Ent. Soc. Trans. 4: 214. ♂. Preocc.
Larra cressoni Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 482. N. name.
Biology: Smith, C. E., 1935. Ent. Soc. Wash. Proc. 37 (4): 65–82.
Morphology: Cushman, 1935. Ent. Soc. Wash. Proc. 37: 82–87 (of larvae).

Genus MOTES Kohl

So far as is known, the species store Gryllidae exclusively.

Subgenus MOTES Kohl

Motes Kohl, 1896. K. K. Naturhist. Hofmus. Ann. 11: 263.
Type: *Notogonia odontophora* Kohl. Desig. by Pate, 1937.

[45] By G. E. Bohart, U. S. Bureau of Entomology and Plant Quarantine.

Notogonia Costa, 1867. Mus. Zool. Univ. Napoli Ann. 4: 83. Preocc.
Type: ***Tachytes nigra*** Van der Linden. Monob.
Notogonidea Rohwer, 1911. Ent. Soc. Wash. Proc. 13: 234. N. name.

Subgenus NOTOGONIUS Howard

Notogonius Howard (!) 1902. Insect Book, pl. 6.
Type: (***Notogonius nigripennis*** (Fox))=[***Notogonia***] ***aequalis*** (Fox). Monob.

aequalis (Fox), n. comb. N. Amer. north to N. Y., Nebr., Oreg., south to Fla., Ariz., L. Calif.
Notogonia nigripennis Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 485. ♀. Preocc.
Notogonia aequalis Fox, 1893. Acad. Nat. Sci. Phila. Proc. 45: 486. ♀. N. syn.
Larra nigripennata Dalla Torre, 1897. Cat. Hym., v. 8, p. 670. N. name. N. syn.
Notogonia nigripennis var. ***occidentalis*** Viereck, 1902. Acad. Nat. Sci. Phila. Proc. 54: 731. ♀. N. syn.
Notogonia subaequalis Rohwer, 1909. Ent. News. 20: 370. ♀. N. syn.

argentata (Palisot-Beauvais), n. comb. No. Amer. north to Que., Wash., south to L. Calif., Fla. Grassy areas. Stores immature *Gryllus*.
Larra argentata Palisot-Beauvais, 1811. Ins. Afr., Amer., p. 119. ♀.
Biology: Williams, 1913. Kans. Univ. Sci. Bul. 8 (4): 189.—Ashmead, 1894. Psyche 7: 63.

mescalero Pate. N. Mex. (Alamogordo).
Motes mescalero Pate, 1943. Canad. Ent. 75: 200. ♂.

muspa Pate. Cent. to south. Fla.
Motes muspa Pate, 1943. Canad. Ent. 75: 201. ♂.

Subfamily TRYPOXYLONINAE[46]

Genus PISON Jurine

Subgenus PISON Jurine

Pison Jurine, 1808. *In* Spinola, Insectorum Liguriae, v. 2, p. 255.
Type: (***Pison Jurini*** Spinola) =[***Alyson***] ***atrum*** (Spinola). Monob.
Tachybulus Latreille, 1809. Gen. Crust. Ins., v. 4, p. 75.
Type: (***Tachybulus niger*** Latreille) = [***Alyson***] ***atrum*** (Spinola). Monob.
Nephridia Brullé, 1833. Soc. Ent. France Ann. 2: 408.
Type: ***Nephridia Xanthopus*** Brullé. Monob.
Pison subg. ***Pisonitus*** Shuckard, 1837. Ent. Soc. London, Trans. 2: 79.
Type: ***Pison*** (***Pisonitus***) ***argentatus*** Shuckard. Desig. by Pate, 1937.
Pseudo-Nysson Radoszkowski, 1876. Soc. Ent. Rossica Horae 12: 104.
Type: ***Pseudo-Nysson fasciatus*** Radoszkowski. Monob.
Taranga W. F. Kirby, 1883. Ent. Soc. London, Trans., p. 201.
Type: (***Taranga dubia*** Kirby) = ***Pison spinolae*** Shuckard. Monob.
Pisum Schulz, 1906, *nec* Megerle, 1811. Spolia Hym., p. 212. Emend. of *Pison*.

laeve Smith. Ga.
Pison laevis Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 317. ♀.

Genus TRYPOXYLON Latreille

Revisions: Fox, 1891. Amer. Ent. Soc. Trans. 18: 136–148, 1 pl.—Fox, 1893. Acad. Nat. Sci. Phila. Proc., pp. 472–474 (revised key to spp.).—Richards, 1934. Roy. Ent. Soc., London, Trans. 82: 173–362, 56 text figs., 5 pls. (New World spp.).—Sandhouse, 1940. Amer. Midland Nat. 24: 133–176, 4 pls.

[46] By Karl V. Krombein, U. S. Bureau of Entomology and Plant Quarantine.

Subgenus TRYPOXYLON Latreille

Trypoxylon Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 338.
Type: *Sphex figulus* Linnaeus. Monob.
Apius Panzer, 1806. Krit. Rev. Insektenf. Deutschlands, v. 2, pp. 10, 106.
Type: *Sphex figulus* Linnaeus. Monob.
Trypoxylum Schulz, 1906. Spolia Hym., p. 212. Emend.

Species of this subgenus nest in hollow twigs, abandoned beetle burrows, in soft or rotten wood, or occasionally (*johnsoni*) in soil. Partitions between the cells are of clay. Spiders of several families are used to provision the nests, but the preferred prey is small Epeiridae. Males do not guard the nest while the female is searching for prey.

adelphiae Sandhouse. Va., Tenn.
Trypoxylon (*Trypoxylon*) *adelphiae* Sandhouse, 1940. Amer. Midland Nat. 24: 151. ♀ ♂.

aldrichi Sandhouse. Alta. and Mont. west to B. C. and north. Calif.
Trypoxylon (*Trypoxylon*) *aldrichi* Sandhouse, 1940. Amer. Midland Nat. 24: 158. ♀ ♂.

backi Sandhouse. N. Y. to Ga. Nests in wood, occasionally in deserted burrows of powder-post beetles.
Trypoxylon (*Trypoxylon*) *backi* Sandhouse, 1940. Amer. Midland Nat. 24: 164. ♀ ♂.

bidentatum Fox. Wash. and Idaho, south to Calif. and Ariz.
Trypoxylon bidentatum Fox, 1891. Amer. Ent. Soc. Trans. 18: 143. ♀ ♂ (?in part).
Trypoxylon morrisoni Richards, 1934. Roy. Ent. Soc. London, Trans. 82: 319. ♀.

bridwelli Sandhouse. Tex. (Brownsville).
Trypoxylon (*Trypoxylon*) *bridwelli* Sandhouse, 1940. Amer. Midland Nat. 24: 168. ♂.

carinatum Say. U. S. east of 100th meridian, except New England. Reared from burrow in partly decayed trunk of tulip-tree.
Trypoxylon carinatus Say, 1837. Boston Jour. Nat. Hist. 1: 374. ♂.

fastigium Fox. D. C., Ga., Miss., Tex., Kans., Idaho, Ariz., Calif.
Trypoxylon carinifrons Fox, 1891. Amer. Ent. Soc. Trans. 18: 142. ♀ ♂. Preocc.
Trypoxylon fastigium Fox, 1893. Acad. Nat. Sci. Phila. Proc., p. 476. N. name.
Trypoxylon subfrigidum Rohwer, 1909. Ent. News 20: 378. ♂.
Trypoxylon nigrellum Rohwer, 1909. Ent. News 20: 379. ♀.

figulum (Linnaeus). Holarctic; Que., Maine, N. H., Mass. In Europe it nests in hollow stems of beetle burrows, and stores mostly Epeiridae.
Sphex figulus Linnaeus, 1758. Syst. Nat., ed. 10, p. 570.
Trypoxylon apicalis Fox, 1891. Amer. Ent. Soc. Trans. 18: 142, fig. 10. ♀.
Taxonomy: Pate, 1943. Brooklyn Ent. Soc. Bul. 38: 16.

frigidum Smith. Hudson Bay south to N. C., west to Wash. and N. Mex. Nests in hollow stems or abandoned beetle burrows.
Trypoxylon frigidum Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 381. ♀.
Trypoxylon plesium Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 229. ♀.
Biology: Packard, 1867. Ent. Soc. Phila. Proc. 6: 415.—Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 22.—Blackman and Stage, 1924. N. Y. State Col. Forestry, Syracuse Univ., Tech. Pub. 17: 197.—Rau, 1926. Acad. Sci. St. Louis, Trans. 25: 197.—Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 439–441, figs. 65, 66.—Taylor, 1928. Psyche 35: 225.—Pate, 1937. Brooklyn Ent. Soc. Bul. 22: 5.

johnsoni Fox. N. Y. to Fla., west to Mich., Mo., and Tex. Nests in soil or in hollow twigs.
Trypoxylon Johnsoni Fox, 1891. Amer. Ent. Soc. Trans. 18: 147. ♀.
Trypoxylon ornatipes Fox, 1891. Amer. Ent. Soc. Trans. 18: 148. ♂.

Biology: Rau and Rau, 1918. Wasp Studies Afield, pp. 137–139.—Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 22.

pennsylvanicum Saussure. Que. to N. C., west to Colo. and Tex. Nests in twigs.
Trypoxylon pennsylvanicum Saussure, 1867. Reise d. Novara, Zool. 2, Hym., p. 82. ♀.

punctivertex Richards. Tex. (Victoria, Brownsville) south to Brazil.
Trypoxylon (Trypoxylon) punctivertex Richards, 1934. Roy. Ent. Soc., London, Trans. 82: 333. ♀.

regulare Viereck. Mo., Kans.
Trypoxylon regularis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 205. "♀" =♂.

richardsi Sandhouse. N. Y. to Va., west to Mich., Ala., Tex.
Trypoxylon (Trypoxylon) richardsi Sandhouse, 1940. Amer. Midland Nat. 24: 167. ♀ ♂.

sculleni Sandhouse. Mont. to Ariz., west to B. C. and Calif. Nests in twigs.
Trypoxylon (Trypoxylon) sculleni Sandhouse, 1940. Amer. Midland Nat. 24: 160. ♀ ♂.

timberlakei Sandhouse. Ariz., Calif. Nests in deserted gall of *Callirhytis hamiformis* (Bass.) on *Quercus wislizenii*.
Trypoxylon (Trypoxylon) timberlakei Sandhouse, 1940. Amer. Midland Nat. 24: 169. ♀.

Subgenus TRYPARGILUM Richards

Trypoxylon subg. *Trypargilum* Richards, 1934. Roy. Ent. Soc., London Trans. 82: 191.
Type: *Trypoxylon nitidum* Smith. Orig. desig.

Species of this subgenus, which is peculiar to the New World, build the familiar "pipe-organ" nests of clay (*politum*), or utilize a wide variety of cavities. The preferred prey seems to be Epeiridae. The male guards the nest when the female is absent.

arizonense Fox. Tex., Colo., N. Mex., Ariz., Utah, Calif., Oreg., Wash.
Trypoxylon arizonense Fox, 1891. Amer. Ent. Soc. Trans. 18: 145. ♀.
Trypoxylon rufozonalis Fox, 1891. Amer. Ent. Soc. Trans. 18: 145. ♀ ♂.

californicum Saussure. Calif. (south.)
Trypoxylon californicum Saussure, 1867. Reise d. Novara, Zool. 2, Hym., p. 78. ♀.

clavatum Say. Ont., U. S. east of Rockies except New England. Builds mud cells in deserted cells of *Sceliphron caementarium*, *Polistes*, and occasionally in old beetle burrows.
Trypoxylon clavatus Say, 1837. Boston Jour. Nat. Hist. 1: 374.
?*Trypoxylon annulare* Dahlbom, 1845. Hym. Europaea, v. 1, pp. 282, 509. ♀.
Trypoxylon quintilis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 206. ♂.
Trypoxylon cockerellae Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 130. ♀.
Biology: Ashmead, 1894. Psyche 1: 45.—Rau and Rau, 1916. Jour. Anim. Behavior 6: 34, figs. 16, 19, 24, 25.—Viereck, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 677.—Rau and Rau, 1918. Wasp Studies Afield, pp. 135–137; fig. 32.—Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 22.—Rau 1926. Acad. Sci. St. Louis, Trans. 25: 198.—Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 406.—Rau, 1931. Ent. News 42: 200.—Muma and Jeffers, 1945. Ent. Soc. Amer. Ann. 38: 246, 252, 255, pl. 2, figs. 5, 6.

collinum Smith. Ga., Fla.
Trypoxylon collinum Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 381. ♀.

johannis Richards. Ga., Fla.
Trypoxylon (Trypargilum) johannis Richards, 1934. Roy. Ent. Soc. London, Trans. 82: 238. ♀ ♂.

politum Say. Mass. to Fla., west to Kans. and Tex. Builds the familiar clay "pipe-organ" nests.

Trypoxylon politus Say, 1837. Boston Jour. Nat. Hist. 1: 373.

Trypoxylon neglectum Kohl, 1883. Zool.-Bot. Gesell. Wien Verh. 33: 340. ♂.

Trypoxylon basale Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 475. ♀ ♂.

Trypoxylon politiforme Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 476. ♀ ♂.

Biology: Rau, 1913. Ent. News 24: 401.—Rau and Rau, 1916. Jour. Anim. Behavior 6: 31-35, fig. 5.—Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 428.—T. B. Osborne, 1929. Conn. Agr. Expt. Sta. Bul. 305: 751–753, 1 pl., 1 fig.—Dow, 1930. Brooklyn Ent. Soc. Bul. 25: 98–101.—Fattig, 1936. Canad. Ent. 68: 44.—Muma and Jeffers, 1945. Ent. Soc. Amer. Ann. 38: 246, 252, 254–255, figs. 3, 4.

rubro-cinctum Packard. Que. to Ga., west to Minn., Kans., Ariz. Nests in stems, holes in posts, and in mortar between bricks.

Trypoxylon rubro-cinctum Packard, 1867. Ent. Soc. Phila. Proc. 6: 416. ♀.

Biology: Peckham and Peckham, 1895. Psyche 7: 303.—Peckham and Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 78.—Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 22.

spinosum Cameron. Tex. to Panama.

Trypoxylon spinosum Cameron, 1889. Biol. Cent.-Amer., Hym., v. 2, p. 46. ♀ ♂.

Trypoxylon cinereo-hirtum Cameron, 1889. Biol. Cent.-Amer., Hym., v. 2, p. 44. ♀.

striatum Provancher. Ont. and Mass. to Fla., west to Wis. and Tex.; in the Neotropical Region south to Argentina. Nests in holes in posts or old burrows of mining bees.

Trypoxylon striatum Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 283. ♀.

Trypoxylon cinereum Cameron, 1889. Biol. Cent.-Amer., Hym., v. 2, p. 40. ♀ ♂.

Trypoxylon albopilosum Fox, 1891. Amer. Ent. Soc. Trans. 18: 139. ♀ ♂.

Trypoxylon albopilosum planoense Rohwer, 1909. Ent. News 20: 380. ♀.

Biology: Peckham and Peckham, 1895. Psyche 7: 303.—Peckham and Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 77–87.—Rau, 1926. Acad. Sci. St. Louis, Trans. 25: 199.—Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 423.

texense Saussure. Ga., Ala., Miss., Ark., La., Tex., Kans., S. Dak., Colo., N. Mex. Nests in crevices in wood or stone walls, deserted burrows of mining bees, and old clay nests of *Sceliphron*.

Trypoxylon texense Saussure, 1867. Reise d. Novara, Zool. 2, Hym., p. 77. ♀.

Trypoxylon sulcus La Munyon, 1877. Nebr. Assoc. Adv. Sci. Proc., March 8.

Trypoxylon aureolum Rohwer, 1909. Ent. News 20: 381. ♀ ♂.

Trypoxylon relativum Rohwer, 1909. Ent. News 20: 382. ♀.

Biology: Hartman, 1905. Tex. Acad. Sci. Trans. 7: 71–73, pl. 4, fig. 23.—Hungerford and Williams, 1912. Ent. News 23: 248, fig. 5.—Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 441.

tridentatum Packard. Conn. to Fla., west to B. C. and Calif. Nests in twigs.

Trypoxylon tridentatum Packard, 1867. Ent. Soc. Phila. Proc. 6: 417. ♀.

Trypoxylon projectum Fox, 1891. Amer. Ent. Soc. Trans. 18: 141. ♀ ♂.

Biology: Rau amd Rau, 1918. Wasp Studies Afield, p. 134.

Subfamily PEMPHREDONINAE[47]

Tribe PSENINI[48]

In an excellent revision of the British species Spooner, 1948 (Roy. Ent. Soc., London, Trans. 99: 129–172, 5 figs.) presents biological data which tend to substantiate the generic and subgeneric groupings based

[47,48] By Karl V. Krombein, U. S. Bureau of Entomology and Plant Quarantine.

on structural characters. Thus, in Europe, *Psen s. str.* uses larger Auchenorrhyncha (Cercopidae, Membracidae, and Cicadellidae) and nests in ready-made cavities in wood or sandstone; *Mimesa s. str.* excavates burrows in the soil, and stores smaller Auchenorrhyncha (Cicadellidae) which are carried ventrally with the middle legs; *Mimesa* (*Mimumesa*) also uses smaller Auchenorrhyncha (Delphacidae, Cicadellidae), but carries the prey in the mandibles to nests in cavities in wood and stems; and *Psenulus* [*recte Diodontus*] preys on Sternorrhyncha (Aphidae, Psyllidae), which are carried ventrally by the middle legs to ready-made cavities in wood or plant stems. The scant biological information, published or unpublished, on Nearctic species indicates a similar correlation: Species of *Psen s. str.* prey on Cercopidae and Membracidae, and nest in wood; *Psen* (*Pseneo*) prey on Membracidae and Cicadellidae (*carolina* was reared from soil in a flowerpot and cocoons of reared specimens of *simplicicornis* bear fragments of wood pulp,; *Mimesa s. str.* nest in soil and provision with Cicadellidae; nothing is known as to the biology of our native *Mimesa* (*Mimumesa*); *Diodontus* have been reared from lumber and canes of *Rubus*, but the prey is unknown; nothing is known of the biology of *Pluto*, a genus peculiar to the New World, but presumably the species nest in soil.

Revisions: Fox, 1898. Amer. Ent. Soc. Trans. 25: 1–18.—Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 1–60, 2 pls.

Genus DIODONTUS Curtis

Subgenus DIODONTUS Curtis

Diodontus Curtis, 1834. Brit. Ent., v. 11, No. 496.
Type: (***Psen pallipes*** Panzer)=[***?Trypoxylon***] ***atratus atratus*** (Fabricius). Orig. desig.

Psenulus Kohl, 1896. K. K. Naturhist. Hofmus. Ann. 11: 254, 293.
Type: ***Psen fuscipennis*** Dahlbom. Desig. by Ashmead, 1899.

Neofoxia Viereck, 1901. Amer. Ent. Soc. Trans. 27: 338.
Type: (***Psen atrata*** Panzer)=[***?Trypoxylon***] ***atratus atratus*** (Fabricius). Orig. desig.

Revision: Krombein, 1950. Brooklyn Ent. Soc. Bul. 45: 35–40.

alienus Krombein. Calif. (Eldorado Co.).
Diodontus* (*Diodontus*) *alienus Krombein, 1950. Brooklyn Ent. Soc. Bul. 45: 38. ♀.

atratus parenosas Pate. N. H. to Ga., Utah. "Boring in wood" and reared from cane of *Rubus*. *D. atratus atratus* (F.) occurs in Europe and Siberia.
Diodontus parenosas Pate, 1944. Canad. Ent. 76: 133.

frontalis (Fox). Colo., N. Mex., Ariz., Utah, Calif., Wash.
Psen frontalis Fox, 1898. Amer. Ent. Soc. Trans. 25: 4. ♀.
Diodontus occidentalis Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 5. ♀. Preocc.
Diodontus hesperus Pate, 1944. Canad. Ent. 76: 133. N. name.

trisulcus (Fox). N. H. to Tenn., Mo., Kans. Reared from elder stems.
Psen trisulcus Fox, 1898. Amer. Ent. Soc. Trans. 25: 5. ♀.
Diodontus corusanigrens Rohwer, 1920. U. S. Natl. Mus. Proc. 57: 228. "♂"=♀.
Diodontus sulcatus Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 6. ♀.

Taxonomy: Pate, 1944. Canad. Ent. 76: 133.

Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 21–22.

Genus PSEN Latreille

Subgenus PSEN Latreille

Psen Latreille, 1796. Précis Caract. Gen. Ins., p. 122. No species.
Type: ***Sphex atra*** Fabricius. First included species.
Psenia Kirby, 1829. *In* Stephens, System. Cat. Brit. Ins., p. 361.
Type: ***Sphex atra*** Fabricius. Desig. by Pate, 1937.
Dahlbomia Wissman, 1849. Stettin. Ent. Ztg. 10: 9.
Type: ***Sphex atra*** Fabricius. Monob.
Mesopora Wesmael, 1852. Acad. Roy. Sci. Belg. Bul. 19: 279.
Type: ***Sphex atra*** Fabricius. Monob.

barthi Viereck. Conn., Pa., Md., Wis. Prey: *Cyrtolobus fenestratus* (Fitch); *Atymna inornata* (Say); *Micrutalis calva* (Say); cocoons from which type series of *myersiana* was reared bear attached fragments of Membracidae, perhaps *Enchenopa binotata* (Say). Nests in wood.
Psen (Mimesa) barthi Viereck, 1907. Wis. Nat. Hist. Soc. Bul. 5: 251. ♀.
Mimesa myersiana Rohwer, 1909. Ent. News 20: 324. ♀ ♂. N. syn.
Biology: Barth, 1907. Wis. Nat. Hist. Soc. Bul. 5: 251–257.

erythropoda Rohwer, N. Y. to N. C. Prey: *Aphrophora quadrinotata* Say.
Psen (Mimesa) erythropoda Rohwer, 1910. Ent. Soc. Wash. Proc. 12: 102. ♀.

monticola (Packard). N. H. to Ga.; Mich., Ala.
Mimesa monticola Packard, 1867. Ent. Soc. Phila. Proc. 6: 407. ♂.

unifasciculatus Malloch. N. Mex. (Beulah).
Psen (Psen) unifasciculatus Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 15. ♂.

Subgenus PSENEO Malloch

Psen subg. ***Pseneo*** Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 7.
Type: ***Psen Kohlii*** Fox. Orig. desig.
Taxonomy: Krombein, 1950. Ent. Soc. Wash. Proc. 52: 277–287.

kohlii kohlii Fox. N. Y. south to Ga., Ala., Kans.
Psen Kohlii Fox, 1898. Amer. Ent. Soc. Trans. 25: 9. ♀ (♂ misdet.).
Psen (Pseneo) fulvipes Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 11, fig. 3. ♀.
Psen (Pseneo) angulatus Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 12. ♂.

kohlii spicatus Malloch. N. Mex. (Beulah).
Psen (Pseneo) spicatus Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 12. ♂.

punctatus carolina Rohwer. Va. to north. Fla., Ala., Miss. Nesting in soil in flowerpot. Prey: *Homalodisca triquetra* (F.); *Graphocephala coccinea* (Foerster).
Psen (Mimesa) punctata var. ***carolina*** Rohwer, 1910. Ent. Soc. Wash. Proc. 12: 103. ♀.

punctatus ferrugineus (Viereck). South. Fla.
Mimesa ferruginea Viereck, 1901. Amer. Ent. Soc. Trans. 27: 341. ♂.

punctatus punctatus Fox. S. Dak., Nebr., Colo.
Psen punctatus Fox, 1898. Amer. Ent. Soc. Trans. 25: 9. ♀.

simplicicornis Fox. N. J. and Pa. south to N. C. Prey: Cocoons of a reared series bear fragments of *Graphocephala* sp. and some Cicadellinae.
Psen simplicicornis Fox, 1898. Amer. Ent. Soc. Trans. 25: 10. ♀ (♂ misdet.).

Genus MIMESA Shuckard

The species of this genus are much in need of revision. Synonymy and distribution as given are based largely on Malloch, 1933.

Subgenus MIMESA Shuckard

Mimesa Shuckard, 1837. Essay on Indig. Fossor. Hym., p. 228.
Type: ***Trypoxylon equestre*** Fabricius. Orig. desig.
Aporia Wesmael, 1852. Acad. Roy. Sci. Belg. Bul. 19: 272. Preocc.
Type: ***Trypoxylon equestre*** Fabricius. Desig. by Kohl, 1896.
Aporina Gussakovskij, 1937. Trav. Inst. Zool. Acad. Sci. 4: 665. N. name. Preocc.

arizonensis (Malloch), n. comb. Ariz. (Tucson, Roosevelt Lake).
Psen (Mimesa) arizonensis Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 36. ♂.

basirufa Packard. Transcont. in Transit. and U. Austr. Zones.
Mimesa basirufa Packard, 1867. Ent. Soc. Phila. Proc. 6: 406. ♀.
?***Mimesa nebrascensis*** H. S. Smith, 1908. Nebr. Univ., Studies 8: 390. ♀.

coquilletti (Rohwer), n. comb. Calif., Nev.
Psen (Mimesa) coquilletti Rohwer, 1910. U. S. Natl. Mus. Proc. 12: 103. ♀ (♂ misdet.).

cressonii Packard. Transcont. in Transit. and U. Austr. Zones.
Mimesa Cressonii Packard, 1867. Ent. Soc. Phila. Proc. 6: 405. ♀.
Mimesa denticulata Packard, 1867. Ent. Soc. Phila. Proc. 6: 406. ♂.
Mimesa conica H. S. Smith, 1908. Nebr. Univ., Studies 8: 389. "♀"=♂.

cressonii var. **atriventris** (Malloch), n. comb. Ont. (Toronto).
Psen (Mimesa) cressoni (!) var. ***atriventris*** Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 31. ♂.

dawsoni Mickel. Nebr. (Harrison).
Mimesa dawsoni Mickel, 1916. Amer. Ent. Soc. Trans. 42: 420. ♂.

edentata (Malloch), n. comb. Calif. (San Diego Co.).
Psen (Mimesa) edentatus Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 37. ♂.

ezra (Pate), n. comb. Kans., Colo. Nests in soil. Prey: *Exitianus exitiosus* (Uhler).
Mimesa argentifrons Cresson, 1865. Ent. Soc. Phila. Proc. 4: 487. ♀ ♂. Preocc.
Psen (Mimesa) ezra Pate, 1944. Canad. Ent. 76: 133. N. name.
Biology: Williams, 1914 (1913). Kans. Univ. Sci. Bul. 8: 226, pl. 33, figs. 1, 3.

granulosa (Fox), n. comb. S. Dak., Mont., Idaho, N. Mex.
Psen granulosus Fox, 1898. Amer. Ent. Soc. Trans. 25: 15. ♂.

gregaria (Fox), n. comb. Wyo., Colo., N. Mex.
Psen gregarius Fox, 1898. Amer. Ent. Soc. Trans. 25: 16. ♂.

gregaria var. **simplex** (Malloch), n. comb. Idaho, Utah, Colo.
Psen (Mimesa) gregarius var. ***simplex*** Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 42. ♀ ♂.

impressifrons (Malloch), n. comb. Wash. (Perry).
Psen (Mimesa) impressifrons Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 38. ♂.

maculipes Fox. Ont. to Fla.
Mimesa maculipes Fox, 1893. Canad. Ent. 25: 117. ♂.
Psen (Mimesa) nigrescens Rohwer, 1910. Ent. News 21: 168. ♂.
Psen (Mimesa) perplexa Rohwer, 1910. Ent. News 21: 169. ♀.

pauper Packard. Transit. Zone east of Rockies.
Mimesa pauper Packard, 1867. Ent. Soc. Phila. Proc. 6: 409. ♂.
Mimesa cingulata Packard, 1867. Ent. Soc. Phila. Proc. 6: 410. ♂. N. syn.

polita (Malloch), n. comb. Nebr., N. Mex.
Psen (Mimesa) politus Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 35. ♀ ♂.

proxima Cresson. Nebr., Colo., N. Mex., Wash.
Mimesa proxima Cresson, 1865. Ent. Soc. Phila. Proc. 4: 488. ♀.

psychrus (Pate), n. comb. Canada (Hudson Bay).
Mimesa borealis Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 431. ♂. Preocc.
Psen (Mimesa) psychrus Pate, 1944. Canad. Ent. 76: 133. N. name.

punctifrons (Malloch), n. comb. Calif. (Redlands).
Psen (Mimesa) punctifrons Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 36. ♂.

pygidialis (Malloch), n. comb. Mich., Colo., Alta.
Psen (Mimesa) pygidialis Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 39. ♀ ♂.

unicincta Cresson. Colo., Calif., B. C.
Mimesa unicincta Cresson, 1865. Ent. Soc. Phila. Proc. 4: 488. ♀.

Subgenus MIMUMESA Malloch

Psen subg. *Mimumesa* Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 16.
Type: *Psen niger* Packard. Orig. desig.

canadensis (Malloch), n. comb. Ont., N. Y., Mich., Colo., Alaska.
Psen (Mimumesa) canadensis Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 22. ♀ ♂.

clypeata (Fox), n. comb. Colo., Utah, Nev., Idaho, Calif., Alaska.
Psen clypeatus Fox, 1898. Amer. Ent. Soc. Trans. 25: 15. ♀ ♂.

coloradoensis (Cameron), n. comb. ?Colo. (Berkeley Co.).
Psen (Mimesa) coloradoensis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 232. ♀.

cylindrica (Fox), n. comb. Ariz.
Psen cylindricus Fox, 1898. Amer. Ent. Soc. Trans. 25: 5. ♀ ♂.

fuscipes (Packard), n. comb. Mass.
Psen fuscipes Packard, 1867. Ent. Soc. Phila. Proc. 6: 402. ♀.

interstitialis (Cameron), n. comb. N. Mex.
Psen (Mimesa) interstitialis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 233. ♂.

johnsoni Viereck. N. Y. to Va.
Mimesa johnsoni Viereck, 1901. Amer. Ent. Soc. Trans. 27: 340. ♀ ♂.

leucopus (Say), n. comb. N. H., Md., D. C., Va., Ind., Ill., Alta.
Psen leucopus Say, 1837. Boston Jour. Nat. Hist. 1: 370. ♀ ♂.
Psen elongatus Packard, 1867. Ent. Soc. Phila. Proc. 6: 400. "♀"=♂.

longicornis (Fox). R. I., N. Y. to Fla., La., Iowa.
Psen longicornis Fox, 1898. Amer. Ent. Soc. Trans. 25: 8. ♂.
Mimesa striatus Viereck, 1901. Amer. Ent. Soc. Trans. 27: 339. ♀. N. syn.
Psen (Mimesa) floridana Rohwer, 1910. Ent. Soc. Wash. Proc. 12: 102. ♀.

mandibularis H. S. Smith. Nebr.
Mimesa mandibularis H. S. Smith, 1908. Nebr. Univ., Studies 8: 392. ♀.

mellipes (Say), n. comb. N. Y., Md., D. C., Ohio, Ind., Ill., Iowa, Nebr.
Psen mellipes Say, 1837. Boston Jour. Nat. Hist. 1: 369. ♀.
Psen chalcifrons Packard, 1867. Ent. Soc. Phila. Proc. 6: 401. ♀.

mixta (Fox), n. comb. Transcont. in Transit. Zone.
Psen mixtus Fox, 1898. Amer. Ent. Soc. Trans. 25: 7. ♀ ♂.
Mimesa alticola Viereck, 1903. Amer. Ent. Soc. Trans. 29: 65. ♀.
Psen (Mimesa) similis Rohwer, 1910. Ent. Soc. Wash. Proc. 12: 101. ♂.

nigra (Packard). Transcont. in Transit. Zone.
Psen niger Packard, 1867. Ent. Soc. Phila. Proc. 6: 399. ♀ (♂ misdet.).

propinqua Kincaid. Alaska.
Mimesa propinqua Kincaid, 1900. Wash. Acad. Sci. Proc. 2: 508. ♂.

regularis (Fox). N. J., Pa.
Psen regularis Fox, 1898. Amer. Ent. Soc. Trans. 25: 6. ♀.
Taxonomy: Viereck, 1901. Amer. Ent. Soc. Trans. 27: 339. ♀.

Genus PLUTO Pate

Psenia Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 44. Preocc.
Type: *Mimesa tibialis* Cresson. Orig. desig.
Pluto Pate, 1937. Amer. Ent. Soc. Mem. 9: 51. N. name.

aerofacies (Malloch), n. comb. Tex., Mex.
Psenia aerofacies Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 49. ♀ ♂.

albifacies (Malloch), n. comb. Iowa (Sioux City).
Psenia albifacies Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 50. ♀.

angulicornis (Malloch). Tex.
Psenia angulicornis Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 58. ♀ ♂.

arenivagus Krombein. N. C., Ga.
Psenia angulicornis var. Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 48. (in key).
Pluto arenivagus Krombein, 1950 (1949). Elisha Mitchell Sci. Soc. Jour. 65: 268. ♀ ♂.

brevipetiolatus (Rohwer), n. comb. Calif.
Psenulus (Neofoxia) brevipetiolatus Rohwer, 1910. Ent. Soc. Wash. Proc. 12: 100. ♀.

clavicornis (Malloch), n. comb. Ariz. (Tucson).
Psenia clavicornis Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 50. ♂.

littoralis (Malloch), n. comb. Md. (Chesapeake Beach).
Psenia littoralis Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 56. ♀ ♂.

longiventris (Malloch), n. comb. Ariz., Calif.
Psenia longiventris Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 52. ♀ ♂.

marginatus (Malloch), n. comb. S. C., La.
Psenia marginata Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 54. ♀ ♂.

minutus (Malloch), n. comb. Tex. (San Diego).
Psenia minuta Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 59. ♀.

pallidistigma (Malloch), n. comb. Ariz., Tex.
Psenia pallidistigma Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 52. ♀ ♂.

rufibasis (Malloch). n. comb. Ga.
Psenia rufibasis Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 53. ♀ ♂.

sayi (Rohwer), n. comb. Austr. Zone east of Calif.
Psenulus (Neofoxia) sayi Rohwer, 1910. Ent. Soc. Wash. Proc. 12: 100. ♀.

suffusus (Fox), n. comb. N. Mex. (Las Cruces).
Psen suffusus Fox, 1898. Amer. Ent. Soc. Trans. 25: 18. ♀ (misdet. in part).

texanus (Malloch), n. comb. Tex. (Brownsville).
Psenia texana Malloch, 1933. U. S. Natl. Mus. Proc. 82 (26): 56. ♀ ♂.

tibialis (Cresson). D. C., Va., Tenn., La., Mo., Tex.
Mimesa tibialis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 227. ♀ ♂.

Tribe PEMPHREDONINI[49]

Revisions: Fox, 1892. Amer. Ent. Soc. Trans. 19: 307–326.—Pate, 1937. Amer. Ent. Soc. Trans. 63: 90–93 (key to gen.).

Genus XYLOCELIA Rohwer

Xylocelia Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 243.
Type: *Diodontus occidentalis* Fox. Orig. desig.
Revisions: Mickel, 1916. Ent. Soc. Amer. Ann. 9: 344–352.—Krombein, 1939. Brooklyn Ent. Soc. Bul. 34: 143 (key to N. Y. spp.).

European species have been recorded as nesting in the ground or in

[49]By Karl V. Krombein, U. S. Bureau of Entomology and Plant Quarantine.

wood and provisioning with Aphidae. Rau and Rau record *metathoracica* as nesting in soil and provisioning with Aphidae, and the Peckhams record the same nesting habit and prey for *americana*. I have captured *virginiana* and *franclemonti* in situations which strongly suggest that these species nest in the soil, and have captured a *virginiana* female carrying a leafhopper.

adamsi (Titus). Mich. (Isle Royale).
Diodontus adamsi Titus, 1909 (1908). Mich. Board Geol. Survey Rpt. for 1908, p. 319. ♀.

americana (Packard). Maine, Wis. Nests in soil. Prey: Choke-cherry aphids.
Diodontus americanus Packard, 1867. Ent. Soc. Phila. Proc. 6: 393. ♀.
Biology: Peckham and Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 99–107, pl. 10, fig. 5, pl. 14, fig. 3.

antennata Mickel. Nebr. (Omaha).
Xylocelia antennatus Mickel, 1916. Ent. Soc. Amer. Ann. 9: 348. ♀.

argentinae (Rohwer). Colo. (Cripple Creek).
Diodontus argentinae Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 104. ♂.

atra Mickel. Nebr., Kans. Nesting in clay bank.
Xylocelia ater Mickel, 1916. Ent. Soc. Amer. Ann. 9: 351. ♀.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 21.

beulahensis Rohwer. N. Mex. (Beulah).
Xylocelia beulahensis Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 174. ♀.

bidentata (Rohwer). N. B., N. Y., Mich.
Diodontus bidentatus Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 560. ♂.

brunneicornis (Viereck). Kans. (Sedgwick Co.).
Diodontus brunneicornis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 212. ♂.

cockerelli (Rohwer). Colo. (Florissant).
Diodontus cockerelli Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 105 ♂.

crassicornis (Viereck). Oreg. (Corvallis).
Diodontus crassicornus Viereck, 1904. Amer. Ent. Soc. Trans. 30: 243. ♂.

flavitarsis (Fox). Colo.
Diodontus flavitarsis Fox, 1892. Amer. Ent. Soc. Trans. 19: 316. ♂.

florissantensis (Rohwer). Colo. (Florissant).
Diodontus florissantensis Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 107. ♀ ♂.

franclemonti Krombein. N. Y., D. C., Va., Mich.
Xylocelia franclemonti Krombein, 1939. Brooklyn Ent. Soc. Bul. 34: 141. ♀ ♂.

fraterna (Rohwer). Colo. (Florissant).
Diodontus fraternus Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 106. ♂.

gillettei (Fox). Nebr., Colo., Idaho.
Diodontus Gillettei Fox, 1892. Amer. Ent. Soc. Trans. 19: 316. ♀.

leguminifera (Cockerell and Fox). N. Mex. (Santa Fe).
Diodontus leguminiferus Cockerell and Fox, 1897. Acad. Nat. Sci. Phila. Proc., p. 141. ♂.

maesta Mickel. Nebr., Colo.
Xylocelia maestus Mickel, 1916. Ent. Soc. Amer. Ann. 9: 347. ♂.

metathoracica Mickel. Mo., Nebr. Nests in soil. Prey: *Hysteroneura setariae* (Thos.).
Xylocelia metathoracicus Mickel, 1916. Ent. Soc. Amer. Ann. 9: 349. ♀.
Biology: Rau and Rau, 1918. Wasp Studies Afield, pp. 102–108, figs. 27, 28.

neomexicana (Rohwer). N. Mex. (Rowe).
Diodontus neomexicanus Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 106. ♂.

nigrita (Fox). Colo.
Diodontus nigritus Fox 1892. Amer. Ent. Soc. Trans. 19: 317. ♀.

occidentalis (Fox). Nebr., Ariz., Calif.
Diodontus occidentalis Fox, 1892. Amer. Ent. Soc. Trans. 19: 315. ♀ ♂.

rugosa (Fox). Ill., Nebr., Colo., Mont.
Diodontus rugosus Fox, 1892. Amer. Ent. Soc. Trans. 19: 315. ♂.

siouxensis Mickel. Nebr. (Sioux Co.).
Xylocelia siouxensis Mickel, 1916. Ent. Soc. Amer. Ann. 9: 350. ♀.

spinifera Mickel. Nebr. (Omaha).
Xylocelia spiniferus Mickel, 1916. Ent. Soc. Amer. Ann. 9: 348. ♀.

striata Mickel. N. Dak., Wyo.
Xylocelia striatus Mickel, 1916. Ent. Soc. Amer. Ann. 9: 350. ♀.

vallicolae salicis (Rohwer). Colo. (Boulder).
Diodontus vallicolae salicis Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 105. ♂.

vallicolae vallicolae (Rohwer). Colo. (Florissant).
Diodontus vallicolae Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 104. ♂.

virginiana Rohwer. N. Y., Va. Prey: *Typhlocyba* sp.
Xylocelia virginiana Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 175. ♂.

Genus AMMOPLANOPS Gussakovskij

Ammoplanops Gussakovskij, 1931. Soc. Espan. Hist. Nat. Bol. 31: 295.
Type: ***Ammoplanops carinatus*** Gussakovskij. Orig. desig.
Revision: Pate, 1939. Amer. Ent. Soc. Trans. 64: 392–411, figs. 3, 10–12, 17–23, 25.

The species are thought to nest in the soil.

ashmeadi Pate. Calif. (Palm Springs).
Ammoplanops ashmeadi Pate, 1939. Amer. Ent. Soc. Trans. 64: 397. ♀ ♂.

cockerelli (Ashmead). Tex., N. Mex., Colo., Utah, Ariz., Calif.
Ammoplanus cockerelli Ashmead, 1903. Ent. News 14: 295. ♀.

cressoni Pate. Ariz., Calif.
Ammoplanops cressoni Pate, 1939. Amer. Ent. Soc. Trans. 64: 395. ♂.

foxi Pate. Calif. (Clark Mt. in San Bernardino Co.).
Ammoplanops foxi Pate, 1939. Amer. Ent. Soc. Trans. 64: 409. ♂.

moenkopi Pate. Ariz.
Ammoplanops moenkopi Pate, 1939. Amer. Ent. Soc. Trans. 64: 402. ♂.

timberlakei Pate. Calif. (Andreas Canyon in Riverside Co.).
Ammoplanops timberlakei Pate, 1939. Amer. Ent. Soc. Trans. 64: 404. ♂.

vierecki Pate. N. Mex. (Alamogordo).
Ammoplanops vierecki Pate, 1939. Amer. Ent. Soc. Trans. 64: 406. ♀ ♂.

Genus PULVERRO Pate

Pulverro Pate, 1937. Amer. Ent. Soc. Trans. 63: 107.
Type: ***Pulverro mescalero*** Pate. Orig. desig.
Revision: Pate, 1937. Amer. Ent. Soc. Trans. 63: 107–119, figs. 4, 6, 7, 9–12, 16, 20.

The species are presumed to nest in soil.

chumashano Pate. Calif.
Pulverro chumashano Pate, 1937. Amer. Ent. Soc. Trans. 63: 118. ♂.
Taxonomy: Pate, 1939. Amer. Ent. Soc. Trans. 64: 417, fig. 24 (♀).

colorado Pate. Colo., Idaho, Oreg., B. C.
Pulverro colorado Pate, 1937. Amer. Ent. Soc. Trans. 63: 115. ♀.

columbianus (Kohl). Colo., Utah, Idaho, Oreg., B. C.
Ammoplanus (?) ***columbianis*** Kohl, 1890. K. K. Naturhist. Hofmus. Ann. 5: 61. ♀.
Ammoplanus eriogoni Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 101. ♂.

?constrictus (Provancher). Calif. (Los Angeles).
Anacrabro constrictus Provancher, 1895. Nat. Canad. 12: 141. ♀.

costano Pate. Calif.
Pulverro costano Pate, 1937. Amer. Ent. Soc. Trans. 63: 116. ♀.

?laevis (Provancher) Calif. (Los Angeles).
Anacrabro laevis Provancher, 1895. Nat. Canad. 12: 142. ♀.

mescalero Pate. N. Mex., Ariz.
Ammoplanus sp. Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 402.
Ammoplanus mandibularis Ashmead, 1898. *In* Cockerell, Davenport Acad. Nat. Sci. Proc. 7: 148. *Nom. nud.*
Pulverro mescalero Pate, 1937. Amer. Ent. Soc. Trans. 63: 111. ♀ ♂.
Taxonomy: Pate, 1939. Amer. Ent. Soc. Trans. 64: 411.

serrano Pate. Calif.
Pulverro serrano Pate, 1937. Amer. Ent. Soc. Trans. 63: 114, fig. 9. ♂.
Taxonomy: Pate, 1939. Amer. Ent. Soc. Trans. 64: 413, fig. 6 (♀).

Genus PEMPHREDON Latreille

The species nest in twigs, deserted galls, abandoned beetle burrows, or in rotten wood and provision the cells with Aphidae.

Subgenus PEMPHREDON Latreille

Pemphredon Latreille, 1796. Précis. Caract. Gen. Ins., p. 128.
Type: *Crabro lugubris* Fabricius. Desig. by Shuckard, 1837.
Revision: Rohwer, 1917. Brooklyn Ent. Soc. Bul. 11: 97–102.

angularis Fox. Transit. Zone east of Rockies.
Pemphredon angularis Fox, 1892. Amer. Ent. Soc. Trans. 19: 310. ♀ ♂.

cockerelli Rohwer. Colo. (Florissant).
Pemphredon cockerelli Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 103. "♀"=♂.

concolor Say. Transcont. in Transit. Zone. Nests in beech stump. Prey: *Longistigma caryae* (Harr.).
Pemphredon concolor Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 339.
Pemphredon Morio Cresson, 1865. Ent. Soc. Phila. Proc. 4: 486. ♀. Preocc.
Pemphredon Cressonii Dalla Torre, 1897. Cat. Hym., v. 8, p. 356. N. name.
Biology: Reinhard, 1929. The Witchery of Wasps, pp. 192–214, figs.

confertim Fox. Wash., Oreg.
Pemphredon confertim Fox, 1892. Amer. Ent. Soc. Trans. 19: 311. ♂.

errans Rohwer. Calif. Reared from oak gall.
Pemphredon errans Rohwer, 1917. Brooklyn Ent. Soc. Bul. 12: 99. ♀ ♂.

foxii Rohwer. Pa., N. J.
Pemphredon foxii Rohwer, 1917. Brooklyn Ent. Soc. Bul. 12: 101. ♀.

montanus Dahlbom. B. C.; Europe.
Pemphredon lugubris var. *b.* Zetterstedt, 1838. Ins. Lapponica, p. 441.
Pemphredon montanus Dahlbom, 1845. Hym. Europaea, v. 1, p. 262. ♀ ♂.

nearcticus Kohl. Nev.
Pemphredon (Cemonus) nearcticus Kohl, 1890. K. K. Naturhist. Hofmus. Ann. 5: 55. ♀ ♂.

rileyi Fox. Calif. (Placer Co.).
Pemphredon Rileyi Fox, 1892. Amer. Ent. Soc. Trans. 19: 310. ♀ (♀ in part, ♂ misdet.).

shawii Rohwer. N. H., Mass., Conn., Pa., Md.
Pemphredon shawii Rohwer, 1917. Brooklyn Ent. Soc. Bul. 12: 100. ♂.

tinctipennis Cameron. Ariz.
Pemphredon tinctipennis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 234. ♀.

virginiana Rohwer. N. Y., Pa., Va. Reared from rotten stump of tuliptree.
Pemphredon virginiana Rohwer, 1917. Brooklyn Ent. Soc. Bul 12: 101. ♀ ♂.

Subgenus CEMONUS Panzer

Cemonus Jurine, 1801. Intell. Blatt. Litt.-Ztg. Erlangen, v. 1, p. 164. Name suppressed by Internatl. Comn. Zool. Nomencl., Op. 135, 1939.
Cemonus Panzer, 1806. Krit. Rev. Insektenf. Deutschlands, v. 2, p. 186.
Type: (*Sphex unicolor* Panzer, preocc.)=*Pemphredon* (*Cemonus*) *rugifer* (Dahlbom). Monob.
Dineurus Westwood, 1837. Mag. Nat. Hist. (n. s.) 1: 173.
Type: (*Pemphredon unicolor* Latreille)=*Pemphredon* (*Cemonus*) *rugifer* (Dahlbom). Orig. desig.
Diphlebus Westwood, 1840. Introd. Mod. Classif. Ins. 2, Gen. Synop., p. 81.
Type: (*Pelopoeus unicolor* Fabricius)=*Pemphredon* (*Cemonus*) *rugifer* (Dahlbom). Orig. desig.
Chevrieria Kohl, 1883. Schweiz. Ent. Gesell. Mitt. 6: 658. Preocc.
Type: (*Pelopoeus unicolor* Fabricius)=*Pemphredon* (*Cemonus*) *rugifer* (Dahlbom). Orig. desig.

bipartior Fox. N. Y., D. C., Va., Mo., Tex. Nests in twigs of sumac and elder. Prey: ?*Eriosoma lanigerum* (Hausmann); *Rhopalosiphum rhois* Monell.
Pemphredon bipartior Fox, 1892. Amer. Ent. Soc. Trans. 19: 313. ♀.
Pemphredon bipartitor (!) Dalla Torre, 1897. Cat. Hym., v. 8, p. 356.
Biology: Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 369–373, figs. 46, 47.—Rau, 1934. Canad. Ent. 66: 259.

giffardi (Rohwer). Colo., Calif., B. C.
Cemonus giffardi Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 246. ♀.

grinnelli grinnelli (Rohwer). Calif. (Pasadena).
Ceratophorus gennelli (!) Rohwer, 1910. Ent. Soc. Wash. Proc. 12: 104. ♀. Typ. err. for *grinnelli*.

grinnelli utahensis (Rohwer). Ariz., Utah.
Ceratophorus grinnelli utahensis Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 562. ♀.

harbecki Rohwer. N. Y., N. J. Nests in *Sambucus* stems.
Pemphredon (*Cereonus*) (!) *harbecki* Rohwer, 1910. Ent. News 21: 170. ♀.

inornatus Say. East of Rockies, in Transit. and U. Austr. Zones. Nests in hollow stems of *Weigelia*. Prey: *Aphis gossypii* Glov.
Pemphredon inornatus Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 339.
Biology: Rau, 1948. Ent. Soc. Amer. Ann. 41: 326.

provancheri Dalla Torre. Que. (Cap Rouge).
Pemphredon concolor Provancher, 1882. Nat. Canad. 13: 78. ♀. Preocc.
Pemphredon Provancheri Dalla Torre, 1897. Cat. Hym., v. 8, p. 359. N. name.

tenax Fox. Transcont. in Transit. and U. Austr. Zones. Prey: *Macrosiphum rudbeckiae* (Fitch). Nests in rose, elder, and catalpa twigs, and in roots of uprooted tree.
Pemphredon tenax Fox, 1892. Amer. Ent. Soc. Trans. 19: 313. ♀ ♂.
Biology: Rau and Rau, 1918. Wasp Studies Afield, p. 108.—Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 373–375.—Rau, 1946. Brooklyn Ent. Soc. Bul. 41: 10.

Genus STIGMUS Panzer

Subgenus STIGMUS Panzer

Stigmus Panzer, 1804. Faunae Ins. German., heft 86, No. 7.
Type: *Stigmus pendulus* Panzer. Monob.
Antronius Dalman MS, 1838. *In* Zetterstedt, Ins. Lapponica, p. 443.
Type: *Stigmus pendulus* Panzer, 1804. Monob.

Species nest in twigs or deserted galls and provision the cells with Aphidae.

americanus Packard. Mass., R. I., N. Y., N. J., D. C., Va., Wis., Ill. Nests in stump. Prey: Aphidae from ?chokecherry.
Stigmus americanus Packard, 1867. Ent. Soc. Phila. Proc. 6: 386. ♀ ♂.
Biology: Peckham and Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 44–45.

aphidiperda Rohwer. Pa. (Highspire). Bred from young peach stems. Prey: *Anuraphis persicae-niger* (Smith).
Stigmus aphidiperda Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 558. ♀ ♂.

conestogorum Rohwer. N. J., Pa. Nest in old gall of *Disholcaspis quercus-globulus* (Fitch). Prey: Aphidae.
Stigmus conestogorum Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 557. ♀.
Biology: Richardson, 1915. Psyche 22: 104–105.

fraternus coloradensis Rohwer. Colo. (Ft. Collins).
Stigmus fraternus coloradensis Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 559. ♀.

fraternus fraternus Say. Conn., N. Y., Pa. Nests in stem of *Syringa*.
Stigmus fraternus Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 340.

fraternus raui Rohwer. Mo. (St. Louis). Nests in sassafras twig. Prey: Aphidae.
Stigmus fraternus raui Rohwer, 1923. Ent. Soc. Wash. Proc. 25: 100. ♀ ♂.
Biology: Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 379–381.

fulvicornis Rohwer. Miss. (Starksville). Nesting in floors of porch and in house. Prey: Aphidae.
Stigmus fulvicornis Rohwer, 1923. Wash. Acad. Sci. Jour. 13: 370. ♀.
Biology: M. R. Smith, 1923. Jour. Econ. Ent. 16: 553–554.

fulvipes Fox. Calif.
Stigmus fulvipes Fox, 1892. Amer. Ent. Soc. Trans. 19: 324. ♀.

fulvipes var. **coquilletti** Rohwer. Calif. (Los Angeles).
Stigmus fulvipes var. ***coquilletti*** Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 559. ♀ ♂.

inordinatus hubbardi Rohwer. Calif. (Palm Springs). Bred from *Polyporus*.
Stigmus inordinatus hubbardi Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 559. ♀ ♂.

inordinatus inordinatus Fox. Colo., N. Mex., Ariz., Calif. Prey: Aphidae.
Stigmus inordinatus Fox, 1892. Amer. Ent. Soc. Trans. 19: 322. ♀ ♂.

inordinatus universitatis Rohwer. Kans., Colo.
Stigmus inordinatus universitatis Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 102. ♀.

lucidus Rohwer. Kans. (Lawrence).
Stigmus lucidus Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 102. ♂.

reticulatus Mickel. Calif. (Marin Co.).
Stigmus reticulatus Mickel, 1918 (1917). Nebr. Univ., Studies 17: 330. ♀.

Genus PASSALOECUS Shuckard

Xyloecus Shuckard, 1837. Essay Indig. Fossor. Hym., Conspect. Gen., No. 25. Preocc.
Passaloecus Shuckard, 1837. Essay Indig. Fossor. Hym., p. 188. N. name.
Type: ***Pemphredon insignis*** Van der Linden. Orig. desig.
Coeloecus Verhoeff, 1890. Ent. Nachr. 16: 383.
Type: ***Diodontus gracilis*** Curtis. Desig. by Pate, 1937.
Heroecus Verhoeff, 1890. Ent. Nachr. 16: 383. No species.
Type: ***Pemphredon insignis*** Van der Linden. Included and desig. by Pate, 1937.
Taxonomy: Krombein, 1938. Brooklyn Ent. Soc. Bul. 33: 122–127 (key to N. Y spp.).

In Europe various species are rubicolous and provision the cells with Aphidae, the partitions between the cells being composed of resin. Some of our native species have been reared from logs or abandoned burrows of wood-boring Coleoptera. The Peckhams state that the partitions between cells of *annulatus* are of clay.

annulatus (Say). Widely distributed in U. S.; Ont. Nests in deserted burrows of *Pissodes strobi* (Peck), rustic furniture, and logs. Prey: Aphidae.
Pemphredon annulatus Say, 1837. Boston Jour. Nat. Hist. 1: 379. ♀ ♂.
Passalaccus* (!) *rivertonensis Viereck, 1904. Amer. Ent. Soc. Trans. 30: 243. ♂. N. syn.
Biology: Peckham and Peckham, 1905. Wasps, Social and Solitary, pp. 87–89.

armeniacae Cockerell and Fox. N. Mex., Ariz., Colo., Idaho, Calif., B. C.
Passaloecus armeniacae Cockerell and Fox, 1897. Acad. Nat. Sci. Phila. Proc., p. 141. ♀.

cuspidatus Smith. (See under *mandibularis* (Cresson).)

dispar Fox. Nev.
Passaloecus dispar Fox, 1892. Amer. Ent. Soc. Trans. 19: 320. ♂.

equalis Viereck. Kans. (Douglas Co.).
Passalaecus* (!) *equalis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 212. ♀.

gertrudis Krombein. Mass., N. Y., Ohio, Mich. Reared from abandoned burrows of *Pissodes strobi* (Peck).
Passaloecus gertrudis Krombein, 1938. Brooklyn Ent. Soc. Bul. 33: 124. ♀ ♂.

ithacae Krombein. Mass., Conn., N. Y., Ont., Minn.
Passaloecus ithacae Krombein, 1938. Brooklyn Ent. Soc. Bul. 33: 126. ♀ ♂.

mandibularis (Cresson). Transcont. chiefly in Transit. and U. Austr. Zones.
?***Passaloecus cuspidatus*** Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 427. ♀.
Pemphredon mandibularis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 487. ♀.
Passaloecus distinctus Fox, 1892. Amer. Ent. Soc. Trans. 19: 319. N. syn.

?marginatus (Say). Pa.
Pemphredon marginatus Say, 1837. Boston Jour. Nat. Hist. 1: 379.

melanocrus Rohwer. Tex., Colo., Ariz. Bred from abandoned burrows of *Dendroctonus barberi* Hopkins.
Passaloecus melanocrus Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 561. ♂.

melanognathus Rohwer. Oreg.
Passaloecus melanognathus Rohwer, 1910. Ent. Soc. Wash. Proc. 12: 104. ♀.

relativus Fox. Transcont. chiefly in Transit. and U. Austr. Zones.
Passaloecus relativus Fox, 1892. Amer. Ent. Soc. Trans. 19: 319. ♂.
Taxonomy: Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 100, ♀.

Genus SPILOMENA Shuckard

Celia Shuckard, 1837. Essay Indig. Fossor. Hym., p. 182. Preocc.
Type: ***Stigmus troglodytes*** Van der Linden. Monob. and orig. desig.
Spilomena Shuckard, 1838. Ent. Soc. London Trans. 2: 79 (footnote). N. name.
Microglossa Rayment, 1930. Roy. Soc. Victoria Proc. (n. s.) 42: 212. Preocc.
Type: ***Microglossa longifrons*** Rayment. Orig. desig.
Microglossella Rayment, 1935. A Cluster of Bees, p. 634. N. name.

Nothing is known concerning the ethology of our native species. In Europe *troglodytes* nests in twigs and provisions with immature Thysanoptera or Aphidae.

alboclypeata Bradley. B. C. (Revelstoke in Selkirk Mts.).
Spilomena alboclypeata Bradley, 1906. Canad. Ent. 38: 380. ♂.

foxii Cockerell. Colo., N. Mex., Ariz., Calif.
Spilomena foxii Cockerell, 1897. Entomologist 30: 136. ♀.

pusilla (Say). Del., D. C., N. C., Tenn., Ind., Iowa, Kans.
Stigmus pusillus Say, 1837. Boston Jour. Nat. Hist. 1: 378. ♀ ♂.

Genus XYSMA Pate

Xysma Pate, 1937. Amer. Ent. Soc. Trans. 63: 94.
Type: *Ammoplanus ceanothae* Viereck. Monob. and orig. desig.

ceanothae (Viereck). Pa., D. C., Va.
Ammoplanus ceanothae Viereck, 1904. Psyche 11: 72. ♀ (♀ in part, ♂, misdet.).

Genus AMMOPLANUS Giraud

Revision: Pate, 1943 (1942). South. Calif. Acad. Sci. Bul. 41: 141–163, 1 pl.

Subgenus AMMOPLANUS Giraud

"n. gen." Herrich-Schaeffer, 1840. Nomencl. Ent. 2: 53.
Ammoplanus Giraud, 1869. Soc. Ent. France Ann. (4) 9: 469.
Type: *Ammoplanus Perrisi* Giraud. Desig. by Pate, 1937.
Hoplocrabron De Stefani, 1886. Nat. Sicil. 6: 60.
Type: *Hoplocrabron Marathroicus* De Stefani. Monob.
Ammoplanus subg. *Ceballosia* Giner Mari, 1943. Eos 19: 293.
Type: *Ammoplanus rjabovi* Gussakovskij. Orig. desig.

Nothing is known as to the ethology of our species. In Europe and Africa species of this subgenus nest in pre-existing cracks in stone, wood or soil and provision the cells with immature Thysanoptera.

chemehuevi Pate. Calif. (Riverside Co.).
Ammoplanus (*Ammoplanus*) *chemehuevi* Pate, 1943 (1942). South. Calif. Acad. Sci. Bul. 41: 151. ♀ ♂.

loti Pate. Calif. (Riverside).
Ammoplanus (*Ammoplanus*) *loti* Pate, 1943 (1942). South. Calif. Acad. Sci. Bul. 41: 146. ♀.

quabajai Pate. Calif.
Ammoplanus (*Ammoplanus*) *quabajai* Pate, 1943 (1942). South. Calif. Acad. Sci. Bul. 41: 156. ♀.

sechi Pate. Calif. (Riverside Co.).
Ammoplanus (*Ammoplanus*) *sechi* Pate, 1943 (1942). South. Calif. Acad. Sci. Bul. 41: 149. ♂.

tetli Pate. Calif. (Tetly Park, San Bernardino Mts.).
Ammoplanus (*Ammoplanus*) *tetli* Pate, 1943 (1942). South. Calif. Acad. Sci. Bul. 41: 147. ♂.

unami Pate. Pa. (Lehigh Gap).
Ammoplanus (*Ammoplanus*) *unami* Pate, 1937. Amer. Ent. Soc. Trans. 63: 101. ♀.

vanyumi Pate. Calif., Idaho.
Ammoplanus (*Ammoplanus*) *vanyumi* Pate, 1943 (1942). South. Calif. Acad. Sci. Bul. 41: 154. ♀.

Subgenus PARAMMOPLANUS Pate

Ammoplanus subg. *Parammoplanus* Pate, 1939. Amer. Ent. Soc. Trans. 64: 391.
Type: *Ammoplanus* (*Ammoplanellus*) *apache* Pate. Orig. desig.

apache Pate. N. Mex., Ariz., Calif.
Ammoplanus (*Ammoplanellus*) *apache* Pate, 1937. Amer. Ent. Soc. Trans. 63: 106. ♂.

lenape lenape Pate. Pa. (Lehigh Gap).
Ammoplanus (*Ammoplanellus*) *lenape* Pate, 1937. Amer. Ent. Soc. Trans. 63: 104. ♂.

lenape olamentke Pate. Calif., Mont.
Ammoplanus (*Parammoplanus*) *lenape olamentke* Pate, 1943 (1942). South. Calif. Acad. Sci. Bul. 41: 160. ♀ ♂.

Subgenus AMMOPLANELLUS Gussakovskij

Ammoplanus subg. *Ammoplanellus* Gussakovskij, 1931. Soc. Espan. Hist. Nat. Bol. 31: 442.
Type: *Ammoplanus* (*Ammoplanellus*) *chorasmius* Gussakovskij. Monob. and orig. desig.

The species are thought to nest in pre-existing holes or crannies in wood, and possibly to provision the cells with Thysanoptera.

umatilla Pate. Wash.
Ammoplanus (*Ammoplanellus*) *umatilla* Pate, 1945. Pan-Pacific Ent. 21: 82. ♀.

xila Pate. Ariz. (Phoenix). Recorded as flying about chair containing burrows of *Hesperorhipis mirabilis* Knull.
Ammoplanus (*Ammoplanellus*) *xila* Pate, 1945. Pan-Pacific Ent. 21: 84. ♀.

Genus TIMBERLAKENA Pate

Revision: Pate, 1939. Amer. Ent. Soc. Trans. 64: 374–390, figs. 1, 2, 4, 5, 7–9, 13–16.

Subgenus RIPARENA Pate

Timberlakena subg. *Riparena* Pate, 1939. Amer. Ent. Soc. Trans. 64: 378.
Type: *Timberlakena* (*Riparena*) *cahuilla* Pate. Monob. and orig. desig.

cahuilla Pate. Calif. (Riverside Co.).
Timberlakena (*Riparena*) *cahuilla* Pate, 1939. Amer. Ent. Soc. Trans. 64: 378. ♀ ♂.

Subgenus MOJAVENA Pate

Timberlakena subg. *Mojavena* Pate, 1939. Amer. Ent. Soc. Trans. 64: 381.
Type: *Timberlakena* (*Mojavena*) *yucaipa* Pate. Monob. and orig. desig.

yucaipa Pate. Calif. (San Bernardino Co.).
Timberlakena (*Mojavena*) *yucaipa* Pate, 1939. Amer. Ent. Soc. Trans. 64: 381. ♀ ♂.

Subgenus TIMBERLAKENA Pate

Timberlakena subg. *Timberlakena* Pate, 1939. Amer. Ent. Soc. Trans. 64: 383.
Type: *Timberlakena* (*Timberlakena*) *nolcha* Pate. Orig. desig.

nolcha hualga Pate. Calif.
Timberlakena (*Timberlakena*) *nolcha hualga* Pate, 1939. Amer. Ent. Soc. Trans. 64: 388. ♀ ♂.

nolcha nolcha Pate. Ariz., Calif., Idaho.
Timberlakena (*Timberlakena*) *nolcha nolcha* Pate, 1939. Amer. Ent. Soc. Trans. 64: 385. ♀ ♂.

ocha Pate. Calif. (Riverside Co.).
Timberlakena (*Timberlakena*) *ocha* Pate, 1939. Amer. Ent. Soc. Trans. 64: 389. ♀.

Subfamily SPHECINAE[50]

Tribe SPHECINI

There is only one genus, *Sphex*, in this tribe. These wasps store their nests with Acrididae, Tettigoniidae, and Gryllidae. The various subgenera of *Sphex* apparently select certain groups of Orthoptera to the exclusion of others. Odd records in the literature indicate either that these selections are not absolutely fixed or that we are in need of more observations and positive identifications.

Genus SPHEX Linnaeus[51]

Revisions: Kohl, 1890. K. K. Naturhist. Hofmus. Ann. 5: 77–194, 317–462.—Fernald, 1906. U. S. Natl. Mus. Proc. 31: 291–423.

The treatment of *Sphex* has been conservative. It is recognized that some changes will have to be made in the future, but it is believed best to wait until a comprehensive revisional work has been made in order to insure stability.

Subgenus SPHEX Linnaeus

Sphex Linnaeus, 1758. Syst. Nat., ed. 10, v. 1, p. 569.
Type: ***Pepsis flavipennis*** Fabricius, 1793. Desig. by Internatl. Comn. Zool. Nomencl. Op. 180, 1946. Op. and Decl. by Internatl. Comn. Zool. Nomencl. 2: 569–585.

Ammobia Billberg, 1820. Enum. Ins., p. 105.
Type: (***Pepsis argentata*** Fabricius)=[***Sphex***] ***umbrosus*** Christ. Desig. by Rohwer, 1911.

Proterosphex Fernald, 1905. Ent. News 16: 165.
Type: ***Sphex maxillosa*** Fabricius. Orig. desig.

Wasps of this subgenus store their nests with Tettigoniidae.

ashmeadi (Fernald). Colo., Tex., N. Mex., Ariz.
Chlorion (Proterosphex) ashmeadi Fernald, 1906. U. S. Natl. Mus. Proc. 31: 389. ♀ ♂.

habenus Say. N. C. to Tex.
Sphex habena Say, 1832. New Sp. No. Amer. Ins. chiefly of Louisiana, p. 14. ♀.
Sphex lauta Cresson, 1872. Amer. Ent. Soc. Trans. 4: 212. ♀.
Sphex lauta var. ***illustris*** Cresson, 1872. Amer. Ent. Soc. Trans. 4: 210. ♀.
Sphex princeps Kohl, 1890. K. K. Naturhist. Hofmus. Ann. 5: 398. ♀.
Sphex chrysophorus Kohl, 1890. K. K. Naturhist. Hofmus. Ann. 5: 300. ♀.
Sphex lanciger Kohl, 1895. K. K. Naturhist. Hofmus. Ann. 10: 55. ♂.
Taxonomy: Fernald, 1931. Ent. Soc. Amer. Ann. 24: 442.—Fernald, 1942. Ent. News 53: 286.

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[50] By William Donald Murray, Visalia, Calif.

[51] The editors are not in agreement with the generic nomenclature employed by Dr. Murray for *Sphex* and *Ammophila*. It is our conviction that Opinion 180 (Internatl. Comn. Zool. Nomencl., 1946) constitutes a reversal of Opinion 32 which established *sabulosa* L. as the type of *Sphex*. The reversal of a previous opinion requires an affirmative vote by three-fourths of all the Commissioners (By-Laws, Internatl. Comn. Zool. Nomencl.). Since only 12 Commissioners out of 17 voted on Opinion 180, the opinion has no legality and we do not feel bound by it. Those who agree with this interpretation of the facts, and who wish to use the names as established by Opinion 32 and confirmed by usage in such major revisionary papers as Fernald's and Murray's on the North American fauna and Arnold's on the African fauna, will have to make the following changes in this catalog:
Tribe Sphecini, p. 971, becomes Chlorionini
Genus *Sphex*, p. 971, becomes Genus *Chlorion*
Subgenus *Ammobia* will replace Subgenus *Sphex*, p. 971.
Tribe Ammophilini, p. 974, becomes Sphecini
Genus *Ammophila*, p. 974, becomes *Sphex*

ichneumoneus aurifluus Perty. South. Fla.
Sphex auriflua Perty, 1834. Delect. Anim. Articul. Brasil., p. 142.
Sphex ichneumoneus var. *aurifluus* Kohl, 1890. K. K. Naturhist. Hofmus. Ann. 5: 431.

ichneumoneus fulviventris Guérin. South. Fla.
Sphex fulviventris Guérin, 1830. *In* Duperry, Voy. Coquille, Zool., v. 2, p. 1.
Sphex ichneumoneus var. *fulviventris* Kohl, 1890. K. K. Naturhist. Hofmus. Ann. 5: 431.

ichneumoneus ichneumoneus (Linnaeus). South. Canada, entire U. S.
Apis ichneumonea Linnaeus, 1758. Syst. Nat., ed. 10, p. 578.
Vespa Jamaicensis Drury, 1770. Illus. Nat. Hist., v. 1, p. 104.
?Sphex ornata Lepeletier, 1845. Hist. Nat. Ins., Hym., v. 3, p. 344.
Biology: Riley, 1878. U. S. Ent. Comn. for 1877, 1st Ann. Rpt., p. 318.—Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2, Sci. Ser. 1: 33–41.—Abbott, 1931. Iowa Acad. Sci. Proc. 38: 255–258.—Frisch, 1937. Amer. Midland Nat. 18: 1043–1062.—Fernald, 1945. Ent. Soc. Amer. Ann. 38: 458–460.

lucae Saussure. South. and West. States.
Sphex lucae Saussure, 1867. Reise d. Novara, Zool., v. 2, Hym., p. 41. ♀.
Sphex belfragei Cresson, 1872. Amer. Ent. Soc. Trans. 4: 212.

nudus Fernald. Southeast. States to south. Ill.
Sphex nudus Fernald, 1903. Psyche 10: 201. ♂.
Sphex bridwelli Fernald, 1903. Psyche 10: 202. ♀.

opacus flavitarsis (Fernald). Ga. to Tex. *S. opacus opacus* Dahlbom, 1845, occurs in Cent. and So. America.
Sphex flavipes Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 263. ♀. Preocc.
Chlorion (Proterosphex) flavitarsis Fernald, 1906. U. S. Natl. Mus. Proc. 31: 379. ♀ ♂. N. name.
Chlorion (Ammobia) opacus flavitarsis Fernald, 1931. Ent. Soc. Amer. Ann. 24: 442.

pensylvanicus Linnaeus. South. Canada, entire U. S.
Sphex pensylvanica Linnaeus, 1763. Centuria Ins. Rar., p. 30.
Biology: Frisch, 1938. Amer. Midland Nat. 19: 673–677.—Rau, 1944. Ent. Soc. Amer. Ann. 37: 439–440.

singularis Smith. Fla. to Tex.
Sphex singularis Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 261. ♂.
Sphex chlorargyrica Costa, 1862. Mus. Zool. Napoli Ann. 1: 66.
Sphex micans Taschenberg, 1869. Ztschr. Gesam. Naturw. Halle 34: 419. ♀. Preocc.
Sphex dubitata Cresson, 1872. Amer. Ent. Soc. Trans. 4: 213. ♀.
Sphex spiniger Kohl, 1890. K. K. Naturhist. Hofmus. Ann. 5: 428. ♂.
Sphex ichneumoneus dorsalis Kohl, 1890. K. K. Naturhist. Hofmus. Ann. 5: 431. ♀.
Taxonomy: Fernald, 1906. U. S. Natl. Mus. Proc. 31: 394.—Fernald, 1942. Ent. News 53: 286.

tepanecus Saussure. Ariz.
Sphex tepanecus Saussure, 1867. Reise d. Novara, Zool., v. 2, Hym., p. 41. ♂.
Sphex mexicana Taschenberg, 1869. Ztschr. Gesam. Naturw. Halle 34: 416. ♂. Preocc.

texanus Cresson. Tex.
Sphex texana Cresson, 1872. Amer. Ent. Soc. Trans. 4: 212. ♀ ♂.

Subgenus ISODONTIA Patton

Isodontia Patton, 1880. Boston Soc. Nat. Hist. Proc. 20: 380.
Type: (*Sphex philadelphica* Lepeletier, 1845)=[*Chlorion*] *harrisi* (Fernald). Orig. desig.

Wasps of this subgenus have been reported using certain Gryllidae and Tettigoniidae for storing their nests.

auripes (Fernald). East. States west to Mich. and Tex.
Sphex tibialis Lepeletier, 1845. Hist. Nat. Ins., Hym., v. 3, p. 339. ♀. Preocc.

Chlorion (Isodontia) auripes Fernald, 1906. U. S. Natl. Mus. Proc. 31: 356.
Biology: Rau, 1926, 1928. Acad. Sci. St. Louis, Trans. 25: 200–201, 362–368.

aztecus aztecus Saussure. U. S. from Coast to Coast from N. Y. south.
Sphex aztecus Saussure, 1867. Reise d. Novara, Zool., v. 2, Hym., p. 38. ♀.
Sphex robusta Cameron, 1889. Biol. Cent.-Amer., Hym., v. 2, p. 36. ♂.
Sphex (Isodontia) macrocephalus Fox, 1890. Ent. News 1:137. ♀.

aztecus cinereus (Fernald). S. C. to Tex.
Sphex apicalis Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 262. Preocc.
Isodontia macrocephala var. ***cinerea*** Fernald, 1903. Canad. Ent. 35: 271.
Chlorion aztecum cinereum Fernald, 1906. U. S. Natl. Mus. Proc. 31: 356.

elegans Smith. Colo., N. Mex., Calif.
Sphex elegans Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 262.
Biology: Davidson, 1899. Ent. News 10: 179–180.

exornatus (Fernald). N. C. to Tex.
Isodontia exornata Fernald, 1903. Canad. Ent. 35: 270.

harrisi (Fernald). East. States and Canada west to Rocky Mts.
Sphex apicalis Harris, 1835. *In* Hitchcock, Rpt. Geol. Mineral. Bot. Zool. Mass., p. 588. Nom. nud.
?Sphex philadelphica Lepeletier, 1845. Hist. Nat. Ins., Hym., v. 3, p. 340. ♀.
Sphex apicalis Saussure, 1867. Reise d. Novara, Zool., v. 2, Hym., p. 38. Preocc.
?Sphex apicalis var. ***mexicana*** Saussure, 1867. Reise d. Novara, Zool., v. 2, Hym., p. 38.
Chlorion (Isodontia) harrisi Fernald, 1906. U. S. Natl. Mus. Proc. 31: 359.

Subgenus PRIONONYX Dahlbom

Prononyx Dahlbom, 1844. Hym. Europaea, v. 1, p. 28.
Type: ***Sphex thomae*** Fabricius, 1775. Monob.

Wasps of this subgenus have been reported using various species of Acrididae for their nests.

atratus Lepeletier. Entire U. S. and South. Canada.
Sphex labrosa Harris, 1835. *In* Hitchcock, Rpt. Geol. Mineral. Bot. Zool. Mass., p. 588. Nom. nud.
Sphex atrata Lepeletier, 1845. Hist. Nat. Ins., Hym., v. 3, p. 355. ♀.
Prononyx brunnipes Cresson, 1872. Amer. Ent. Soc. Trans. 4: 213. ♂.
Biology: Williams, 1913. Kans. Univ. Sci. Bul. 8: 227–230.—Strandtmann, 1945. Ent. Soc. Amer. Ann. 38: 308–310.

ferrugineus Fox. N. Mex. to Calif.
Sphex (Prononyx) ferrugineus Fox, 1892. Ent. News 3: 170. ♀.

pubidorsus (Costa). Entire U. S.
Enodia pubidorsum Costa, 1862. Mus. Zool. Napoli Ann. 1: 69. ♂.
Prononyx bifoveolata Taschenberg, 1869. Ztschr. Gesam. Naturw. Halle 34: 408. ♂.
Prononyx canadensis Provancher, 1889. Addit. Corr. Faune Ent. Canada Hym., p. 258.
Sphex excisus Kohl, 1890. K. K. Naturhist. Hofmus. Ann. 5: 362.
Chlorion (Prononyx) bifoveolatum Fernald, 1906. U. S. Natl. Mus. Proc. 31: 346. ♀ ♂.
Chlorion pubidorsum Fernald, 1931. Ent. Soc. Amer. Ann. 24: 441.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 23.

striatus (Smith). Nev., Ariz.
Prononyx striata Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 266.
Sphex (Prononyx) laerma Cameron, 1897. Ann. and Mag. Nat. Hist. (6) 19: 370.

thomae Fabricius. Southeast. States, West. States.
Sphex thomae Fabricius, 1775. Systema Ent., p. 346. ♂.
Pepsis crucis Fabricius, 1804. Systema Piezatorum, p. 209. ♀.
Biology: Hartman, 1905. Tex. Univ. Bul. 65, Sci. Ser. 6: 62–65.—Williams, 1913. Kans. Univ. Sci. Bul. 8: 227.

Subgenus PALMODES Kohl

Palmodes Kohl, 1890. K. K. Naturhist. Hofmus. Ann. 5: 112.
Type: ***Sphex occitanica*** Lepeletier and Serville, 1828. Desig. by Fernald, 1906.

daggyi Murray, n. name. Entire U. S. except Far Northwest.
Sphex abdominalis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 211. ♂. Preocc. by Fabricius, 1775.

laeviventris Cresson. N. Dak. to Calif.
Sphex laeviventris Cresson, 1865. Ent. Soc. Phila. Proc. 4: 463. ♀ ♂.
Sphex morio Kohl, 1890. K. K. Naturhist. Hofmus. Ann. 5: 321. ♂.
Biology: Williams, 1913. Kans. Univ. Sci. Bul. 8: 227.—LaRivers, 1945. Amer. Midland Nat. 33: 743–763.

praestans Kohl. Utah, Calif.
Sphex (Palmodes) praestans Kohl, 1890. K. K. Naturhist. Hofmus. Ann. 5: 323. ♀.

rufiventris opuntiae (Rohwer). Tex.
Chlorion (Palmodes) rufiventris var. ***opuntiae*** Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 257. ♀.

rufiventris rufiventris Cresson. Kans. to Calif., "Can."
Sphex rufiventris Cresson, 1872. Amer. Ent. Soc. Trans. 4: 211. ♀.
Biology: Coquillet, 1885. U. S. Dept. Agr. Ent. Rpt. 1885, p. 289.—Williams, 1913. Kans. Univ. Sci. Bul. 8: 227.

Subgenus CHLORION Latreille

Chlorion Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 333.
Type: ***Sphex lobata*** Fabricius, 1775. Monob.

aerarius Patton. Entire U. S.
Sphex coerulea Drury, 1773. Illus. Nat. Hist., v. 2, p. 75. Preocc.
Chlorion cyaneum Dahlbom, 1843. Hym. Europaea, v. 1, p. 24. Preocc.
Chlorion aerarium Patton, 1879. Canad. Ent. 11: 133. ♀.
Sphex (Chlorion) nearcticus Kohl, 1890. K. K. Naturhist. Hofmus. Ann. 5: 186. ♀ ♂.
Sphex (Chlorion) occultus Kohl, 1890. K. K. Naturhist. Hofmus. Ann. 5: 187. ♀ ♂.
Biology: Peckham, 1900. Wis. Nat. Hist. Soc. Bul. 1: 85–87.—Peckham, 1905. Wasps, Social and Solitary, pp. 256–261.

Tribe AMMOPHILINI

These wasps store their nests with Lepidoptera larvae.

Genus AMMOPHILA Kirby[52]

Ammophila Kirby, 1798. Linn. Soc. London Trans. 4: 199.
Type: ***Sphex sabulosa*** Linnaeus, 1758. Desig. by Internatl. Comn. Zool. Nomencl. Op. 180, 1946. Op. and Decl. by Internatl. Comn. Zool. Nomencl. 2: 569–585.
Coloptera Lepeletier, 1845. Hist. Nat. Ins., Hym., v. 3, p. 387.
Type: ***Coloptera barbara*** Lepeletier. Monog.
Revisions: Melander, 1903. Psyche 10: 156–164.—Fernald, 1934. No. Amer. and W. Indies *Sphex*, 167 pp.

A monographic revision of the genus *Ammophila* is now in progress. In the present catalog certain changes from published literature have been based on information gathered during the preparation of this revision.

[52] See footnote 51 on p. 971.

aberti Haldeman. West. Provinces and States east to Iowa.
Ammophila aberti Haldeman, 1853. Stansburys Explor. Survey Salt Lake, App. C, Ins., p. 368. Probably ♀.
Ammophila yarrowi Cresson, 1875. Rpt. Geog. Geol. Explor. and Survey west of 100th Meridian, v. 5, p. 713. ♂.
?Ammophila montezuma Cameron, 1888. Biol. Cent.-Amer., Hym., v. 2, p. 13. ♂.
Sphex transversus Fernald, 1934. No. Amer. and W. Indies *Sphex*, p. 141. ♂.
Biology: Williston, 1892. Ent. News 3: 85-86.—Hicks, 1932. Canad. Ent. 64: 145–151.

acuta (Fernald). N. Mex., Ariz.
Sphex acutus Fernald, 1934. No. Amer. and W. Indies *Sphex*, p. 150. ♂.

arvensis (Dahlbom). East. Provinces and States to Minn.
Miscus arvensis Dahlbom, 1843. Hym. Europaea, v. 1, p. 8.

aureonotata Cameron. East. Provinces and States to Tex.
?Ammophila gracilis Lepeletier, 1845. Hist. Nat. Ins., Hym., v. 3, p. 381. ♀.
Ammophila abbreviata Cresson, 1887. Amer. Ent. Soc. Trans. Sup., p. 274. Preocc.
Ammophila aureonotata Cameron, 1888. Biol. Cent.-Amer., Hym., v. 2, p. 7. ♀ ♂.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 23.

breviceps Smith. Southwest U. S.
Ammophila breviceps Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 221. ♀.

centralis Cameron. Ariz.
Ammophila centralis Cameron, 1888. Biol. Cent.-Amer., Hym., v. 2, p. 6. ♂.

chiriquensis Cameron. Ariz., Calif.
Ammophila chiriquensis Cameron, 1888. Biol. Cent-Amer., Hym., v. 2, p. 18. ♀.

conditor Smith. Fla.
Ammophila conditor Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 223. ♀.

consors Cameron. N. Mex.
Ammophila consors Cameron, 1888. Biol. Cent.-Amer., Hym., v. 2, p. 12. ♀ ♂.

denningi Murray, n. name. Colo. to Ariz.
Sphex dubius Fernald, 1934. No. Amer. and W. Indies *Sphex*, p. 139. Preocc. by Kohl, 1901.

fernaldi (Murray). Man. to N. Mex., rarely east to N. J.
Sphex fernaldi Murray, 1938. Ent. Soc. Amer. Ann. 31: 19. ♀ ♂.

ferruginosa Cresson. Minn. to Calif.
Ammophila ferruginosa Cresson, 1865. Ent. Soc. Phila. Proc. 4: 455. ♀.
Ammophila collaris Cresson, 1865. Ent. Soc. Phila. Proc. 4: 456. ♂.
Sphex cressoni Smith, 1908. Nebr. Univ., Studies 8: 329. ♂.

harti (Fernald). Vt. to Alta. to Tex.
Ammophila argentata Hart, 1907. Ill. State Lab. Nat. Hist. Bul. 7: 266. ♀ ♂. Preocc.
Sphex harti Fernald, 1931. Ent. Soc. Amer. Ann. 24: 450.
Biology: Peckham, 1900. Wis. Nat. Hist. Soc. Bul. 1: 90–91.(identified as *A. polita*). —Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 23.

juncea Cresson. Most of U. S. except New England.
Ammophila juncea Cresson, 1865. Ent. Soc. Phila. Proc. 4: 460. ♂.

kennedyi (Murray). Entire U. S. and South. Canada.
Ammophila vulgaris Cresson, 1865. Ent. Soc. Phila. Proc. 4: 458. ♀ ♂. Preocc.
Sphex kennedyi Murray, 1938. Ent. Soc. Amer. Ann. 31: 36.

leoparda (Fernald). Minn. southwest to Tex., east to Ga., north to Mich.
Sphex urnarius leopardus Fernald, 1934. No. Amer. and W. Indies *Sphex*, p. 125. ♀ ♂.
Sphex leopardus Murray, 1938. Ent. Soc. Amer. Ann. 31: 29.

mediata Cresson. Ont. to B. C., Mich. to Colo.
Ammophila mediata Cresson, 1865. Ent. Soc. Phila. Proc. 4: 459. ♀ ♂.
Sphex mediatus Murray, 1938. Ent. Soc. Amer. Ann. 31: 24.

nasalis Provancher. Calif.
Ammophila nasalis Provancher, 1895. Nat. Canad. 22: 111. ♂.
Sphex craspedotus Fernald, 1934. No. Amer. and W. Indies *Sphex*, p. 96. ♀. N. syn.

nearctica Kohl. "Wash. Terr.," Calif.
Ammophila nearctica Kohl, 1889. Zool.-Bot. Gessell. Wien Verh. 39: 18. ♂.

nigricans Dahlbom. Entire U. S. except far northwest States.
Ammophila nigricans Dahlbom, 1843. Hym. Europaea, v. 1, p. 14. ♂.
?Ammophila intercepta Lepeletier, 1845. Hist. Nat. Ins., Hym., v. 3, p. 378. ♀.
Biology: Strandtmann, 1945. Ent. Soc. Amer. Ann. 38: 310.

novita (Fernald). Utah, Ariz.
Sphex novitus Fernald, 1934. No. Amer. and W. Indies *Sphex*, p. 147. ♀ ♂.

parapolita (Fernald). Wash., Oreg., Idaho, Nev., Utah, Calif.
Sphex parapolitus Fernald, 1934. No. Amer. and W. Indies *Sphex*, p. 51. ♀ ♂.

peckhami (Fernald). Mont. to Ariz.
Sphex peckhami Fernald, 1934. No. Amer. and W. Indies *Sphex*, p. 93. ♂.

pilosa brevisericea Murray, n. name. Ont. to Alta., Mich. to Ore.
Sphex pilosus nudus Murray, 1938. Ent. Soc. Amer. Ann. 31: 28. ♂ ♀. Preocc. by Fernald, 1903.

pilosa pilosa (Fernald). Alta., Iowa to Calif.
Sphex pilosus Fernald, 1934. No. Amer. and W. Indies *Sphex*, p. 120. ♀ ♂.
Sphex aculeatus Fernald, 1934. No. Amer. and W. Indies *Sphex*, p. 145. ♀ ♂.

placida Smith. Entire U. S.
Ammophila placida Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 221. ♂.
?Ammophila extremitata Cresson, 1865. Ent. Soc. Phila. Proc. 4: 457. ♀.
Ammophila pictipennis Walsh, 1869. Amer. Ent. 1: 128, 164. ♀ ♂.
Ammophila anomala Taschenberg, 1869. Ztschr. Gesam. Naturw. Halle 34: 434. ♀ ♂.
?Sphex nigropilosus Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 465. ♀.
Biology: Walsh and Riley, 1868. Amer. Ent. 1: 128.—Strandtmann, 1945. Ent. Soc. Amer. Ann. 38: 310–311.

polita Cresson. Nebr. to Calif.
Ammophila polita Cresson, 1865. Ent. Soc. Phila. Proc. 4: 458. ♀.

procera Dahlbom. South. Canada and entire U. S.
Ammophila procera Dahlbom, 1843. Hym. Europaea, v. 1, p. 15.
Ammophila gryphus Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 460. ♂.
Ammophila macra Cresson, 1865. Ent. Soc. Phila. Proc. 4: 460. ♂.
?Ammophila barbata Smith, 1873. Ann. and Mag. Nat. Hist. (4) 12: 260. ♀.
?Ammophila ceres Cameron, 1888. Biol. Cent.-Amer., Hym., v. 2, p. 8. ♂.
?Ammophila championi Cameron, 1888. Biol. Cent.-Amer., Hym., v. 2, p. 9. ♀.
?Ammophila striolata Cameron, 1888. Biol. Cent.-Amer., Hym., v. 2, p. 10. ♀.
Biology: Hartman, 1905. Tex. Univ. Bul. 65, Sci. Ser. 6: 11–20.—Criddle, 1924. Canad. Field Nat. 38: 121–123.—Wheeler, 1924. Science 59: 486.

pruinosa Cresson. West. States.
Ammophila pruinosa Cresson, 1865. Ent. Soc. Phila. Proc. 4: 455. ♀ ♂.
Sphex breviceps pruinosus Fernald, 1934. No. Amer. and W. Indies *Sphex*, p. 87. ♀ ♂.

saeva Smith. Calif. and Southwest. States.
Ammophila saeva Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 222. ♀.

strenua Cresson. West. States.
Ammophila strenua Cresson, 1865. Ent. Soc. Phila. Proc. 4: 459. ♀.

trichiosoma Cameron. N. Mex., Ariz.
Ammophila trichiosoma Cameron, 1888. Biol. Cent.-Amer., Hym., v. 2, p. 11. ♂.

urnaria floridensis (Fernald). Fla., Ga.
Sphex arvensis floridensis Fernald, 1933. Ent. News 44: 236. *Nom. nud.*
Sphex floridensis Fernald, 1934. No. Amer. and W. Indies *Sphex*, p. 126. ♀ ♂.
Sphex urnarius floridensis Murray, 1938. Ent. Soc. Amer. Ann. 31: 36. ♂ ♀.
Biology: Fernald, 1933. Ent. News 44: 236–238.

urnaria urnaria Dahlbom. East. Provinces and States to Tex.
Ammophila urnaria Dahlbom, 1843. Hym. Europaea, v. 1, p. 14.
Ammophila inepta Cresson, 1872. Amer. Ent. Soc. Trans. 4: 209. ♀ ♂.
Biology: Peckham, 1905. Wasps, Social and Solitary, pp. 15–55.

varipes Cresson. Minn. to Calif.
Ammophila varipes Cresson, 1865. Ent. Soc. Phila. Proc. 4: 457. ♀ ♂.

volcanica Cameron. Southwest. States.
Ammophila volcanica Cameron, 1888. Biol. Cent.-Amer., Hym., v. 2, p. 17. ♀.
Ammophila femur-rubra Fox, 1894. Calif. Acad. Sci. Proc. (2) 4: 102. ♀.

wrightii (Cresson). West. States.
Coloptera wrightii Cresson, 1865. Amer. Ent. Soc. Trans. 1: 378. ♀.

xanthoptera Cameron. Southwest. States.
Ammophila xanthoptera Cameron, 1888. Biol. Cent.-Amer., Hym., v. 2, p. 8. ♀.
Biology: Hicks, 1932. Canad. Ent. 64: 193.

Genus PODALONIA Spinola

Psammophila Dahlbom, 1842. Dispos. Method. Spec. Scand. Ins. Hym., pt. 1, pp. 2, 8. Preocc.
Type: *Ammophila affinis* Kirby. Desig. by Fernald, 1927.
Podalonia Spinola, 1853. Accad. Sci. Torino Mem. (2) 13: 53.
Type: *Podalonia bocandei* Spinola. Monob.
Revision: Melander, 1903. Psyche 10: 156–164.—Fernald, 1927. U. S. Natl. Mus. Proc. 71 (9): 1–42.—Murray, 1940. Ent. Amer. (n. s.) 20: 1–82.

argentifrons (Cresson). West. States and Provinces.
Ammophila argentifrons Cresson, 1865. Phila. Ent. Soc. Proc. 4: 462. ♂.

caerulea Murray. Calif.
Podalonia caerulea Murray, 1940. Ent. Amer. (n. s.) 20: 67. ♂.

clypeata Murray. West. States to Minn.
Podalonia clypeata Murray, 1940. Ent. Amer. (n. s.) 20: 49. ♂ ♀.

communis (Cresson). West. States to Black Hills, S. Dak.
Ammophila communis Cresson, 1865. Phila. Ent. Soc. Proc. 4: 462. ♂.
Biology: Newcomer, 1930. Ent. Soc. Amer. Ann. 23: 552–563.—Hicks, 1931. South. Calif. Acad. Sci. Bul. 30: 75–82.—Hicks, 1932. Psyche 39: 150–154.

compacta Fernald. Calif., Oreg.
Podalonia violaceipennis var. *compacta* Fernald, 1927. U. S. Natl. Mus. Proc. 71 (9): 33. ♀ ♂.
Podalonia compacta Murray, 1940. Ent. Amer. (n. s.) 20: 73. ♂ ♀.

luctuosa (Smith). Canada, West. States, north. tier of states to Maine.
Ammophila luctuosa Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 224. ♀.
Psammophila pacifica Melander and Brues, 1902. Biol. Bul. 3: 40. ♂.
Biology: Newcomer, 1930. Ent. Soc. Amer. Ann. 23: 552–563.—Hicks, 1931. South. Calif. Acad. Sci. Bul. 30: 75–82.—Hicks, 1932. Psyche 39: 150–154.

melaena Murray. West. States.
Podalonia melaena Murray, 1940. Ent. Amer. (n. s.) 20: 34. ♂ ♀.

mexicana (Saussure). West. States and Provinces.
Ammophila mexicana Saussure, 1867. Reise d. Novara, Zool., v. 2, Hym., p. 25. ♂ ♀.

mickeli Murray. West. Provinces and States to Minn.
Podalonia mickeli Murray, 1940. Ent. Amer. (n. s.) 20: 68. ♂ ♀.

morrisoni (Cameron). Ariz., Calif.
Ammophila morrisoni Cameron, 1888. Biol. Cent.-Amer., Hym., v. 2, p. 21. ♂.
Psammophila nicholi Carter, 1924. Ent. News 35: 366. ♂.

occidentalis Murray. Alta., West. States.
Podalonia occidentalis Murray, 1940. Ent. Amer. (n. s.) 20: 54. ♂ ♀.

parallela Murray. Calif.
Podalonia parallela Murray, 1940. Ent. Amer. (n. s.) 20: 65. ♂ ♀.

pubescens Murray. Tex. to Ariz.
Podalonia pubescens Murray, 1940. Ent. Amer. (n. s.) 20: 47. ♂ ♀.

puncta Murray. Kans., Colo., Okla., Tex., N. Mex.
Podalonia puncta Murray, 1940. Ent. Amer. (n. s.) 20: 36. ♂ ♀.

robusta (Cresson). Canada, West. States, north. tier of states to Maine.
Ammophila robusta Cresson, 1865. Phila. Ent. Soc. Proc. 4: 461. ♀.
Biology: Balduf, 1936. Canad. Ent. 68: 137–138.—Krombein, 1936. Ent. News 47: 93–99.

sericea Murray. West. Provinces and States east to the Dakotas, very rare to Mich.
Podalonia sericea Murray, 1940. Ent. Amer. (n. s.) 20: 57. ♂ ♀.

sonorensis differentia Murray. Alta., N. Dak., Colo., Oreg., Calif.
Podalonia sonorensis differentia Murray, 1940. Ent. Amer. (n. s.) 20: 33. ♂ ♀.

sonorensis sonorensis (Cameron). Colo., N. Mex., Ariz.
Ammophila sonorensis Cameron, 1888. Biol. Cent.-Amer., Hym., v. 2, p. 21. ♂ ♀.
Podalonia sonorensis sonorensis Murray, 1940. Ent. Amer. (n. s.) 20: 31. ♂ ♀.

valida (Cresson). West. Provinces and States east to Minn.
Ammophila valida Cresson, 1865. Phila. Ent. Soc. Proc. 4: 461. ♀.
Ammophila grossa Cresson, 1872. Amer. Ent. Soc. Trans. 4: 209. ♀.

violaceipennis (Lepeletier). East. States west to Colo.
Ammophila violaceipennis Lepeletier, 1845. Hist. Nat. Ins., Hym., v. 3, p. 370. ♀.
Ammophila caementaria Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 224. ♀.
Biology: Parker, 1915. Ent. Soc. Wash. Proc. 17: 70–77.—Balduf, 1936. Canad. Ent. 68: 137–138.

Tribe SCELIPHRONINI

These wasps build clay cells in sheltered situations and store them with spiders.

Genus SCELIPHRON Klug

Sceliphron Klug, 1801. Neue Schr. Gesell. Naturf. Freunde Berlin 3: 561.
Type: (*Sphex spirifex* Linnaeus)=[*Sphex*] *aegyptium* (Linnaeus). Desig. by Bingham, 1897.
Pelopoeus Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 334.
Type: (*Sphex spirifex* Linnaeus)=[*Sphex*] *aegyptium* (Linnaeus). Desig. by Latreille, 1810.
Revision: Kohl, 1918. K. K. Naturhist. Hofmus. Ann. 32: 1–171.—Porter, 1926. U. S. Natl. Mus. Proc. 70 (1): 1–22.

These wasps, commonly known as mud-daubers, make their nests of mud and store them with spiders of various species.

assimilis (Dahlbom). Tex.
Pelopoeus assimilis Dahlbom, 1843. Hym. Europaea, v. 1, p. 23. ♀ ♂.
Sceliphron caementarium var. ***nicaraguanum*** Kohl, 1918. K. K. Naturhist. Hofmus. Ann. 32: 118.

caementarium (Drury). South. Canada and entire U. S.
Sphex caementaria Drury, 1770. Illus. Nat. Hist., v. 1, p. 105. ♀ ♂.
Sphex flavomaculata DeGeer, 1773. Mem. Hist. Ins., v. 3, p. 588.
Sphex lunata Fabricius, 1775. Systema Ent., p. 347.
Sphex flavipes Fabricius, 1781. Species Ins., p. 444.
Sphex flavipunctata Christ, 1791. Naturgesch. Class. Nomencl., p. 301.
Sphex affinis Fabricius, 1793. Ent. System., v. 2, p. 203.
Pelopoeus architectus Lepeletier, 1845. Hist. Nat. Ins., Hym., v. 3, p. 313. ♀.
Pelopoeus servillei Lepeletier, 1845. Hist. Nat. Ins., Hym., v. 3, p. 313. ♀.
Pelopoeus solieri Lepeletier, 1845. Hist. Nat. Ins., Hym., v. 3, p. 318. ♀.
Pelopoeus canadensis Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 233. ♂.
Pelopoeus nigriventris Costa, 1864. Mus. Zool. Napoli Ann. 2: 60.
Biology: Peckham, 1898. Wis. Geol. and Nat. Hist. Survey Bul. 2 (Sci. Ser. 1): 176–199.—Peckham, 1905. Wasps, Social and Solitary, pp. 265–274.—Rau, 1918. Wasp Studies Afield, pp. 118–124.—Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 443–466.

lucae (Saussure). Calif.
Pelopoeus lucae Saussure, 1867. Reise d. Novara, Zool., v. 2, Hym., p. 30. ♀ ♂.

Genus CHALYBION Dahlbom

Chalybion Dahlbom, 1843. Hym. Europaea, v. 1, p. 21.
Type: (***Sphex cyanea*** Fabricius)=[***Pelopoeus***] ***californicum*** (Saussure). Desig. by Patton, 1880.
Revision: Kohl, 1918. K. K. Naturhist. Hofmus. Ann. 32: 1–171.—Hutson, 1919. Amer. Ent. Soc. Trans. 45: 203–227.

These wasps are, in a sense, parasitic on *Sceliphron* spp. They tear open the mud nests made by *Sceliphron*, haul out the enclosed spiders, then restock the nests with spiders of their own choice and reseal the opening. These wasps have been recorded using the black widow spider, *Latrodectus mactans* (Fabricius), for storing their nests.

californicum (Saussure). Canada and entire U. S.
Sphex caerulea Johansson and Linnaeus, 1763. Amoenitates Academicae, v. 6, No. 90, p. 412. Preocc.
Sphex cyanea Fabricius, 1775. Systema Ent., No. 5, p. 346. Preocc.
Chalybion cyaneum Dahlbom, 1843. Hym. Europaea, v. 1, No. 3, p. 22. Preocc.
Pelopoeus (Chalybion) californicus Saussure, 1867. Reise d. Novara, Zool., v. 2, Hym., p. 26.
Chalybion californicum Pate, 1942. Canad. Ent. 74: 217.
Biology: Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2 (Sci. Ser. 1): 176–199.—Peckham, 1905. Wasps Social and Solitary, pp. 265–274.—Rau, 1926. Acad. Sci. St. Louis, Trans. 25: 201–202.

zimmermanni Dahlbom. Carolinas to Calif.
Chalybion zimmermanni Dahlbom, 1843. Hym. Europaea, v. 1, p. 22. ♀ ♂.
Pelopoeus texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 210. ♀ ♂.
Biology: Rau, 1942. Canad. Ent. 74: 196.

Tribe PODIINI

These wasps store their nests with cockroaches. The tribe is almost exclusively Neotropical.

Genus PODIUM Fabricius

Podium Fabricius, 1805. Systema Piezatorum, pp. x, 183.
Type: ***Podium rufipes*** Fabricius. Desig. by Latreille, 1810.

Talthybius Rafinesque, 1815. Analyse Nature ou Tabl. Univers, Palermo, p 124. N. name.
Type: ***Podium rufipes*** Fabricius. Autob.
Parapodium Taschenberg, 1869. Ztschr. Gesam. Naturw. Halle 34: 423.
Type: (***Parapodium biguttatum*** Taschenberg)=[***Podium***] ***rufipes*** Fabricius. Monob.
Revision: Kohl, 1902. Zool.-Bot. Gesell. Wien, Abh. 1 (4): 1–101.

carolina Rohwer. N. Y. to N. C.
Podium carolina Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 556. ♀.
Biology: Rau, 1937. Ent. News 48: 91–93.

luctuosum Smith. N. Y. to Tex.
Podium luctuosum Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 235. ♀.

rufipes Fabricius. Tex.
Podium rufipes Fabricius, 1805. Systema Piezatorum, p. 183.
Parapodium biguttatum Taschenberg, 1869. Ztschr. Gesam. Naturw. Halle 34: 423. ♂ ♀.

Subfamily NYSSONINAE

So far as is known, the Nearctic species nest in the soil. The Nyssonini are inquilines in the nests of other sphecoid wasps or bees.

Taxonomy: Rohwer, 1921. U. S. Natl. Mus. Proc. 59: 404 (key to tribes).—Pate, 1938. Amer. Ent. Soc. Trans. 64: 119–120 (key to tribes).

Tribe MELLININI[53]

Catalog: Maidl and Klima, 1939. Hym. Cat., Pars 8, Sphecidae, v. 1, pp. 30–43.

Genus MELLINUS Fabricius

Mellinus Fabricius, 1790. Skrivt. Naturhist. Selsk., h. 1, p. 226.
Type: ***Vespa arvensis*** Linnaeus. Desig. by Curtis, 1836.
Revision: Fox, 1894. Ent. News 5: 201–203.

European species nest in soil and provision the cells with adult Diptera.

abdominalis Cresson. Nebr., Mont.
Mellinus abdominalis Cresson, 1882 (1881). Amer. Ent. Soc. Trans. 9: Proc. p. xxxix. ♀ ♂.

abdominalis var. **personatus** Fox. Mont.
Mellinus abdominalis var. ***personatus*** Fox, 1894. Ent. News 5: 202. ♀.

bimaculatus Packard. Maine, N. H., Mass., N. J., Ohio.
Mellinus bimaculatus Harris, 1835. *In* Hitchcock, Rpt. Geol. Mineral. Bot. Zool. Mass., p. 68. *Nom. nud.*
Mellinus bimaculatus Packard, 1867. Ent. Soc. Phila. Proc. 6: 419. ♀.

rufinodus Cresson. Colo., Mont.
Mellinus rufinodus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 475. ♀ ♂.

wolcotti H. S. Smith. Mich. (Beaver Isl.).
Mellinus wolcotti H. S. Smith, 1908. Ent. News 19:299. ♀. Erroneously recorded from Beaver, Ind.

Tribe ALYSSONINI[54]

Revision: Handlirsch, 1895. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 104: 830–839.

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[53] [54] By Karl V. Krombein, U. S. Bureau of Entomology and Plant Quarantine.

Genus ALYSSON Panzer

Alysson Jurine, 1801. Intell. Blatt. Litt.-Ztg. Erlangen, v. 1, p. 164. Name suppressed by Internatl. Comn. Zool. Nomencl. Op. 135, 1939.
Alysson Panzer, 1806. Krit. Rev. Insektenf. Deutschlands, v. 2, p. 169.
Type: ***Pompilus spinosus*** Panzer. Desig. by Morice and Durrant, 1914.
Alyson (!) Jurine, 1807. Nouv. Meth. Class. Hym. Dipt., p. 195.
Revision: Fox, 1894. Ent. News 5: 86–89.

conicus Provancher. Ont., N. H., N. Y., Mich.
Alyson (!) ***conicus*** Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 271. ♀.

guignardi Provancher. Que., N. H., R. I., N. Y., N. J., Md., Va., N. C., Ont., Mich., Ill., Kans.
Alyson (!) ***Guignardi*** Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 271. ♀ ♂.

interstitialis Cameron. N. Mex. (Santa Fe).
Alyson (!) ***interstitialis*** Cameron, 1902. Amer. Ent. Soc. Trans. 28: 375. ♂.

melleus Say. U. and L. Austr. Zones east of 100th meridian. Nests in sandy soil. Prey: *Agalliopsis novella* (Say); *Tylozygus bifida* (Say); *Empoasca fabae* (Harr.); *Colladonus clitellarius* (Say); *Exitianus exitiosus* (Uhler).
Alyson (!) ***melleus*** Say, 1837. Boston Jour. Nat. Hist. 1: 380. ♀.
Biology: Hartman, 1905. Tex. Acad. Sci. Trans. 7: 56–57.—Rau and Rau, 1918. Wasp Studies Afield, pp. 140–144, fig. 33.

oppositus Say. Transit. and U. Austr. Zones east of Rockies.
Alyson (!) ***oppositus*** Say, 1837. Boston Jour. Nat. Hist. 1: 380. ♀ ♂.
Alyson (!) ***oppositus*** var. ***a*** Say, 1837. Boston Jour. Nat. Hist. 1: 380.

petiolatus Cameron. N. Mex. (Santa Fe).
Alyson (!) ***petiolatus*** Cameron, 1902. Amer. Ent. Soc. Trans. 28: 374. ♂.

radiatus Fox. Colo., Nev., Calif.
Alyson (!) ***radiatus*** Fox, 1894. Ent. News 5: 87. ♀ ♂.

striatus Fox. D. C.
Alyson (!) ***striatus*** Fox, 1894. Ent. News 5: 88. ♂.

triangulifer shawi Bradley, n. status. Nev., B. C., Calif.
Alysson shawi Bradley, 1920. Amer. Ent. Soc. Trans. 46: 130. ♂.

triangulifer triangulifer Provancher. Chiefly Transit. Zone east of 100th meridian.
Alyson (!) ***triangulifer*** Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 272. ♂.

Genus DIDINEIS Wesmael

Didineis Wesmael, 1852. Acad. Roy. Belg. Bul. 19: 109.
Type: ***Pompilus lunicornis*** Fabricius. Monob.
Revisions: Fox, 1894. Ent. News 5: 126–128.—Malloch and Rohwer, 1930. U. S. Natl. Mus. Proc. 77 (14) 1–7, 8 figs.

The species undoubtedly nest in the soil; one was captured with a fulgorid.

dilata Malloch and Rohwer. Wis. (Columbus).
Didineis dilata Malloch and Rohwer, 1930. U. S. Natl. Mus. Proc. 77 (14): 6. ♂.

latimana Malloch and Rohwer. N. J., Md., Va., Ill., Iowa.
Didineis latimana Malloch and Rohwer, 1930. U. S. Natl. Mus. Proc. 77 (14): 4. ♀ ♂.

nodosa Fox. Utah, Idaho, Wash., Oreg., Calif.
Didineis nodosa Fox, 1894. Ent. News 5: 127. ♂.
Didineis sanctacrucae Bradley, 1920. Amer. Ent. Soc. Trans. 46: 129. ♀. N. syn.

nodosa var. **clypeata** Malloch and Rohwer. Colo.
Didineis nodosa var. *clypeata* Malloch and Rohwer, 1930. U. S. Natl. Mus. Proc. 77 (14): 6. ♂.

peculiaris Fox. Iowa, Mont.
Didineis peculiaris Fox, 1894. Ent. News 5: 128. ♀ ♂.

stevensi Rohwer. N. Dak. (Sheldon).
Didineis stevensi Rohwer, 1923. Ent. Soc. Wash. Proc. 25: 98. ♀.

texana (Cresson). U. and L. Austr. Zones east of 100th meridian. Prey: *Cixius stigmatus* Say.
Alyson (!) *texanus* Cresson, 1872. Amer. Ent. Soc. Trans. 4: 226. ♂.
Biology: Strandtmann, 1945. Ent. Soc. Amer. Ann. 38: 312.

vierecki Rohwer. Kans. (Morton Co.).
Didineis crassicornis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 204. ♂. Preocc.
Didineis vierecki Rohwer, 1911. Ent. Soc. Wash. Proc. 13: 4. N. name.

Tribe NYSSONINI[55]

Revisions: Cresson, 1882. Amer. Ent. Soc. Trans. 9: 273–284.—Fox, 1896. N. Y. Ent. Soc. Jour. 4: 10–16.—Pate, 1938. Amer. Ent. Soc. Trans. 64: 121–127 (key to gen.).
Catalog: Maidl and Klima, 1939. Hym. Cat., Pars 8, Sphecidae 1, pp. 115–150.

Genus NYSSON Latreille

Revision: Pate, 1938. Amer. Ent. Soc. Trans. 64: 129 (key to subg.).

Species of this genus are known to be inquilinous in the nests of other sphecoid wasps and bees.

Subgenus NYSSON Latreille

Nysson, Nysso Latreille, 1796. Precis Caract. Gen. Ins., p. 125. No species included.
Nysson Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 340.
Type: *Crabro spinosus* Fabricius. Desig. by Shuckard, 1837.
Nyssonus Rafinesque, 1815. Analyse Nature ou Tabl. Univers, Palermo, p. 124. Emend.

aequalis Patton. Mass. south to Fla., La., Wis., Ill., Iowa, S. Dak.
Nysson aequalis Patton, 1879. Canad. Ent. 11: 212. ♂.

aurinotus Say. Ohio, Ind., Ill., Wis., Minn., Iowa, S. Dak., Nebr., Tex.
Nysson aurinotus Say, 1837. Boston Jour. Nat. Hist. 1: 368.
Nysson angularis H. S. Smith, 1908. Nebr. Univ., Studies 8: 340. ♂. N. syn.

chumash Pate. Calif.
Nysson (*Nysson*) *chumash* Pate, 1940. Notulae Nat. 63: 1. ♂.

compactus Cresson. Wash.
Nysson compactus Cresson, 1882. Amer. Ent. Soc. Trans. 9: 278. ♀ ♂.

coyotero Pate. Tex., N. Mex., Ariz., Calif.
Nysson (*Nysson*) *coyotero* Pate, 1940. Notulae Nat. 63: 3. ♀ ♂.

cressoni Cameron. N. Mex.
Nysson cressoni Cameron, 1904. Amer. Ent. Soc. Trans. 30: 95. ♀.

daeckei Viereck, N. Y., N. J., Iowa, Alta.
Nysson daeckei Viereck, 1904. Amer. Ent. Soc. Trans. 30: 238. ♂.

fidelis Cresson. Wis., Colo., Mont., Oreg. Inquiline in nest of *Gorytes* (*Gorytes*) *canaliculatus* Pack.
Nysson fidelis Cresson, 1882. Amer. Ent. Soc. Trans. 9: 282. ♀ ♂.
Biology: Barth, 1907. Wis. Nat. Hist. Soc. Bul. 5: 145, 147–148.

[55] By Karl V. Krombein, U. S. Bureau of Entomology and Plant Quarantine.

freyi-gessneri Handlirsch. Ga., Minn., Colo., Tex.
Nysson Freyi-Gessneri Handlirsch, 1887. Akad. Wiss. Wien, Math.-Nat. Kl. Sitzber. 95: 355. ♂.

intermedius Viereck. N. Mex., Ariz., Calif.
Nysson intermedius Viereck, 1907. Amer. Ent. Soc. Trans. 33: 409. ♀.

lateralis Packard. Chiefly Transit. Zone east of Rockies.
Nysson laterale Harris, 1835. *In* Hitchcock, Rpt. Geol. Mineral. Bot. Zool. Mass., p. 68. *Nom. nud.*
Nysson laterale Packard, 1867. Ent. Soc. Phila. Proc. 6: 440. ♂.

marlatti Rohwer. Tex. (Neuecest).
Nysson (Nysson) marlatti Rohwer, 1921. U. S. Natl. Mus. Proc. 59: 408. ♀.

melanopus Pate. Que. (Hull).
Nysson nigripes Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 269. ♂. Preocc.
Nysson (Nysson) melanopus Pate, 1938. Amer. Ent. Soc. Trans. 64: 130. N. name.

plagiatus Cresson. U. S., east of Rockies.
Nysson plagiatus Cresson, 1882. Amer. Ent. Soc. Trans. 9: 276. ♀ ♂.

punctatus (Ashmead). Colo. (Ft. Collins).
Plenoculus punctatus Ashmead, 1897. Psyche 8: 338. ♀.
Taxonomy: Krombein, 1938. Ent. Soc. Amer. Ann. 31: 469.

5-spinosus Say. Ark.
Nysson 5-spinosus Say, 1823. West. Quart. Rptr. 2: 78.

recticornis Bradley. Idaho, Calif.
Nysson (Nysson) recticornis Bradley, 1920. Amer. Ent. Soc. Trans. 46: 127. ♂.

rufiventris Cresson. Colo., Mont.
Nysson rufiventris Cresson, 1882. Amer. Ent. Soc. Trans. 9: 283. ♀.

rusticus Cresson. Colo., Idaho, Wash., Calif.
Nysson rusticus Cresson, 1882. Amer. Ent. Soc. Trans. 9: 282. ♀ ♂.

simplicicornis Fox. Va., Mich., Iowa, Nebr., Mo.
Nysson simplicicornis Fox, 1896. N. Y. Ent. Soc. Jour. 4: 15. ♂.
Brachystegus maculipes Mickel, 1916. Amer. Ent. Soc. Trans. 42: 400. ♀. N. syn.
Nysson (Nysson) minimus Rohwer, 1921. U. S. Natl. Mus. Proc. 59: 408. ♀. Preocc. N. syn.
Nysson (Nysson) kaskaskia Pate, 1938. Amer. Ent. Soc. Trans. 64: 130. N. name. N. syn.

sphecodoides Bradley. Calif. (Claremont).
Nysson (Nysson) sphecodoides Bradley, 1920. Amer. Ent. Soc. Trans. 46: 126. ♂.

subtilis Fox. Pa., Ill.
Nysson subtilis Fox, 1896. N. Y. Ent. Soc. Jour. 4: 14. ♂.

tristis Cresson. Wash., Oreg., Calif.
Nysson tristis Cresson, 1882. Amer. Ent. Soc. Trans. 9: 281. ♂.

Subgenus EPINYSSON Pate

Nysson subg. *Epinysson* Pate, 1935. Ent. News 46: 250.
Type: *Nysson basilaris* Cresson. Orig. desig.
Taxonomy: Bradley, 1920. Amer. Ent. Soc. Trans. 46: 122–123 (key to spp.).

albomarginatus Cresson. Nev.
Nysson albomarginatus Cresson, 1882. Amer. Ent. Soc. Trans. 9: 278. ♀ ♂.

barberi Rohwer. Calif. (Humboldt Co.).
Nysson (Brachystegus) barberi Rohwer, 1921. U. S. Natl. Mus. Proc. 59: 410. ♂.

basilaris Cresson. Ga.
Nysson basilaris Cresson, 1882. Amer. Ent. Soc. Trans. 9: 281. ♀.

bellus Cresson. N. Dak., Colo., Mont., Tex., N. Mex., Calif.
Nysson bellus Cresson, 1882. Amer. Ent. Soc. Trans. 9: 280. ♀.

clarconis Viereck. Kans. (Clark Co.).
Nysson clarconis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 204. ♂.

foxii Rohwer. Tex. (Granjeno).
Nysson (Brachystegus) foxii Rohwer, 1921. U. S. Natl. Mus. Proc. 59: 409. ♂.

gagates Bradley. B. C. (Selkirk Mts.).
Nysson (Brachystegus) gagates Bradley, 1920. Amer. Ent. Soc. Trans. 46: 123. ♂.

hoplisivora Rohwer. Md., Iowa. Inquiline in nest of *Psammaecius costalis* (Cresson).
Nysson (Brachystegus) hoplisivora Rohwer, 1923. Ent. Soc. Wash. Proc. 25: 96. ♀.
Biology: Reinhard, 1925. Wash. Acad. Sci. Jour. 15: 172–177.—Reinhard, 1929. The Witchery of Wasps, pp. 262–271, text fig.

maiae Pate. Calif. (Perris).
Nysson (Epinysson) maiae Pate, 1938. Amer. Ent. Soc. Trans. 64: 137, fig. 26. ♂.

mellipes Cresson. N. H. to Fla., La., Minn., Iowa, N. Dak., Colo., Mont., Calif.
Nysson mellipes Cresson, 1882. Amer. Ent. Soc. Trans. 9: 279. ♀ ♂.

metathoracicus (H. S. Smith). Nebr. (Sioux Co.).
Brachystegus metathoracicus H. S. Smith, 1908. Nebr. Univ. Studies 8: 338. ♀.

moestus Cresson. Wash., Calif.
Nysson moestus Cresson, 1882. Amer. Ent. Soc. Trans. 9: 280. ♂.

opulentus Gerstaecker. Canada and U. S. in U. Austr. Zone.
Nysson opulentus Gerstaecker, 1866. Naturhist. Gesell. Halle Abhandl. 10: 114. ♂.

opulentus var. **dakotensis** Rohwer. N. Dak. (New England).
Nysson (Brachystegus) opulentus var. *dakotensis* Rohwer, 1921. U. S. Natl. Mus. Proc. 59: 411. ♂.

pacificus Rohwer. Calif. (Santa Barbara).
Nysson (Brachystegus) pacificus Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 249. ♂.

pumilus Cresson. Nev., Calif.
Nysson pumilus Cresson, 1882. Amer. Ent. Soc. Trans. 9: 283. ♂.
Nysson (Brachystegus) pumilis (!) Bradley, 1920. Amer. Ent. Soc. Trans. 46: 125. ♀.

seminole Bradley. Ga., Fla., Okla.
Nysson (Brachystegus) seminole Bradley, 1920. Amer. Ent. Soc. Trans. 46: 125. ♂.

submellipes Viereck. N. J. (Riverton).
Nysson submellipes Viereck, 1904. Amer. Ent. Soc. Trans. 30: 237. ♂.

tramosericus Viereck. Conn., N. J., Pa.
Nysson tramosericus Viereck, 1904. Amer. Ent. Soc. Trans. 30: 237. ♂.

trichrus (Mickel). Va., Iowa, Nebr., Kans., Tex.
Brachystegus trichrus Mickel, 1916. Amer. Ent. Soc. Trans. 42: 400. ♀.

tuberculatus Handlirsch. S. C., Wis.
Nysson tuberculatus Handlirsch, 1887. Akad. Wiss. Wien, Math.-Nat. Kl. Sitzber. 95: 363. ♂.

Subgenus HYPONYSSON Cresson

Hyponysson Cresson, 1882. Amer. Ent. Soc. Trans. 9: 273.
Type: *Hyponysson bicolor* Cresson. Monob.
Revision: Pate, 1938. Amer. Ent. Soc. Trans. 64: 131–135, fig. 23.

bicolor (Cresson). Idaho, Wash., Oreg., Calif.
Hyponysson bicolor Cresson, 1882. Amer. Ent. Soc. Trans. 9: 284. ♀.

raui Rohwer. Tenn., Mo., Ark., Okla., Tex. Entered burrow of *Calliopsis* (*Verbenapis*) *nebrascensis* Cwfd.
Nysson (*Hyponysson*) *raui* Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 176. ♀.

Biology: Rau, 1922. Acad. Sci. St. Louis, Proc. 24: 18.

Genus FOXIA Ashmead

Foxia Ashmead, 1898. Ent. News 9: 187.
Type: *Foxia pacifica* Ashmead. Monob.
Revision: Pate, 1938. Amer. Ent. Soc. Trans. 64: 143–153, figs. 1, 6, 7, 13–16, 21, 22.

navajo Pate. Okla., Tex., N. Mex., Ariz., Calif.
Foxia navajo Pate, 1938. Amer. Ent. Soc. Trans. 64: 146. ♀ ♂.

pacifica Ashmead. Calif.
Foxia pacifica Ashmead, 1898. Ent. News 9: 187. ♀ ♂.

secunda (Rohwer). Ariz., Calif.
Nysson (*Foxia*) *secunda* Rohwer, 1921. U. S. Natl. Mus. Proc. 59: 407. ♂.

Genus ZANYSSON Rohwer

Nysson subg. *Zanysson* Rohwer, 1921. U. S. Natl. Mus. Proc. 59: 404.
Type: *Nysson texanus* Cresson. Orig. desig.
Revision: Rohwer, 1921. U. S. Natl. Mus. Proc. 59: 404–407.

aureobalteatus (Cameron), n. comb. N. Mex.
Nysson aureobalteatus Cameron, 1901. Amer. Ent. Soc. Trans. 27: 313. ♂.

fuscipes (Cresson), n. comb. Mo., Kans., Okla., Tex., Ariz., Calif., Oreg., Wash., Idaho.
Paranysson fuscipes Cresson, 1882. Amer. Ent. Soc. Trans. 9: 274. ♀ ♂.

plesius (Rohwer). N. Y., Va., N. C., La., Miss., Mo.
Nysson (*Zanysson*) *plesia* Rohwer, 1921. U. S. Natl. Mus. Proc. 59: 406. ♀ ♂.
Zanysson matinecoc Pate, 1938. Amer. Ent. Soc. Trans. 64: 163. ♀ ♂. N. syn.

texanus (Cresson). N. J. to Ga., Ill., Mo., Kans., Nebr., Mont., Idaho, Tex., N. Mex., Ariz.
Nysson texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 223. ♀ ♂.

tonto Pate. Ariz. (Roosevelt Reservoir).
Zanysson tonto Pate, 1940. Notulae Nat. 63: 6. ♂.

Genus METANYSSON Ashmead

Revision: Pate, 1938. Amer. Ent. Soc. Trans. 64: 170–188, figs. 2, 3, 5, 9–12, 18–20.

Subgenus METANYSSON Ashmead

Metanysson Ashmead, 1899. Canad. Ent. 31: 326.
Type: *Nysson solani* Cockerell. Monob. and orig. desig.

coahuila Pate. Calif. (Palm Springs).
Metanysson (*Metanysson*) *coahuila* Pate, 1938. Amer. Ent. Soc. Trans. 64: 183. ♀.

lipan Pate. Tex. (Hudspeth Co.).
Metanysson (*Metanysson*) *lipan* Pate, 1938. Amer. Ent. Soc. Trans. 64: 176. ♂.

solani (Cockerell). N. Mex., Ariz.
Nysson solani Cockerell, 1895. Amer. Ent. Soc. Trans. 22: 294. ♀.

yavapai Pate. Ariz.
Metanysson (*Metanysson*) *yavapai* Pate, 1938. Amer. Ent. Soc. Trans. 64: 178. ♀ ♂.

Subgenus HUACHUCA Pate

Metanysson subg. ***Huachuca*** Pate, 1938. Amer. Ent. Soc. Trans. 64: 185.
Type: ***Metanysson (Huachuca) arivaipa*** Pate. Monob. and orig. desig.

arivaipa Pate. Ariz.
Metanysson (Huachuca) arivaipa Pate, 1938. Amer. Ent. Soc. Trans. 64: 186. ♂.

Tribe GORYTINI[56]

Revisions: Handlirsch, 1888. Akad. Wiss. Wien, Math.-Nat. Kl. Sitzber. 97: 316–565, 3 pls. (spp. of world).—Fox, 1895. Acad. Nat. Sci. Phila. Proc., pp. 517–539.—Rohwer, 1921. U. S. Natl. Mus. Proc. 59: 412 (key to gen.).
Catalog: Maidl and Klima, 1939. Hym. Cat., Pars 8, Sphecidae 1, pp. 43–114.

Genus ARGOGORYTES Ashmead

Subgenus ARGOGORYTES Ashmead

Argogorytes Ashmead, 1899. Canad. Ent. 31: 324.
Type: ***Gorytes carbonarius*** Smith. Orig. desig. and monob.

The typical subgenus does not occur in North America.

Subgenus ARCHARPACTUS Pate

Arpactus Jurine, 1801. Intell. Blatt. Litt.-Ztg. Erlangen, v. 1, p. 164. Name suppressed by Internatl. Comn. Zool. Nomencl. Op. 135, 1939.
Argogorytes subg. ***Archarpactus*** Pate, 1937. Amer. Ent. Soc. Mem. 9: 4, 10.
Type: ***Sphex mystacea*** Linnaeus. Orig. desig.

nigrifrons (Smith), n. comb. N. S., south to Ga., Iowa, Kans., Tex.
Gorytes nigrifrons Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 368. ♀.
Gorytes Bollii Cresson, 1872. Amer. Ent. Soc. Trans. 4: 225. ♀.
Gorytes (Gorytes) neglectus Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 567. ♀.

Genus OCHLEROPTERA Holmberg

Ochleroptera Holmberg, 1903. Buenos Aires Mus. Nac. Hist. Nat. An. (3) 2: 487.
Type: ***Ochleroptera oblita*** Holmberg. Monob.
Paramellinus Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 469.
Type: ***Gorytes bipunctatus*** Say. Orig. desig.
Taxonomy: Pate, 1947. Brooklyn Ent. Soc. Bul. 42: 65–70.

bipunctata (Say). U. and L. Austr. Zones of U. S., south to Yucatan. Nests in soil, occasionally in flowerpots in homes. Prey: *Philaenus lineatus* (L.); *Cyrtolobus acutus* Van D.
Gorytes bipunctatus Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 338.

Genus AMMATOMUS Costa

Subgenus AMMATOMUS Costa

Ammatomus Costa, 1859. Faun. Regn. Napoli, Imen. Acul., Nyssonid., p. 36.
Type: ***Gorytes coarctatus*** Spinola. Monob.

The typical subgenus does not occur in North America.

Subgenus TANYOPRYMNUS Cameron

Tanyoprymnus Cameron, 1905. Amer. Ent. Soc. Trans. 31: 375.
Type: (***Tanyoprymnus longitarsis*** Cameron)=[***Gorytes***] ***moneduloides*** (Packard). Monob.

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[56] By Karl V. Krombein, U. S. Bureau of Entomology and Plant Quarantine.

Ceratostizus Rohwer, 1921. U. S. Natl. Mus. Proc. 59: 412.
Type: ***Gorytes moneduloides*** Packard. Orig. desig.
Taxonomy: Pate, 1935. Ent. News 46: 249–250.

moneduloides (Packard). S. C., Ga., Fla., La., Miss., Tex., Calif., south to Mexico.
Gorytes moneduloides Packard, 1867. Ent. Soc. Phila. Proc. 6: 431. ♂.
Gorytes Belfragei Cresson, 1872. Amer. Ent. Soc. Trans. 4: 224. ♀.
Tanyoprymnus longitarsis Cameron, 1905. Amer. Ent. Soc. Trans. 31: 376. ♂.

Genus SPHECIUS Dahlbom

Taxonomy: Pate, 1936. Brooklyn Ent. Soc. Bul. 31: 198–200 (key to subg.).

Members of this group are known commonly as "cicada killers."

Subgenus SPHECIUS Dahlbom

Sphecius Dahlbom, 1845. Hym. Europaea, v. 1, p. 154.
Type: ***Sphex speciosus*** Drury. Monob.
Hogardia Lepeletier, 1845. Hist. Nat. Ins. Hym., v. 3, p. 288.
Type: (***Hogardia rufescens*** Lepeletier)=[***Stizus***] ***hogardii*** Latreille. Type by virtual tautonymy.
Revision: Fox, 1895. Acad. Nat. Sci. Phila. Proc., pp. 264–266.

convallis Patton. Kans., Tex., Calif., Baja Calif. Prey: *Tibicen pruinosa* (Say).
Sphecius speciosus var. ***convallis*** Patton, 1879. U. S. Geol. and Geog. Survey Bul. 5: 343. ♀ ♂.
Sphecius raptor Handlirsch, 1889. Akad. Wiss. Wien, Math.-Nat. Kl. Sitzber. 98: 461. ♀ ♂. N. name.

grandis (Say). Tenn., Mo., Ark., Tex., Kans., N. Mex., Ariz., Utah, Nev., Wash., Calif.
Stizus grandis Say, 1823. West. Quart. Rptr. 2: 77. *Nom. nud.*
Stizus grandis Say, 1824. Amer. Ent. 1: 3. ♀ ♂.
Stizus fervidus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 223. ♀.
Stizus nevadensis Cresson, 1874. Amer. Ent. Soc. Trans. 5: 99. ♂.

hogardii (Latreille). Fla. (Long Key and Key West); West Indies.
Stizus Hogardii Latreille, 1809. Gen. Crust. Ins., v. 4, p. 100, pl. 13. ♀.
Hogardia rufescens Lepeletier, 1845. Hist. Nat. Ins. Hym., v. 3, p. 289. ♀. N. name.

speciosus (Drury). U. S. in U. and L. Austr. Zones east of Rockies, south into Mexico. Prey: Many species of *Tibicen*.
Sphex speciosus Drury, 1773. Illus. Nat. Hist., v. 2, p. 71. ♀.
Vespa tricincta Fabricius, 1775. Systema Ent., p. 363.
Stizus vespiformis Latreille, 1818. Tabl. Encycl. et Meth., pt. 24, pl. 382, fig. 6.
Biology (selected refs. only): Reinhard, 1929. The Witchery of Wasps, pp. 18–60, figs.—Dow, 1942. Ent. Soc. Amer. Ann. 35: 310–317.—Dambach and Good, 1943. Ohio Jour. Sci. 43: 32–41, figs. 1–6.

Genus HAPALOMELLINUS Ashmead

Hapalomellinus Ashmead, 1899. Canad. Ent. 31: 300.
Type: (***Gorytes eximius*** Provancher)=[***Gorytes*** (***Arpactus***)] ***albitomentosus*** (Bradley). Monob. and orig. desig.

albitomentosus (Bradley). Tex., N. Mex., Ariz., Calif.
Gorytes eximius Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 274. ♀. Preocc.
Gorytes (Arpactus) albitomentosus Bradley, 1920. Amer. Ent. Soc. Trans. 46: 121. ♀ ♂.

teren Pate. Ariz. (Pima Co.).
Hapalomellinus teren Pate, 1946. Ent. News 57: 237. ♀.

Genus TRICHOGORYTES Rohwer

Trichogorytes Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 469.
Type: ***Trichogorytes argenteopilosus*** Rohwer. Monob. and orig. desig.
Revision: Pate, 1946. Brooklyn Ent. Soc. Bul. 41: 15–17.

argenteopilosus Rohwer. Ariz. (Castle Creek Hot Springs).
Trichogorytes argenteopilosus Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 470. ♀.

cockerelli (Ashmead). N. Mex. (Mesilla).
Harpactus cockerelli Ashmead, 1899. Ent. News 10: 10. ♀.

Genus DIENOPLUS Fox

Dienoplus Fox, 1893. Acad. Nat. Sci. Phila. Proc., p. 548.
Type: ***Dienoplus pictifrons*** Fox. Monob. and orig. desig.

mendicus (Handlirsch). B. C., Idaho.
Gorytes mendicus Handlirsch, 1893. K. K. Naturhist. Hofmus. Ann. 8: 278. ♀.

pictifrons Fox. Idaho, Wash., Calif.
Dienoplus pictifrons Fox, 1893. Acad. Nat. Sci. Phila. Proc., p. 549. ♀ ♂
Harpactus howardi Ashmead, 1899. Ent. News 10: 9. ♀. N. syn.

Genus ARIGORYTES Rohwer

Arigorytes Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 469.
Type: ***Gorytes Coquillettii*** Fox. Monob. and orig. desig.
Revision: Pate, 1947. Canad. Ent. 79: 51–56.

anaëtis Pate. Ariz. (Nogales).
Arigorytes anaëtis Pate, 1947. Canad. Ent. 79: 55. ♀.

clavatus (Baker). Nev. (Ormsby Co.).
Hoplisoides clavatus Baker, 1907. Invertebrata Pacifica 1: 165. ♂.

coquillettii (Fox). Calif.
Gorytes Coquillettii Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 531. ♀.

insolitus (Fox). Nev., Calif.
Gorytes insolitus Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 532. ♂.

smohalla Pate. Idaho, Wash.
Arigorytes smohalla Pate, 1947. Canad. Ent. 79: 54. ♀ ♂.

Genus LESTIPHORUS Lepeletier

Lestiphorus Lepeletier, 1832. Soc. Ent. France Ann. 1: 70.
Type: ***Crabro bicinctus*** Rossi. Monob.
Hypomellinus Ashmead, 1899. Canad. Ent. 31: 299.
Type: (***Gorytes rufocinctus*** Fox)=[***Gorytes***] ***piceus*** (Handlirsch). Monob. and orig. desig.
Mellinogastra Ashmead, 1899. Canad. Ent. 31: 300.
Type: ***Gorytes mellinoides*** Fox. Monob. and orig. desig.
Revision: Pate, 1946 (1945). Canad. Ent. 77: 210–213.

cockerelli (Rohwer). Mass., N. Y., Mich., S. Dak., Colo.
Gorytes cockerelli Rohwer, 1909. Ent. News 20: 371. ♂.
Mellinogastra williamsi Mickel, 1916. Amer. Ent. Soc. Trans. 42: 402. ♂.

mellinoides (Fox). Tex. (?Bosque Co.).
Gorytes mellinoides Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 524. ♀.

piceus (Handlirsch). N. Dak., Wash., B. C.
Gorytes piceus Handlirsch, 1888. Akad. Wiss. Wien, Math.-Nat. Kl. Sitzber. 97: 455. ♂.
Gorytes rufocinctus Fox, 1892. Canad. Ent. 24: 153. ♀.

Genus HARPACTOSTIGMA Ashmead

Revision: Pate, 1938. Amer. Ent. Soc. Trans. 64: 57–77.

Subgenus HARPACTOSTIGMA Ashmead

Harpactostigma Ashmead, 1899. Canad. Ent. 31: 299.
Type: ***Hoplisus velutinus*** Spinola. Monob. and orig. desig.

The typical subgenus does not occur in North America.

Subgenus ARCESILAS Pate

Harpactostigma subg. ***Arcesilas*** Pate, 1938. Amer. Ent. Soc. Trans. 64: 60.
Type: ***Gorytes mirandus*** Fox. Orig. desig.

arapaho Pate. Colo.
Harpactostigma (Arcesilas) arapaho Pate, 1938. Amer. Ent. Soc. Trans. 64: 67. ♀.

femoratum (Bradley). Calif.
Gorytes (Hoplisoides) femoratus Bradley, 1920. Amer. Ent. Soc. Trans. 46: 119. ♂.

flavicorne (Baker). Calif. (Claremont).
Hypomellinus flavicornis Baker, 1907. Invertebrata Pacifica 1: 162. ♂.

gracile (Patton). U. S. in U. and L. Austr. Zones, east of 100th meridian.
Hoplisus gracilis Patton, 1879. Canad. Ent. 11: 210. ♀ ♂.

laminiferum (Fox). Wash.
Gorytes laminiferus Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 532. ♂.

mirandum (Fox). Nev.
Gorytes mirandus Fox, 1892. Canad. Ent. 24: 152. ♂.
Hoplisoides mirandas (!) Ashmead, 1899. Canad. Ent. 31: 328.

rutilum Pate. Tex. (El Paso).
Harpactostigma (Arcesilas) rutilum Pate, 1938. Amer. Ent. Soc. Trans. 64: 69. ♂.

Genus PSAMMALETES Pate

Hoplisoides subg. ***Psammaletes*** Pate, 1936. Amer. Ent. Soc. Trans. 62: 49.
Type: ***Gorytes bigeloviae*** Cockerell and Fox. Orig. desig.
Revision: Pate, 1936. Amer. Ent. Soc. Trans. 62: 49–56.

bigeloviae (Cockerell and Fox). N. Mex., Ariz.
Gorytes bigeloviae Cockerell and Fox, 1897. Acad. Nat. Sci. Phila. Proc., p. 139. ♂.

crucis (Cockerell and Fox). Iowa, Nebr., N. Mex.
Gorytes crucis Cockerell and Fox, 1897. Acad. Nat. Sci. Phila. Proc., p. 140. ♀.
Hypomellinus venustus Mickel, 1916. Amer. Ent. Soc. Trans. 42: 403. ♂.
Hypomellinus tricinctus Mickel, 1916. Amer. Ent. Soc. Trans. 42: 404. ♀.

pechumani Pate. N. Y., N. J., Md., Va., N. C., Ga., La. Prey: *Ormenoides venusta* (Melichar).
Psammaletes pechumani Pate, 1936. Amer. Ent. Soc. Trans. 62: 53. ♀.
Biology: Pate, 1946. Brooklyn Ent. Soc. Bul. 41: 99.

Genus PSAMMAECIUS Lepeletier

Psammaecius Lepeletier, 1832. Soc. Ent. France Ann. 1: 72.
Type: ***Gorytes punctulatus*** Van der Linden. Monob.
Hoplisoides Gribodo, 1884. Ent. Soc. Ital. Bol. 16: 276. N. syn.
Type: ***Hoplisoides intricans*** Gribodo. Monob.

Species of this genus nest in the soil and provision their nests with adult or nymphal Membracidae.

adornatus (Bradley), n. comb. N. Mex., Calif.
Gorytes (Hoplisoides) adornata Bradley, 1920. Amer. Ent. Soc. Trans. 46: 115. ♀.

arizonensis (Baker), n. comb. Ariz. (Prescott).
Hoplisoides arizonensis Baker, 1907. Invertebrata Pacifica 1: 164. ♀.

armatus (Provancher), n. comb. Ont. (Ottawa).
Gorytes armatus Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 272. "♀"=♂.

barbatulus (Handlirsch), n. comb. D. C., Ga., Miss., Ill., Nebr., Tex.
Gorytes barbatulus Handlirsch, 1888. Akad. Wiss. Wien, Math.-Nat. Kl. Sitzber. 97: 408. ♂.

birkmanni (Baker), n. comb. Tex. (Fedor).
Hoplisoides Birkmanni Baker, 1907. Invertebrata Pacifica 1: 166. ♀.

confertus (Fox), n. comb. Nebr., Kans., Tex., Ariz., Calif., Mont.
Gorytes confertus Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 525. ♀ ♂.
Taxonomy: Bradley, 1920. Amer. Ent. Soc. Trans. 46: 118 (in key).

costalis (Cresson), n. comb. Md., Fla., Ala., Miss., Tex., Mo., Ill. Prey: *Archasia galeata* (F.); *Ceresa borealis* Fairm.; *Thelia* sp. Nests in soil.
Gorytes costalis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 225. ♀.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 19.—Reinhard, 1925. Wash. Acad. Sci. Jour. 15: 172–177.—Reinhard, 1929. The Witchery of Wasps, pp. 235–260, 3 figs.

dentatus (Fox). n. comb. Ariz., Calif.
Gorytes dentatus Fox, 1893. Canad. Ent. 25: 116. ♂.

denticulatus (Packard), n. comb. N. J. to Fla., Ala., La., Nebr., Kans., Colo., Tex., Ariz., south into Mexico.
Gorytes denticulatus Packard, 1867. Ent. Soc. Phila. Proc. 6: 430. ♀.

diversus (Fox), n. comb. Calif. (Los Angeles Co.).
Gorytes diversus Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 527. ♀ ♂.

gulielmi (Viereck), n. comb. Ariz. (Bill Williams Fork).
Gorytes gulielmi Viereck, 1907. Amer. Ent. Soc. Trans. 33: 408. ♀.

hamatus (Handlirsch), n. comb. U. Sonor. Zone.
Gorytes hamatus Handlirsch, 1888. Akad. Wiss. Wien, Math.-Nat. Kl. Sitzber. 97: 403. ♂.
Gorytes maculatus Provancher, 1895. Nat. Canad. 22: 140. ♀.

imperialensis (Bradley), n. comb. Calif. (Imperial Co.).
Gorytes (Hoplisoides) imperialensis Bradley, 1920. Amer. Ent. Soc. Trans. 46: 117. ♂.

microcephalus (Handlirsch), n. comb. N. Y., N. J., Ga., Nebr., Colo.
Gorytes microcephalus Handlirsch, 1888. Akad. Wiss. Wien, Math.-Nat. Kl. 97: 405. ♂.

nebulosus (Packard), n. comb. U. S. in U. and L. Austr. Zones, east of Rockies. Prey: Nymphs of *Microcentrus* sp. and *Palonica* sp.
Gorytes nebulosus Packard, 1867. Ent. Soc. Phila. Proc. 6: 424. ♀.
Taxonomy: Bradley, 1920. Amer. Ent. Soc. Trans. 46: 117 (in key).
Biology: Pate, 1946. Brooklyn Ent. Soc. Bul. 41: 99.

pergandei (Handlirsch), n. comb. N. Y., Md., Va., W. Va., Ill.
Gorytes Pergandei Handlirsch, 1888. Akad. Wiss. Wien, Math.-Nat. Kl. Sitzber. 97: 407. ♂.

placidus (Smith), n. comb. Fla. (St. Johns Bluff).
Gorytes placidus Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 368. ♀ ♂.
Gorytes rufipes Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 369. ♀.
Taxonomy: Handlirsch, 1888. Akad. Wiss. Wien, Math.-Nat. Kl. Sitzber. 97: 530.

pogonodes (Bradley), n. comb. Nev., Calif.
Gorytes (Hoplisoides) pogonodes Bradley, 1920. Amer. Ent. Soc. Trans. 46: 114. ♂.

pruinosus (Baker), n. comb. Tex. (Fedor).

Hoplisoides pruinosus Baker, 1907. Invertebrata Pacifica 1: 166. ♀.

pygidialis (Fox). U. and L. Sonoran Zones, south into Mexico.
Gorytes pygidialis Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 528. ♀ ♂.
Taxonomy: Bradley, 1920. Amer. Ent. Soc. Trans. 46: 119 (in key).

?rufulicornis (Maidl and Klima), n. comb. Calif.
Gorytes ruficornis Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 273. ♀ ♂. Preocc.
Gorytes (Hoplisus) rufulicornis Maidl and Klima, 1939. Hym. Cat., Pars 8, Sphecidae, v. 1, p. 102. N. name.

spilographus (Handlirsch), n. comb. "N. A."
Gorytes spilographus Handlirsch, 1895. Akad. Wiss. Wien, Math.-Nat. Kl. Sitzber. 104: 895. ♀.

spilopterus (Handlirsch). U. and L. Sonor. Zones. Prey: *Stictocephala wickhami* Van D.
Gorytes spilopterus Handlirsch, 1888. Akad. Wiss. Wien, Math.-Nat. Kl. Sitzber. 97: 414. ♀.
Taxonomy: Bradley, 1920. Amer. Ent. Soc. Trans. 46: 117 (in key).
Biology: Pate, 1946. Brooklyn Ent. Soc. Bul. 41: 99.

splendidulus (Bradley), n. comb. Ariz., Calif.
Gorytes (Hoplisoides) splendidula Bradley, 1920. Amer. Ent. Soc. Trans. 46: 113. ♀ ♂.

tricolor (Cresson), n. comb. U. and L. Sonor. Zones.
Gorytes tricolor Cresson, 1868. Amer. Ent. Soc. Trans. 1: 380. "♀"=♂.
Gorytes (Hoplisus) helianthi Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 569. ♀. N. syn.
Taxonomy: Bradley, 1920. Amer. Ent. Soc. Trans. 46: 119.

umbonatus (Baker), n. comb. Calif. (Claremont).
Hoplisoides umbonatus Baker, 1907. Invertebrata Pacifica 1: 163. ♂.

Genus GORYTES Latreille

Subgenus GORYTES Latreille

Gorytes Latreille, 1804. Nouv. Dict. Hist. Nat., v. 24, Tabl. Meth., p. 180.
Type: ***Mellinus quinquecinctus*** Fabricius. Monob.
Arpactus Panzer, 1805. Faune Ins. German., heft 98, No. 17.
Type: ***Mellinus quadrifasciatus*** Fabricius. Monob.
Euzonia Kirby MS, 1829. *In* Stephens, System. Cat. Brit. Ins., p. 363.
Type: ***Mellinus quinquecinctus*** Fabricius. Desig. by Pate, 1937.
Hoplisus Lepeletier, 1832. Soc. Ent. France Ann. 1: 61.
Type: ***Mellinus quinquecinctus*** Fabricius. Desig. by Westwood, 1840.
Euspongus Lepeletier, 1832. Soc. Ent. France Ann. 1: 66.
Type: ***Euspongus laticinctus*** Lepeletier. Desig. by Westwood, 1840.

albosignatus Fox. N. Dak., Nebr., Colo., Mont.
Gorytes albosignatus Fox, 1892. Canad. Ent. 24: 152. ♀ ♂.

angustus (Provancher). Nev., Calif., Wash., B. C.
Gorytes laticinctus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 274. ♂. Preocc.
Hoplisus angustus Provancher, 1895. Nat. Canad. 22: 141. ♀.
Gorytes Provancheri Handlirsch, 1895. Akad. Wiss. Wien, Math.-Nat. Kl. Sitzber. 104: 945. N. name.
Hoplisus angustatus (!) Ashmead, 1899. Canad. Ent. 31: 328.

asperatus Fox. Transcont. in Transit. Zone.
Gorytes asperatus Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 534. ♀ ♂.

atricornis Packard. Transcont. in Transit. and U. Austr. Zones.
Odynerus (?) ***atricornis*** Harris, 1835. *In* Hitchcock, Rpt. Geol. Mineral. Bot. Zool. Mass., p. 68. *Nom. nud.*
Gorytes atricornis Packard, 1867. Ent. Soc. Phila. Proc. 6: 428. ♀ ♂.
Gorytes rugosus Packard, 1867. Ent. Soc. Phila. Proc. 6: 427. N. syn.

atrifrons Fox. Nev.
Gorytes atrifrons Fox, 1892. Canad. Ent. 24: 151. ♀ ♂.

canaliculatus Packard. Canada, Wis. Nests in soil. Prey: *Cyrtolobus fenestratus* (Fitch); *Atymna inornata* (Say).
Gorytes canaliculatus Packard, 1867. Ent. Soc. Phila. Proc. 6: 428. ♀.
Biology: Barth, 1907. Wis. Nat. Hist. Soc. Bul. 5: 141–149, 3 figs.

corrugis (Mickel). Nebr. (Mitchell).
Hoplisus corrugis Mickel, 1918 (1917). Nebr. Univ., Studies 17: 319. ♂.
Gorytes (Hoplisus) carrugis (!) Maidl and Klima, 1939. Hym. Cat., Pars 8, Sphecidae, v. 1, p. 101.

decorus Fox. Mont.
Gorytes decorus Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 535. ♀ ♂.

dorothyae Krombein. Md., N. C.
Gorytes (Gorytes) dorothyae Krombein, 1950 (1949). Elisha Mitchell Sci. Soc. Jour. 65: 269. ♂.

elegantulus (H. S. Smith). Nebr., Alta.
Hoplisus elegantulus H. S. Smith, 1908. Nebr. Univ., Studies 8: 346. ♂.

geminus Handlirsch. Va.
Gorytes geminus Handlirsch, 1888. Akad. Wiss. Wien, Math.-Nat. Kl. Sitzber. 97: 478. ♀ ♂.

gyponacinus Rohwer. Maine, N. H., Pa., D. C., Ont., Wis., Iowa, N. Dak. Prey: *Gyponana flavilineata* (Fitch).
Gorytes (Pseudoplisus) gyponacinus Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 568. ♀ ♂.

nevadensis Fox. Nev.
Gorytes nevadensis Fox, 1892. Canad. Ent. 24: 150. ♀ ♂.

rufocaudatus (Mickel). Nebr. (Mitchell).
Hoplisus rufocaudatus Mickel, 1916. Amer. Ent. Soc. Trans. 42: 401. ♂.

simillimus Smith. N. S., N. B., Maine, south to Ga., Ont., Mich., Ill., Nebr., B. C. Nests in soil. Prey: *Gyponana* sp.
Gorytes simillimus Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 367. ♀.
Gorytes ephippiatus Packard, 1867. Ent. Soc. Phila. Proc. 6: 426. ♂.
Biology: Krombein, 1936. Ent. News 47: 93–94.

vicinus Handlirsch. "Wash. Ter."
Gorytes vicinus Handlirsch, 1893. K. K. Naturhist. Hofmus. Ann. 8: 279. ♀.

Subgenus PSEUDOPLISUS Ashmead

Pseudoplisus Ashmead, 1899. Canad. Ent. 31: 323.
Type: *Gorytes floridanus* Fox. Monob. and orig. desig.

abdominalis Cresson. Colo.
Gorytes abdominalis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 474. ♀ ♂.

bipartitus Handlirsch. Va., Ga., La., Tex., Nebr.
Gorytes bipartitus Handlirsch, 1888. Akad. Wiss. Wien Math.-Nat. Kl. Sitzber. 97: 521. ♀ ♂.
Pseudoplisus varipunctus H. S. Smith, 1908. Nebr. Univ., Studies 8: 348. ♀. N. syn.

divisus Smith. Ga.
Gorytes divisus Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 370. ♂.

fasciatus Fox. Colo.
Gorytes fasciatus Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 539. ♂.

floridanus Fox. Fla., Okla.
Hoplisus foveolata Fox, 1890. Ent. News 1: 106. ♀. Preocc.
Gorytes floridanus Fox, 1891. Ent. News 2: 196. N. name.

papagorum Viereck. Ariz. (Coconino Co.).
Gorytes papagorum Viereck, 1907. Amer. Ent. Soc. Trans. 33: 400. ♀ ♂.

phaleratus Say. Canada and U. S. in Transit. and Austr. Zones, south into Mexico.
Odynerus (?) *flavicornis* Harris, 1835. *In* Hitchcock, Rpt. Geol. Mineral. Bot. Zool. Mass., p. 68. *Nom. nud.*
Gorytes phaleratus Say, 1837. Boston Jour. Nat. Hist. 1: 367.
Gorytes fulvipennis Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 367. ♀.
Gorytes apicalis Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 369. ♂.
Gorytes modestus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 473. ♂.
Gorytes rufo-luteus Packard, 1867. Ent. Soc. Phila. Proc. 6: 425. ♀ ♂.
Gorytes flavicornis Packard, 1867. Ent. Soc. Phila. Proc. 6: 429. ♀ ♂.

propinquus Cresson. N. J., S. C., Tex., N. Mex., Nebr.
Gorytes propinquus Cresson, 1868. Amer. Ent. Soc. Trans. 1: 379. "♀"=♂.

rufomaculatus Fox. "Dak.," Nebr., Colo., Mont.
Gorytes rufomaculatus Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 538. ♀ ♂.

sapellonis Baker. N. Mex. (Sapello Canyon).
Gorytes sapellonis Baker, 1907. Invertebrata Pacifica 1: 161. ♀.

smithii Cresson. Ill., Kans., Nebr.
Gorytes Smithii Cresson, 1880. Amer. Ent. Soc. Trans. 8: Proc. p. xviii. "♀" =♂.
Pseudoplisus infumatus Mickel, 1916. Amer. Ent. Soc. Trans. 42: 402. ♂. N. syn.

subaustralis Viereck. Ariz. (Coconino Co.).
Gorytes subaustralis Viereck, 1907. Amer. Ent. Soc. Trans. 33: 398. ♀.

venustiformis Rohwer. Colo. (Boulder).
Gorytes (*Pseudoplisus*) *venustiformis* Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 568. ♂.

venustus Cresson. Colo., Utah, Tex., N. Mex., south into Mexico.
Gorytes venustus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 472. ♀ ♂.

Gorytini of Uncertain Generic Position

gyponae Williams. Kans. (Grant Co.). Nests in soil. Prey: *Prairiana cinerea* (Uhl.).
Harpactus gyponae Williams, 1914 (1913). Kans. Univ. Sci. Bul. 8: 223. ♀.
Biology: Williams, 1914 (1913). Kans. Univ. Sci. Bul. 8: 225–226, pl. 33, fig. 5.

Tribe STIZINI[57]

Revisions: Handlirsch, 1892. Akad. Wiss. Wien, Math.-Nat. Kl. Sitzber. 101: 25–181, 3 pls. (spp. of world).—Fox, 1895. Acad. Nat. Sci. Phila. Proc., pp. 266–268 (No. Amer. spp.).—Parker, 1929. U. S. Natl. Mus. Proc. 75 (5): 7–11, figs. 1–6 (No. Amer. genera).

Genus STIZUS Latreille

Stizus Latreille, 1810. Hist. Nat. Crust. Ins., v. 3, p. 344.
Type: *Larra ruficornis* Fabricius. Orig. desig.
Megastizus Patton, 1879. U. S. Geol. Geog. Survey Bul. 5: 344.
Type: *Stizus brevipennis* Walsh. Orig. desig.
Stizolarra Saussure, 1887. Soc. Ent. 2: 9.
Type: *Sphex vespiformis* Fabricius. Desig. by Pate, 1937.
Megalostizus Schulz, 1906. Spolia Hym., p. 199. Emend.
Revision: Dow, 1941. Psyche 48: 171–181, 7 figs.

brevipennis Walsh. Md., Fla., Wis. to S. Dak., south to Tex. Prey: *Conocephalus* sp.
Stizus brevipennis Walsh, 1869. Amer. Ent. 1: 162. ♂.
Larra Brendeli Taschenberg, 1875. Ztschr. Gesam. Naturw. Halle 45: 361. ♂.
Biology: Williams, 1914. Kans. Univ. Sci. Bul. 8: 198.

iridis Dow. Utah (Rainbow Bridge Natl. Mon.).
Stizus iridis Dow, 1941. Psyche 48: 171. ♂.

[57] By Karl V. Krombein, U. S. Bureau of Entomology and Plant Quarantine.

occidentalis Parker. S. Calif.
Stizus occidentalis Parker, 1929. U. S. Natl. Mus. Proc. 75 (5): 9. ♀ ♂.

texanus Cresson. Tex., Ariz.
Stizus texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 222. ♀ ♂.

Genus STIZOÏDES Guérin

Stizus subg. *Stizoides* Guérin, 1844. Iconogr. Regn. Anim. 7, Ins., p. 438.
Type: *Larra fasciata* Fabricius. Desig. by Parker, 1929.
Stizus subg. *Tachystizus* Minkiewicz, 1934. Polski Pismo Ent. 12: 251.
Type: *Crabro tridentatus* Fabricius. Desig. by Pate, 1937.

unicinctus (Say). ?D. C., Mich. to Ark. and Tex., west to Wash. and Calif. A cuckoo wasp, laying its egg on prey of *Chlorion* (*Priononyx*) *atratum* (Lep.).
Stizus unicinctus Say, 1823. West. Quart. Rptr. 2: 77. *Nom. nud.*
Stizus unicinctus Say, 1824. Amer. Ent. 1: 4. ♂.
Biology: Williams, 1914. Kans. Univ. Sci. Bul. 8: 230.—Rau and Rau, 1918. Wasp Studies Afield, pp. 180–193.

Genus BEMBECINUS Costa

Bembecinus Costa, 1859. Fauna Regn. Napoli, Imen. Acul., Nyssonid., p. 4.
Type: *Bembecinus meridionalis* Costa. Monob.
Stizomorphus Costa, 1859. Fauna Regn. Napoli, Imen. Acul., Nyssonid., p. 7.
Type: *Vespa tridens* Fabricius. Monob.
Stizus subg. *Gorystizus* Minkiewicz, 1934. Polski Pismo Ent. 12: 252.
Type: *Vespa tridens* Fabricius. Desig. by Pate, 1937.
Revision: Krombein and Willink, 1950. Amer. Midland Nat. 44: 699–713.

The species nest in sandy soil in compact colonies, frequently made up of many individuals.

bishoppi Krombein and Willink. Tex.
Bembecinus bishoppi Krombein and Willink, 1950. Amer. Midland Nat. 44: 710. ♀ ♂.

godmani godmani (Cameron). Nebr., Colo. and south. Calif., south to Panama. Prey: *Cuerna lateralis* (F.); *Draeculacephala noveboracensis* (Fitch); *Ciminius hartii* (Ball); *Stirellus bicolor* (Van D.); *Exitianus* sp.
Stizus godmani Cameron, 1890. Biol. Cent.-Amer., Hym. 2, pl. 5, fig. 8. ♀ ♂.
?*Stizus lineatus* Cameron, 1890. Biol. Cent.-Amer., Hym. 2, p. 102. ♂.
Stizus flavus Cameron, 1890. Biol. Cent.-Amer., Hym. 2, p. 103. ♂.
Stizus flavus var. *subalpinus* Cockerell, 1898. Davenport Acad. Nat. Sci. Proc. 7: 142. ♂.
Biology: Rohwer, 1909. Colo. Univ. Studies 6: 246–247.—Rodeck, 1931. Colo.-Wyo. Acad. Sci. Jour. 1: 61.—Strandtmann, 1945. Ent. Soc. Amer. Ann. 38: 312–313.

moneduloides (Smith). Fla. (St. Johns Bluff).
Larra moneduloides Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 346. ♀ (♂ misdet.).

nanus floridanus Krombein and Willink. S. Fla.
Bembecinus nanus floridanus Krombein and Willink, 1950. Amer. Midland Nat. 44: 706. ♂.

nanus nanus (Handlirsch). N. J. to north. Fla., west to Tex., Iowa, east. Nebr. Prey: *Graphocephala versuta* (Say); unidentified Fulgoridae.
Stizus nanus Handlirsch, 1892. Akad. Wiss. Wien, Math.-Nat. Kl., Sitzber. 101: 61. ♀ ♂.
Biology: Shappirio, 1946. Ent. News 57: 229–230.

nanus strenuus (Mickel). Nebr., S. Dak., Wyo., Tex.
Stizus strenuus Mickel, 1918 (1917). Nebr. Univ., Studies 17: 331. ♀ ♂.

neglectus (Cresson). Miss., La., Nebr., Tex.
Monedula neglecta Cresson, 1872. Amer. Ent. Soc. Trans. 4: 222. ♀.
Stizus xanthochrous Handlirsch, 1892. Akad. Wiss. Wien, Math.-Nat. Kl. Sitzber. 101: 69. ♂.

wheeleri Krombein and Willink. Ariz.
Bembecinus wheeleri Krombein and Willink, 1950. Amer. Midland Nat. 44: 709. ♀ ♂.

Tribe BEMBICINI[58]

These wasps construct nests in the soil, usually in colonies. Many of the species stock their nests with flies. Most species practice progressive provisioning of their nests.

Revisions: Parker, 1917. U. S. Natl. Mus. Proc. 52: 1–155.—Parker, 1929. U. S. Natl. Mus. Proc. 75 (5): 11–181.

Genus STENIOLIA Say

Steniolia Say, 1837. Boston Jour. Nat. Hist. 1: 367.
Type: ***Bembex longirostris*** Say. Monob.

albicantia Parker. B. C., Wash., Calif., Idaho.
Steniolia albicantia Parker, 1917. U. S. Natl. Mus. Proc. 52: 12. ♂.

duplicata Provancher. Rocky Mtn. and Pacific Coast States.
Steniolia duplicata Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 414. ♂ ♀.
Steniolia scolopacea Handlirsch, 1889. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 98: 510. ♂ ♀.
Steniolia edwardsii Patton, 1894. Ent. Soc. Wash. Proc. 3: 45.
Steniolia meridionalis C. L. Fox, 1923. Calif. Acad. Sci. Proc. 12: 430. ♂.

nigripes Parker. Calif.
Steniolia nigripes Parker, 1917. U. S. Natl. Mus. Proc. 52: 8. ♂.

obliqua (Cresson). Rocky Mtn. and Pacific Coast States, B. C.
Monedula obliqua Cresson, 1865. Ent. Soc. Phila. Proc. 4: 469. ♀.

sulfurea Fox. Calif.
Steniolia sulfurea Fox, 1901. N. Y. Ent. Soc. Jour. 9: 84. ♂.

tibialis Handlirsch. Calif., Nev.
Steniolia tibialis Handlirsch, 1889. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 98: 513. ♂ ♀.

Genus STICTIELLA Parker

Stictiella Parker, 1917. U. S. Natl. Mus. Proc. 52: 21.
Type: ***Monedula formosa*** Cresson. Orig. desig.

So far as is known, wasps of this genus stock their nests with flies and practice progressive provisioning.

argentata C. L. Fox. Calif.
Stictiella argentata C. L. Fox, 1923. Calif. Acad. Sci. Proc. 12: 434. ♂ ♀.

bituberculata Parker. Ariz., Calif., N. Mex.
Stictiella bituberculata Parker, 1917. U. S. Natl. Mus. Proc. 52: 36. ♂ ♀.

callista Parker. Ariz., N. Mex.
Stictiella callista Parker, 1917. U. S. Natl. Mus. Proc. 52: 34. ♂ ♀.

corniculata Mickel. Wyo.
Stictiella corniculata Mickel, 1918 (1917). Nebr. Univ. Studies 17: 332. ♂.

divergens Parker. Kans.
Stictiella divergens Parker, 1917. U. S. Natl. Mus. Proc. 52: 55. ♂.

emarginata (Cresson). Generally distributed throughout the U. S. and south. Canada.
Monedula emarginata Cresson, 1865. Ent. Soc. Phila. Proc. 4: 468. ♂ ♀.
Monedula mamillata Handlirsch, 1890. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 99: 146. ♂ ♀.

[58] By B. D. Burks, U. S. Bureau of Entomology and Plant Quarantine.

exigua (Fox). Ariz., Mont.
Monedula exigua Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 370. ♀.

femorata (Fox). Fla., Tex.
Monedula femorata Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 368. ♂.

formosa (Cresson). Kans., Okla., Tex.
Monedula formosa Cresson, 1872. Amer. Ent. Soc. Trans. 4: 221. ♂ ♀.

megacera Parker. Colo., Utah, Wash.
Stictiella megacera Parker, 1917. U. S. Natl. Mus. Proc. 52: 49. ♂ ♀.

melanosterna Parker. Ariz., N. Mex., Utah, Tex.
Stictiella melanosterna Parker, 1917. U. S. Natl. Mus. Proc. 52: 30. ♂ ♀.

pictifrons (Smith). Generally distributed from Pa. and Ga. west to Colo., Tex., and Calif.
Monedula pictifrons Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 335. ♀.
Monedula inermis Handlirsch, 1890. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 99: 144. ♂.
Monedula denverensis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 235. ♀.

plana (Fox). Great Plains States.
Monedula plana Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 367. ♂.

pulchella (Cresson). Calif., Colo., Tex.
Monedula pulchella Cresson, 1865. Ent. Soc. Phila. Proc. 4: 471. ♂ ♀.
Monedula minutula Handlirsch, 1890. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 99: 148. ♀.

pulla (Handlirsch). Calif., Wash. Prey: *Helophilus latifrons* O. S., *Sarcophaga tuberosa* Pand.
Monedula pulla Handlirsch, 1890. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 99: 149. ♀.
Monedula usitata Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 371. ♂ (♀ misdet.)
Biology: LaRivers, 1942. Pan-Pacific Ent. 18: 4–8.

scitula (Fox). Ariz., Calif., N. Mex.
Monedula scitula Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 369. ♀.
Monedula villosa Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 370. ♂.

serrata (Handlirsch). Fla., Ga., N. C.
Monedula serrata Handlirsch, 1890. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 99: 143. ♂.

speciosa (Cresson). Alta., Ariz., Sask., Colo., N. Mex., Nebr., Kans.
Monedula speciosa Cresson, 1865. Ent. Soc. Phila. Proc. 4: 470. ♀.

spinifera (Mickel). Alta., Kans., Nebr.
Stictia spinifera Mickel, 1916. Amer. Ent. Soc. Trans. 42: 418. ♂.
Stictiella melampous Parker, 1917. U. S. Natl. Mus. Proc. 52: 43. ♂.

tenuicornis (Fox). Ariz., Calif., Tex.
Monedula tenuicornis Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 368. ♀ ♂.

terlinguae C. L. Fox. Tex.
Stictiella terlinguae C. L. Fox, 1928. Pan-Pacific Ent. 4: 103. ♂ ♀.

tuberculata (Fox). Idaho, Nev., Wash.
Monedula tuberculata Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 366. ♂.

Genus BICYRTES Lepeletier

Bicyrtes Lepeletier, 1845. Hist. Nat. Ins., Hym., v. 3, p. 53.
Type: *Bicyrtes Servillii* Lepeletier. Monob.
Bembidula Burmeister, 1874. Acad. Nac. Cien. Córdoba Bol. 1: 122.
Type: *Monedula discisa* Taschenberg. Desig. by Parker, 1917.
Taxonomy: Lohrmann, 1939. Arch. f. Naturgesch. (n. s.) 8: 131–137.

So far as is known these wasps provision their nests with Hemiptera, usually taking the immature forms.

annulata Parker. Calif., Ariz., N. Mex., Tex.
Bicyrtes annulata Parker, 1917. U. S. Natl. Mus. Proc. 52: 67. ♂ ♀.

burmeisteri (Handlirsch). Tex.
Bembidula Burmeisteri Handlirsch, 1889. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 98: 500. ♀.

capnoptera (Handlirsch). Fla., Ga., Kans., La., Tex.
Bembidula capnoptera Handlirsch, 1889. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 98: 497. ♂ ♀.

fodiens (Handlirsch). Southeast., Miss. Valley, and Great Plains States.
Bembidula fodiens Handlirsch, 1889. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 98: 499. ♂ ♀.

gracilis Parker. Ariz.
Bicyrtes gracilis Parker, 1917. U. S. Natl. Mus. Proc. 52: 68. ♂.

insidiatrix (Handlirsch). Mass., N. J., Fla., Ky., Tex., N. Mex.
Bembidula insidiatrix Handlirsch, 1889. Akad. der Wiss. Wien, Math.-Na
Kl. Sitzber. 98: 494. ♂ ♀.

mesillensis (Cockerell). Ariz., N. Mex., Tex.
Bembidula capnoptera var. *mesillensis* Cockerell, 1898. Davenport Aca
Nat. Sci. Proc. 7: 142. ♂.

parata (Provancher). Rocky Mtn. and Pacific Coast States. Prey: Immature Hemiptera.
Monedula parata Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 416. ♀.
Bembidula meliloti Rohwer, 1908. Ent. News 19: 376. ♂.
Biology: Hartman, 1905. Tex. Univ. Bul. 65: 36–39.

quadrifasciata (Say). East. States west to Wis., Kans., Tex., N. Mex. Prey: Immature Pentatomidae, Coreidae, and Reduviidae; *Acrosternum hilare* (Say); *Brochymena quadripustulata* (F.); *Euschistus* sp.; *Archimerus calcarator* (F.); *Leptoglossus phyllopus* (L.); *Chariestrus antennator* (F.); *Acanthocephala femorata* (F.); *Zelus* sp.; *Apiomerus* sp.
Monedula quadrifasciata Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, app., p. 336. ♂ ♀.
Monedula sallei Guérin, 1845. Iconogr. Règne Anim., v. 7, p. 437.
Biology: Rau, 1918. Wasp Studies Afield, pp. 41–43.—Smith, 1923. Ent. Soc. Amer. Ann. 16: 238-246.

ventralis (Say). Generally distributed over the U. S. and south. Canada. Prey: Immature Hemiptera, principally Pentatomidae.
Monedula ventralis Say, 1824. *In* Keating, Narr. Long's 2nd. Exped. v. 2, app., p. 337. ♂.
Bicyrtes Servillii Lepeletier, 1845. Hist. Nat. Ins., Hym., v. 3, p. 53. ♀.
Biology: Parker, 1917. U. S. Natl. Mus. Proc. 52: 132–133.

viduata (Handlirsch). Utah, Ariz., Tex.
Bembidula viduata Handlirsch, 1889. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 98: 491. ♀.

Genus MICROBEMBEX Patton

Microbembex Patton, 1879. U. S. Geol. and Geog. Survey Bul. 5: 364.
Type: *Bembex monodonta* Say. Orig. desig.

One species of this genus is known to stock its nest with a great variety of insects, immature and adult, and both living and dead.

aurata Parker. Ariz., Calif., Colo., Tex.
Microbembex aurata Parker, 1917. U. S. Natl. Mus. Proc. 52: 121. ♂ ♀.

hirsuta Parker. Calif., Ariz., N. Mex., Tex.
Microbembex hirsuta Parker, 1917. U. S. Natl. Mus. Proc. 52: 122. ♂ ♀.

monodonta (Say). Generally distributed throughout the U. S. and south. Canad
Prey: Nearly any available immature or adult insects, living or dea
Even parts of dead insects will be used to stock the nests.

Bembex monodonta Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, app., p. 335. ♂.
Bembex ciliata Lepeletier, 1845. Hist. Nat. Ins., Hym., v. 3, p. 279. ♂.
Bembex argentifrons Cresson, 1865. Ent. Soc. Phila. Proc. 4: 141. ♂ ♀.
Bembex nigrifrons Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 415. ♂ ♀.
Microbembex monodonta occidentalis Johnson and Rohwer, 1908. Ent. News 19: 375.
Microbembex monodonta neomexicana Johnson and Rohwer, 1908. Ent. News 19: 375.
Microbembex monodonta deltaensis Johnson and Rohwer, 1908. Ent. News 19: 375. ♂.
Microbembex tarsalis Rohwer, 1914. U. S. Natl. Mus. Proc. 47: 516. ♂ ♀.
Biology: Hartman, 1905. Tex. Univ. Bul. 65: 21–26.—Parker, 1917. U. S. Natl. Mus. Proc. 52: 134–141.—Rau, 1918. Wasp Studies Afield, pp. 39–41.

Genus BEMBIX Fabricius

Bembix Fabricius, 1775. Systema Ent., Char. Gen., p. [11]; text [***Bembyx*** (!)], p. 361.
Type: ***Vespa signata*** Linnaeus. Monob.
Bembex Fabricius, 1777. Gen. Ins., p. 122. Emend.
Monedula Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 343. Preocc.
Type: ***Vespa signata*** Linnaeus. Desig. by Latreille, 1810.
Stictia Illiger, 1807. *In* Rossi, Fauna Etrusca, Ed. 2, v. 2, p. 131. N. name for *Monedula* Latreille.

Wasps of this genus stock their nests with flies and practice progressive provisioning.

carolina (Fabricius), n. comb. N. J. and Pa. south to Fla., west to Ill., Kans., and N. Mex. Prey: Principally horse flies, *Chrysops* spp. and *Tabanus* spp.; occasionally also *Odontomyia cincta* Oliv., *Psorophora ciliata* (F.), *Orthellia cornicina* (F.), and *Callitroga* sp.
Bembex carolina Fabricius, 1793. Ent. System., v. 2, p. 249.
Biology: Hine, 1906. La. State Crop Pest Comn. Cir. 6: 20–27.—Hine, 1907. La. Agr. Expt. Sta. Bul. 93: 13–15.

signata (Linnaeus). Fla., Calif., So. and Cent. Amer., West Indies. Prey: *Chrysops* sp. and numerous other fairly large flies.
Vespa signata Linnaeus, 1758. Syst. Nat., Ed. 10, v. 1, p. 574.

Genus EPIBEMBEX Minkiewicz

Bembex and ***Bembix*** of authors, not of the genotype.
Epibembex Minkiewicz, 1934 (1933). Polski Pismo Ent. 12: 254.
Type: ***Apis rostrata*** Linnaeus. Desig. by Pate, 1937.
Apobembex Minkiewicz, 1934 (1933). Polski Pismo Ent. 12: 254.
Type: ***Bembex oculata*** Latreille. Desig. by Pate, 1937.
Biology: Nielsen, 1933. Ent. Meddel. 18 (3): 296–299.—Nielsen, 1945. Zool. Mus. Hauniensis, Copenhagen, Spolia 7: 1–174.
Taxonomy: Lohrmann, 1948 (1944). München. Ent. Gesell. Mitt. 34: 420–432.

Most of the wasps in this genus provision their nests with flies, but a few prey on immature Hemiptera.

amoena (Handlirsch), n. comb. Wash., Calif., Idaho, Wyo., N. Dak.
Bembex amoena Handlirsch, 1893. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 102: 769. ♂ ♀.

arcuata (Parker), n. comb. Kans., Tex., N. Mex.
Bembix arcuata Parker, 1917. U. S. Natl. Mus. Proc. 52: 81. ♂ ♀.

belfragei (Cresson), n. comb. Ga., Kans., La., Tex., Wis.
Bembex Belfragei Cresson, 1873. Amer. Ent. Soc. Trans. 4: 220. ♂.
Bembex cressonis Handlirsch, 1893. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 102: 792. ♂ ♀.
Bembex insignis Handlirsch, 1893. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 102: 793. ♂ ♀.

cameroni (Rohwer), n. comb. Ariz., N. Mex.
Bembyx cameroni Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 467. ♂.

cinerea (Handlirsch), n. comb. N. J., Md., Ga., Fla., Tex.
Bembex cinerea Handlirsch, 1893. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 102: 837. ♂ ♀.

comata (Parker), n. comb. B. C., Wash., Oreg., Calif., Alta., Nev., N. Mex. Prey: A wide variety of cyclorrhaphous Diptera.
Bembix comata Parker, 1917. U. S. Natl. Mus. Proc. 52: 100. ♂ ♀.
Biology: Parker, 1925. Ent. Soc. Wash. Proc. 27: 189–195.

comata var. **nevadensis** (Rodeck), n. comb. Nev.
Bembix comata var. *nevadensis* Rodeck, 1934. Amer. Mus. Novitates 692: 1. ♂.

connexa (Fox), n. comb. Wash., Calif., Nev., Utah, Ariz.
Bembex connexus Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 360. ♂ ♀.

festiva (Parker), n. comb. Ariz.
Bembix festiva Parker, 1929. U. S. Natl. Mus. Proc. 75 (5): 118. ♂.

hamata hamata (C. L. Fox), n. comb. Calif.
Bembix hamata C. L. Fox, 1923. Psyche 30: 6. ♂.

hamata lucida (C. L. Fox), n. comb. Calif.
Bembix hamata lucida C. L. Fox, 1923. Psyche 30: 7. ♂.

helianthopolis (Parker), n. comb. Kans., Tex., Ariz.
Bembix helianthopolis Parker, 1917. U. S. Natl. Mus. Proc. 52: 113. ♂ ♀.

hinei (Parker), n. comb. La., Tex. Prey: A great variety of larger flies, with horse flies predominating.
Bembix hinei Parker, 1917. U. S. Natl. Mus. Proc. 52: 86. ♂ ♀.
Biology: Hine, 1906. La. State Crop Pest Comn. Cir. 6: 27.

latifrons (Parker), n. comb. N. Mex.
Bembix latifrons Parker, 1917. U. S. Natl. Mus. Proc. 52: 116. ♀.

melanaspis (Parker), n. comb. Ariz., Calif.
Bembix melanaspis Parker, 1917. U. S. Natl. Mus. Proc. 52: 109. ♂ ♀.

multipicta (Smith), n. comb. Ariz.; Mexico, Brazil.
Bembex multipicta Smith, 1873. Ann. Mag. Nat. Hist. (4) 12: 300. ♀.

nicolai (Cockerell), n. comb. Calif.
Bembex nicolai Cockerell, 1938. Pan-Pacific Ent. 14: 150. ♂ ♀.

nubilipennis (Cresson), n. comb. Miss. Valley, Great Plains, and Southwest. States. Prey: A great variety of flies, small ones being brought in while the developing larva is small and larger ones when the larva is more mature.
Bembex nubilipennis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 218. ♂ ♀.
Biology: Parker, 1910. Ohio Nat. 10: 163–165.—Rau, 1918. Wasp Studies Afield, pp. 9–37.

occidentalis beutenmülleri (Fox), n. comb. Calif. Prey: A wide variety of cyclorrhaphous Diptera.
Bembex beutenmülleri Fox, 1901. N. Y. Ent. Soc. Jour. 9: 83. ♂.
Bembex obsoleta Howard, 1901. Insect Book, pl. 4, fig. 36.
Biology: Bohart and MacSwain, 1939. South. Calif. Acad. Sci. Bul. 38: 84–98.

occidentalis occidentalis (Fox), n. comb. Ariz., Calif., N. Mex., Oreg., Utah.
Bembex occidentalis Fox, 1893. Calif. Acad. Sci. Proc. (2) 4: 10. ♂ ♀.

primaaestate (Johnson and Rohwer), n. comb. Alta., Ariz., B. C., Calif., Colo., Idaho, La., Nev., N. Mex., Tex., Wash.
Bembex primaaestate Johnson and Rohwer, 1908. Ent. News 19: 378. ♀.

pruinosa (Fox), n. comb. Generally distributed over the U. S. and south. Canada.
Bembex pruinosa Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 361. ♂ ♀.

rugosa (Parker), n. comb. Ariz.
Bembix rugosa Parker, 1917. U. S. Natl. Mus. Proc. 52: 95. ♀.

sanctae-rosae (Cockerell), n. comb. Calif.
Bembix sanctae-rosae Cockerell, 1940. South. Calif. Acad. Sci. Bul. 38: 135.

sayi (Cresson), n. comb. Gulf Coast, Miss. Valley, and Great Plains States west to Colo.
Bembex sayi Cresson, 1865. Ent. Soc. Phila. Proc. 4: 467. ♀.

similans (Fox), n. comb. S. C., Ga., Fla., Kans., N. Mex., Ariz.
Bembex similans Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 358. ♂ ♀.

spinolae (Lepeletier), n. comb. East. States west to S. Dak., Colo., Ariz., and Tex.; south. Canada. Prey: A great variety of larger flies.
Bembex spinolae Lepeletier, 1845. Hist. Nat. Ins. Hym., v. 3, p. 277. ♂.
Bembex fasciata Dahlbom, 1845. Hym. Europaea, v. 1, pp. 184, 487. ♀.
Biology: Peckham and Peckham, 1898. Wis. Geol. and Nat. Hist. Survey Bul. 2: 58–76.—Barber, 1915. Ent. Soc. Wash. Proc. 17: 187–188.—Parker, 1917. U. S. Natl. Mus. Proc. 52: 127–131.
Taxonomy: Dow, 1930. Brooklyn Ent. Soc. Bul. 25: 98–99.

stenebdoma (Parker), n. comb. Ariz.
Bembix stenebdoma Parker, 1917. U. S. Natl. Mus. Proc. 52: 94. ♂.

texana (Cresson), n. comb. Ark., Fla., Ga., La., N. Mex., Tex. Prey: Immature Hemiptera, including *Euthochtha galeator* (F.).
Bembex texana Cresson, 1872. Amer. Ent. Soc. Trans. 4: 219. ♀.

troglodytes (Handlirsch), n. comb. Ariz., N. Mex., Tex.
Bembex troglodytes Handlirsch, 1893. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 102: 829. ♂ ♀.

u-scripta (Fox), n. comb. Ariz., Calif., N. Mex.
Bembex U-scripta Fox, 1895. Acad. Nat. Sci. Phila. Proc., p. 362. ♂ ♀.

variegata (Olivier), n. comb. Tex.; So. and Cent. Amer., West Indies.
Bembex variegata Olivier, 1789. Encycl. Meth., Ins., v. 4, p. 292.

Unplaced Species of Epibembex

foxi (Parker), n. comb. ?Ill.
Bembix foxi Parker. U. S. Natl. Mus. Proc. 52: 96. ♂ ♀.

Subfamily PHILANTHINAE

Tribe PHILANTHINI[59]

These solitary wasps construct tunnel nests in the soil and stock them with bees or winged ants. The adults are nectarivorous and are, consequently, often to be taken on flowers.

Genus PHILANTHUS Fabricius

Philanthus Fabricius, 1790. Skrivt. Natur. Hist. Selsk., v. 1, p. 224.
Type: *Philanthus coronatus* Fabricius. Desig. by Shuckard, 1837.
Symblephilus Panzer, 1806. Krit. Rev. Insektenf. Deutschlands, v. 2, p. 171.
Type: *Philanthus pictus* Panzer. Desig. by Pate, 1937.
Simblephilus Jurine, 1807. Nouv. Méthod. Class. Hym. Dipt., p. 185.
Type: *Vespa triangulum* Fabricius. Desig. by Morice and Durrant, 1914.
Cheilopogonus Westwood, 1834. Zool. Jour. 5: 441.
Type: *Cheilopogonus punctiger* Westwood. Monobasic.
Anthophilus Dahlbom, 1845. Hym. Europaea, v. 1, p. 190.
Type: *Philanthus politus* Say. Desig. by Ashmead, 1899.
Chilopogon Kohl, 1896. K. K. Naturhist. Hofmus. Ann. 11: 329. Emend. of *Cheilopogonus* Westwood.
Epiphilanthus Ashmead, 1899. Canad. Ent. 31: 294.
Type: *Philanthus solivagus* Say. Orig. desig.
Pseudanthophilus Ashmead, 1899. Canad. Ent. 31: 294.
Type: *Philanthus ventilabris* Fabricius. Orig. desig.
Ocloclectes Banks, 1913. Amer. Mus. Nat. Hist. Bul. 32: 423.
Type: *Philanthus sanbornii* Cresson. Orig. desig.

[59] By B. D. Burks, U. S. Bureau of Entomology and Plant Quarantine.

Ococlетes Mickel, 1916. Amer. Ent. Soc. Trans. 42: 407. Emend.
Revision: Strandtmann, 1946. A Rev. of the No. Amer. Spp. of Philanthus, 126 pp., 8 pls.

The species of this genus provision their nests with bees.

albifrons Cresson. Ariz., Colo., N. Mex.
Philanthus albifrons Cresson, 1865. Ent. Soc. Phila. Proc. 5: 101. ♂ ♀.
Philanthus henricus Dunning, 1898. Canad. Ent. 30: 153. ♀.

albopilosus Cresson. Rocky Mtn. States east to Tex., Ohio, and Ont.
Philanthus albopilosus Cresson, 1865. Ent. Soc. Phila. Proc. 5: 91. ♂.
Philanthus simillimus Cresson, 1865. Ent. Soc. Phila. Proc. 5: 95. ♀.

anna Dunning. Rocky Mtn. States, Alta., B. C.
Philanthus anna Dunning, 1897. Ent. News 8: 68. ♂.
Philanthus cleomae Dunning, 1898. Canad. Ent. 30: 152. ♀.
Philanthus subversus Banks, 1915. Canad. Ent. 47: 405. ♀.
Philanthus yakima Banks, 1919. Canad. Ent. 51: 85. ♀.

basilaris Cresson. N. Dak., Nebr., Wyo., Colo., Utah.
Philanthus basilaris Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxxiii. ♂ ♀.

bicinctus (Mickel). Colo.
Ococlетes bicinctus Mickel, 1916. Amer. Ent. Soc. Trans. 42: 407. ♀.

bilunatus Cresson. East. U. S. west to N. Dak., Colo., and N. Mex.; east. Canad. provinces west to Alta.
Philanthus bilunatus Cresson, 1865. Ent. Soc. Phila. Proc. 5: 97. ♂.
Philanthus scelestus Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxxiii. ♀.
Philanthus assimilis Banks, 1915. Canad. Ent. 47: 404. ♂. Preocc.
Philanthus consimilis Banks, 1923. Canad. Ent. 55: 21. Preocc.

crotoniphilus Viereck and Cockerell. Calif., N. Mex., Tex.
Philanthus crotoniphilus Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 145. ♂.

eurynome Fox. Fla.
Philanthus eurynome Fox, 1890. Ent. News 1: 107. ♀.

flavifrons Cresson. Rocky Mtn. and Pacific Coast States, N. Dak., Alta., B. C.
Philanthus flavifrons Cresson, 1865. Ent. Soc. Phila. Proc. 5: 102. ♀.
Philanthus sublimis Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxxii. ♂.
Philanthus californicus Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxxii. ♂.

gibbosus (Fabricius). Generally distributed throughout the U. S. and south. Canada. Prey: Principally halictid bees: various species of *Augochlora*, *Halictus*, *Chloralictus*, *Evylaeus*, *Curtisapis*, *Oxyglossa*, *Seladonia*, and *Dialonia*; also *Calliopsis andreniformis* Smith.
Vespa gibbosus Fabricius, 1775. Systema Ent., p. 370.
Philanthus punctatus Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, app. p. 342. ♂.
Cheilopogonus punctiger Westwood, 1835. Zool. Jour. 5: 441. ♂ ♀.
Anthophilus gibbosus Dahlbom, 1845. Hym. Europaea, v. 1, pp. 192, 497. ♂ ♀.
?***Anthophilus nodosus*** Klug, 1846. Akad. der Wiss. Berlin, Ber. Verh., p. 42.
Philanthus punctatus var. ***cockerelli*** Dunning, 1897. Ent. News 8: 69. ♂.
Biology: Peckham and Peckham, 1898. Wis. Geol. and Nat. Hist. Survey Bul. 2: 117–124.—Rau, 1918. Wasp Studies Afield, pp. 107–117.—Reinhard, 1924. Smithsn. Inst. Ann. Rpt. for 1922, pp. 363–376.—Reinhard, 1929. Witchery of Wasps, pp. 94–140.

gloriosus Cresson. Alta., Ariz., Kans., Nebr., N. Dak., N. Mex., Tex.
Philanthus gloriosus Cresson, 1865. Ent. Soc. Phila. Proc. 5: 86. ♀.
Philanthus insignatus Banks, 1913. Amer. Mus. Nat. Hist. Bul. 32: 421. ♀.

hirticulus (Mickel). Colo.
Ococlетes hirticulus Mickel, 1917. Nebr. Univ. Studies 17: 326. ♂.

inversus Patton. Great Plains, Iowa, and Kans., north to Alta. and N. Dak.
Philanthus inversus Patton, 1879. U. S. Geol. and Geog. Survey Bul. 5: 355 ♀.

lepidus Cresson. East. U. S. west to Tex. and Colo.
Philanthus lepidus Cresson, 1865. Ent. Soc. Phila. Proc. 5: 92. ♂.
Philanthus carolinensis Banks, 1913. Amer. Mus. Nat. Hist. Bul. 32: 422. ♀.
Philanthus carolinensis var. *reductus* Banks, 1921. Ent. Soc. Amer. Ann. 14: 18. ♂ ♀.

neomexicanus Strandtmann. Calif., Ariz., N. Mex.
Philanthus neomexicanus Strandtmann, 1946. A Rev. of the No. Amer. Spp. of Philanthus, p. 51.

nitens (Banks). B. C., Wash.
Ocloclетes nitens Banks, 1913. Amer. Mus. Nat. Hist. Bul. 32: 423. ♀.

occidentalis Strandtmann. Calif.
Philanthus occidentalis Strandtmann, 1946. A Rev. of the No. Amer. Spp. of Philanthus, p. 64.

politus barbiger Mickel. Colo., Nebr.
Philanthus barbiger Mickel, 1916. Amer. Ent. Soc.Trans. 42: 405. ♂ ♀.

politus pacificus Cresson. Rocky Mtn. and Pacific Coast States, B. C.
Philanthus pacificus Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxxii. ♂.
Philanthus arizonae Dunning, 1898. Canad. Ent. 30: 155. ♂.
Philanthus assimilis Banks, 1913. Amer. Mus. Nat. Hist. Bul. 32: 422. ♀.

politus politus Say. East. U. S. and southeast. Canada.
Philanthus politus Say, 1828. Amer. Ent., v. 3, p. 113.
Philanthus dubius Cresson, 1865. Ent. Soc. Phila. Proc. 5: 96. ♂.

politus psyche Dunning. Iowa to Tex., west to N. Mex., Utah, and Mont., Alta.
Philanthus psyche Dunning, 1896. Ent. News 7: 287. ♀.
Philanthus punctinudus Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 144. ♂.
Philanthus hermosus Banks, 1913. Amer. Mus. Nat. Hist. Bul. 32: 421. ♀.

politus pulcher Dalla Torre. Southwest. States, Calif., Alta.
Philanthus pulchellus Cresson, 1865. Ent. Soc. Phila. Proc. 5: 93. ♂. Preocc.
Philanthus pulcher Dalla Torre, 1897. Cat. Hym., v. 8, p. 489. N. name.
Philanthus clarconis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 206. ♀.

politus serrulatae Dunning. Southwest. States.
Philanthus serrulatae Dunning, 1898. Canad. Ent. 30: 154. ♀.

politus siouxensis Mickel. Great Plains and Rocky Mtn. States.
Philanthus siouxensis Mickel, 1916. Amer. Ent. Soc. Trans. 42: 406. ♀.

politus tarsatus H. S. Smith. Colo., Nebr., Tex.
Philanthus tarsatus H. S. Smith, 1908. Nebr. Univ. Studies 8: 356. ♀.

politus texanus Banks. Tex.
Philanthus texanus Banks, 1913. Amer. Mus. Nat. Hist. Bul. 32: 422. ♀ ♂.

sanbornii Cresson. Ont., New England States south to N. J. and west to Man. and N. Mex.
Philanthus sanbornii Cresson, 1865. Ent. Soc. Phila. Proc. 5: 89. ♂ ♀.
Philanthus scutellaris Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxxiv. ♂.
Philanthus trumani Dunning, 1897. Ent. News 8: 70. ♀.
Philanthus magdalenae Strandtmann, 1946. A Rev. of the No. Amer. Spp. of Philanthus, p. 39. ♀.

solivagus Say. Northeast. States south to Va. and west to Wis., southeast. Canada.
Philanthus solivagus Say, 1837. Boston Jour. Nat. Hist. 1: 383. ♂.
Philanthus solidagus Howard, 1901. Insect Book, pl. 3, fig. 31.

strandtmanni Burks, n. name. Pacific Coast States.
Ococlетes ventralis Mickel, 1917. Nebr. Univ. Studies 17: 328. ♀. Preocc. by Howard, 1901.

ventilabris Fabricius. Generally distributed throughout the U. S. and south. Canada. Prey: Bees of several genera and species.
Philanthus ventilabris Fabricius, 1798. Sup. Ent. System., p. 268.
Philanthus vertilabris Fabricius, 1805. Systema Piezatorum, p. 303.
Philanthus frontalis Cresson, 1865. Ent. Soc. Phila. Proc. 5: 99. ♂.
Philanthus ventralis Howard, 1901. Insect Book, pl. 3, fig. 33.
Philanthus vertilabris var. ***completus*** Banks, 1915. Canad. Ent. 47: 406. ♂.
Biology: Peckham and Peckham, 1905. Wasps, Social and Solitary, pp. 166–167.—Rau and Rau, 1918. Wasp Studies Afield, pp. 116–117.

zebratus Cresson Calif., Nev., Oreg., Wyo.
Philanthus zebratus Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxxiii. ♂.
Ococlates illustris Mickel, 1917. Nebr. Univ. Studies 17: 327. ♀.

Unplaced Species of Philanthus

barbatus F. Smith. No. Amer.
Philanthus barbatus F. Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 473. ♂.

crabroniformis F. Smith. Calif.
Philanthus crabroniformis F. Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 474. ♂.

harringtonii Provancher. Ont.
Philanthus Harringtonii Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 278.

Genus APHILANTHOPS Patton

Revision: Dunning, 1898. Amer. Ent. Soc. Trans. 25: 19–26.

The species of this genus provision their nests with winged ants.

Subgenus APHILANTHOPS Patton

Aphilanthops Patton, 1880. Boston Soc. Nat. Hist. Proc. 20: 401.
Type: ***Philanthus frigidus*** Smith. Orig. desig.

bakeri Dunning. Colo.
Aphilanthops bakeri Dunning, 1896. Canad. Ent. 28: 203. ♂.

elsiae Dunning. Calif.
Aphilanthops elsiae Dunning, 1898. Amer. Ent. Soc. Trans. 25: 23. ♀.

foxi Dunning. Calif.
Aphilanthops foxi Dunning, 1898. Amer. Ent. Soc. Trans. 25: 21. ♂.

frigidus (F. Smith). East. U. S. and Canada, west to Ariz. and Alta. Prey: Winged queens of *Formica fusca* L., *F. fusca* var. *subsericea* Say, *F.* (*Neoformica*) *pallide-fulva nitidiventris* Emery, and *F.* (*Proformica*) *neogagates* Emery.
Philanthus frigidus F. Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 475. ♂.
Nomada (***Holonomada***) ***dawsoni*** Swenk, 1912. Nebr. Univ. Studies 12: 83. ♂.
Biology: Peckham and Peckham, 1905. Wasps Social and Solitary, pp. 167–177.—Wheeler, 1913. Jour. Anim. Behavior 3: 374–387.

hispidus Fox. Calif.; Mexico.
Aphilanthops hispidus Fox, 1894. Calif. Acad. Sci. Proc. 4: 106. ♂.

subfrigidus Dunning. Northwest. States, B. C.
Aphilanthops subfrigidus Dunning, 1898. Amer. Ent. Soc. Trans. 25: 21. ♂ ♀.

utahensis Baker. Rocky Mtn. States.
Aphilanthops utahensis Baker, 1895. Canad. Ent. 27: 335. ♂.

Subgenus CLYPEADON Patton

Clypeadon Patton, 1897. Ent. News 8: 13.
Type: ***Aphilanthops quadrinotatus*** Ashmead. Monob.

concinnulus Cockerell. N. Mex.
Aphilanthops concinnulus Cockerell, 1896. Canad. Ent. 28: 221. ♂.

laticinctus (Cresson). Rocky Mtn. States.
Philanthus laticinctus Cresson, 1865. Ent. Soc. Phila. Proc. 5: 91. ♂.

phoenix Pate. Ariz.
Aphilanthops (Clypeadon) phoenix Pate, 1947. Pan-Pacific Ent. 23: 66. ♀.

quadrinotatus Ashmead. Rocky Mtn. States. Prey: Workers of *Pogonomyrmex occidentalis* (Cresson).
Aphilanthops quadrinotatus Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 7. ♀.
Biology: Hicks, 1927, 1933. Canad. Ent. 59:51–55; 65: 141–144.

taurulus Cockerell. Ariz., N. Mex. Prey: Workers of *Pogonomyrmex barbatus rugosus* Emery.
Aphilanthops taurulus Cockerell, 1895. Amer. Ent. Soc. Trans. 22: 293. ♂.
Biology: Ainslie, 1909. Canad. Ent. 41: 99–100.

Genus TRACHYPUS Klug

Trachypus Klug, 1810. Mag. Gesell. Naturf. Freunde Berlin 4: 41.
Type: *Trachypus Gomesii* Klug. Monob.
Simblephilus Dahlbom, 1845. Hym. Europaea, v. 1, p. 190.
Type: *Philanthus petiolatus* Spinola. Monob.
Philanthocephalus Cameron, 1890. Biol. Cent.-Amer., Hym., v. 2, p. 86.
Type: *Philanthocephalus gracilis* Cameron. Desig. by Pate, 1937.

The species of this genus provision their nests with bees.

annulitarsis Cameron. ?Southwest. States.
Trachypus annulitarsis Cameron, 1908. Amer. Ent. Soc. Trans. 34: 232 ♀.

Tribe CERCERINI[60]

Genus CERCERIS Latreille

Cerceris Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 367.
Type: (*Philanthus ornatus* Fabricius)=[*Sphex*] *rybyensis* (Linnaeus). Desig. by Latreille, 1810.
Diamma Dahlbom, 1845. Hym. Europaea, v. 1, p. 225. Preocc.
Type: (*Diamma Spinolae* Dahlbom)=*Cerceris binodis* Spinola. Monob.
Didesmus Dahlbom, 1845. Hym. Europaea, v. 1, p. 502. N. name for *Diamma* Dahlbom.
Apiraptrix Shestakov, 1923. Sbornik Jaroslav Gosudarst. Universitet., p. 101.
Type: *Sphex rybyensis* Linnaeus. Orig. desig.
Apicerceris Minkiewicz, 1934. Polski Pismo Ent. 12: 253.
Type: *Sphex rybyensis* Linnaeus. Desig. by Pate, 1937.
Bucerceris Minkiewicz, 1934. Polski Pismo Ent. 12: 253.
Type: *Cerceris bupresticida* Dufour. Monob.
Revisions: Cresson, 1865. Ent. Soc. Phila. Proc. 5: 112–132 (spp. of No. Amer. north of Mexico).—Banks, 1912. Ent. Soc. Amer. Ann. 5: 11–30 (spp. of east. No. Amer.).—Banks, 1947. Psyche 54: 1–35 (West Coast spp.).

acanthophila Cockerell. Ariz., N. Mex.
Cerceris acanthophila Cockerell, 1897. Entomologist 30: 135. ♂.

aequalis Provancher. Lee County, Tex., west to the Pacific and north to Wash.
Cerceris aequalis Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 417. ♀.
Cerceris vicinoides Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 140. "♂"=♀. N. syn.
Cerceris psamathe Banks, 1912. Ent. Soc. Amer. Ann. 5: 21. ♀. N. syn.
Taxonomy: Banks, 1947. Psyche 54: 16. ♀ ♂.

[60] By Herman A. Scullen, Oregon State College, Corvallis, Oreg.

alacris Mickel. Nebr. (Mitchell). This may prove to be a light form of *C. architis* Mick.
Cerceris alacris Mickel, 1918 (1917). Nebr. Univ. Studies 17: 334. ♀.

alceste Mickel. Nebr. (Mitchell).
Cerceris alceste Mickel, 1918 (1917). Nebr. Univ. Studies 17: 333. ♀.

architis Mickel. Miss. Valley east to the Atlantic coast. Prey: *Curculio nasicus* (Say); *C. iowensis* (Casey).
Cerceris architis Mickel, 1916. Amer. Ent. Soc. Trans. 42: 409. ♀.
Cerceris salome Banks, 1923. Canad. Ent. 55: 21. ♀. N. syn.
Cerceris shermani Brimley, 1928. Elisha Mitchell Sci. Soc. Jour. 43: 200. ♀. N. syn.
Biology: Abbott, 1928. Ent. News 39: 205–206 (nesting habits described).

arelate Banks. Va. (Great Falls).
Cerceris arelate Banks, 1912. Ent. Soc. Amer. Ann. 5: 18. ♀.

argia Mickel. Tex. north to Kans. and Colo., west to Ariz.
Cerceris argia Mickel, 1916. Amer. Ent. Soc. Trans. 42: 412. ♀.

argyrotricha Rohwer. N. Mex., Tex. Prey: *Acmaeodera pulchella* (Hbst.) *s. l.* This may be the same as *C. californica* Cresson.
Cerceris argyrotricha Rohwer, 1908. Canad. Ent. 40: 324. ♀.

arizonella Banks. Ariz. (Tempe).
Cerceris arizonella Banks, 1947. Psyche 54: 32. ♂.

arno Banks. Calif. This is probably the female of *C. californica* Cresson.
Cerceris arno Banks, 1947. Psyche 54: 19. ♀.

astarte Banks. Va. (Falls Church).
Cerceris astarte Banks, 1913. Amer. Mus. Nat. Hist. Bul. 32: 424. ♀.

athene Banks. Calif. (Claremont). This may be the female of *femur-rubrum* V. and C.
Cerceris athene Banks, 1947. Psyche 54: 20. ♀. "*C. thione* Banks may be the male."

atramontensis Banks. Upper Miss. Valley east to New England States. Prey: *Conotrachelus nenuphar* (Hbst.).
Cerceris atramontensis Banks, 1913. Amer. Mus. Nat. Hist. Bul. 32: 425. ♀.
Cerceris arbuscula Mickel, 1916. Amer. Ent. Soc. Trans. 42: 410. ♀. N. syn.

austrina Fox. Fla.
Cerceris austrina Fox, 1893. Psyche 6: 556. ♀ ♂.

belfragei Banks. Tex.
Cerceris belfragei Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 114. ♀ ♂.

bicornuta bicornuta Guérin. General over most of U. S. Prey: *Calendra venata* (Say); *C. zeae* (Walsh); *C. parvula* (Gyll.); *C. maidis* (Chitt.); *C. cultellata* (Horn).
Cerceris bicornuta Guérin, 1845. Iconogr. Regne Anim., Ins., v. 7, p. 443. ♀.
Cerceris dufourii Guérin, 1845. Iconogr. Regne Anim., Ins., v. 7, p. 444. ♂.
Cerceris venator Cresson, 1865. Ent. Soc. Phila. Proc. 5: 116. ♂.
Biology: Rau, 1928. Acad. Sci. St. Louis Trans. 25: 337–341, figs. 35, 36 (nesting habits described).—Cartwright, 1929. S. C. Agr. Expt. Sta. Bul. 257: 35.—Strandtmann, 1945. Ent. Soc. Amer. Ann. 38: 311.
Taxonomy: Scullen, 1942. Pan-Pacific Ent. 18: 188.

bicornuta fidelis Viereck and Cockerell, n. status. Southwest. desert from Kans. to Calif.
Cerceris fidelis Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 132. ♀.

biungulata Cresson. Rocky Mts. from Colo. to Ariz.
Cerceris biungulata Cresson, 1865. Ent. Soc. Phila. Proc. 5: 118. ♀.

blakei Cresson. Southeast. States.
Cerceris blakei Cresson, 1865. Ent. Soc. Phila. Proc. 5: 121. ♀.

californica Cresson. Southwest. States.
Cerceris californica Cresson, 1865. Ent. Soc. Phila. Proc. 5: 128. ♂.
Taxonomy: Banks, 1947. Psyche 54: 20. ♂.

calochorti Rohwer. Colo. (Boulder).
Cerceris calochorti Rohwer, 1908. Canad. Ent. 40: 322. ♀.

calodera Banks. Calif. (Jacumba).
Cerceris calodera Banks, 1947. Psyche 54: 22. ♂.

carrizonensis Banks. Tex. (Walde).
Cerceris carrizonensis Banks, 1915. Canad. Ent. 47: 403. ♂.

catawba Banks. N. H., N. C., Ga.
Cerceris catawba Banks, 1912. Ent. Soc. Amer. Ann. 5: 25. ♀ ♂.

chilopsidis Viereck and Cockerell. Southwest. desert area.
Cerceris chilopsidis Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 136. ♀.

cleomae Rohwer. Colo. (Denver).
Cerceris cleomae Rohwer, 1908. Canad. Ent. 40: 325. ♂.

clypeata Dahlbom. Miss. Valley and east. Prey: *Curculio nasicus* (Say); *Tanymecus confusus* Say; *Conotrachelus nenuphar* (Hbst.).
Cerceris clypeata Dahlbom, 1845. Hym. Europaea, v. 1, pp. 221, 500. ♂ ♀.
Cerceris chryssipe Banks, 1912. Ent. Soc. Amer. Ann. 5: 18. ♀ ♂. N. syn.
Cerceris clymene Banks, 1912. Ent. Soc. Amer. Ann. 5: 20. ♂ ♀. N. syn.
Biology: Peckham, 1898. Instincts and Habits of the Solitary Wasps, pp. 109–114.—Peckham, 1905. Wasps Social and Solitary, pp. 144–152.
Taxonomy: Mickel, 1918 (1917). Nebr. Univ. Studies 17: 448, ♀ ♂.—Scullen, 1942. Pan-Pacific Ent. 18: 189.—Scullen, 1949. Pan-Pacific Ent. 25: 71.

cockerelli Viereck. Calif. (La Jolla).
Cerceris cockerelli Viereck, 1902. Acad. Nat. Sci. Phila. Proc. 54: 731. ♂.

cognata Mickel. Wyo. (Worland). This may be a dark variety of *C. californica* Cresson.
Cerceris cognata Mickel, 1916. Amer. Ent. Soc. Trans. 42: 408. ♀.

compacta Cresson. East of the Rocky Mts.
Cerceris compacta Cresson, 1865. Ent. Soc. Phila. Proc. 5: 127. ♂ ♀.

compar Cresson. East of the Rocky Mts.
Cerceris compar Cresson, 1865. Ent. Soc. Phila. Proc. 5: 126. ♂.
Cerceris jucunda Cresson, 1872. Amer. Ent. Soc. Trans. 4: 231. ♂. N. syn.
Cerceris jucunda var. ***carolina*** Banks, 1912. Ent. Soc. Amer. Ann. 5: 26. N. syn.
Taxonomy: Patton, 1880. Boston Soc. Nat. Hist. Proc. 20: 404, ♂ ♀.

complanata Mickel. Calif. (Auburn and Three Rivers). Very near to and may be same as *C. vanduzeei* Banks.
Cerceris complanata Mickel, 1918 (1917). Nebr. Univ. Studies 17: 340. ♂ ♀.

completa Banks. Calif. and south. Oreg.
Cerceris completa Banks, 1919. Canad. Ent. 51: 83. ♂.

conifrons Mickel. Rocky Mtn. area, so. Alta. to Calif.
Cerceris conifrons Mickel, 1916. Amer. Ent. Soc. Trans. 42: 410. ♀.

convergens Viereck and Cockerell. So. Cent. States and west of the Rocky Mts. Tex. to Wash.
Cerceris convergens Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 136. ♀.
Cerceris rinconis Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 137. ♀.
Cerceris hesperina Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 115. ♀ ♂. N. syn.
Cerceris pudorosa Mickel, 1918 (1917). Nebr. Univ. Studies 17: 338. ♀ ♂.
Cerceris snowi Banks, 1919. Canad. Ent. 51: 84. ♂. N. syn.
Taxonomy: Scullen, 1942. Pan-Pacific Ent. 18: 188.—Banks, 1947. Psyche 54: 31, 34.

crawfordi Brimley. N. C. (Raleigh).
Cerceris crawfordi Brimley, 1928. Elisha Mitchell Sci. Soc. Jour. 43: 199. ♂.

crotonella Viereck and Cockerell. N. Mex., Tex.
Cerceris crotonella Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 139. ♀.

dakotensis Banks. N. Dak. (Fargo). Very near to and may prove to be *C. clypeata* Dahlbom.
Cerceris dakotensis Banks, 1915. Canad. Ent. 47: 402. ♀ ♂.

denticularis Banks. Wash., Oreg.
Cerceris denticularis Banks, 1917. Harvard Univ., Mus. Comp. Zool. Bul. 61: 113. ♀ ♂.

dentifrons Cresson. Northeast. States. West to N. Dak. and Nebr. south to Pa.
Cerceris dentifrons Cresson, 1865. Ent. Soc. Phila. Proc. 5: 124. ♀.

deserta Say. Northeast. States and southeast. Canada. West to Que. and Colo. South to Ohio River and Va. Prey: *Conotrachelus posticatus* Boh.
Cerceris deserta Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, app., p. 343. ♂.
Cerceris fulvipes Cresson, 1865. Ent. Soc. Phila. Proc. 5: 126. ♀.
Cerceris fulvipediculata Schletterer, 1887. Zool. Jahrb., Ztschr. f. System. 2: 492. ♀.
Biology: Peckham, 1898. Instincts and Habits of the Solitary Wasps, pp. 115–116.—Peckham, 1905. Wasps Social and Solitary, pp. 152–154.
Taxonomy: Viereck, 1906. Ent. News 17: 397 (descr. of ♀ apparently based on a misidentification).—Scullen, 1942. Pan-Pacific Ent. 18: 187.

echo Mickel. East slope of Rocky Mts. Alta. south to Tex. and east to Minn.
Cerceris echo Mickel, 1916. Amer. Ent. Soc. Trans. 42: 412. ♀.

elegantissima Schletterer. East Fla.
Cerceris elegans Smith, 1856. Cat. Hym. Brit. Mus., v. 5, p. 467. ♂. Preocc.
Cerceris elegantissima Schletterer, 1887. Zool. Jahrb., Ztschr. f. System. 2: 490. N. name.

eriogoni Viereck and Cockerell. N. Mex., Ariz.
Cerceris eriogoni Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 139. ♂.

fasciola Cresson. Ariz., Conn., Minn., Tex.
Cerceris fasciola Cresson, 1872. Amer. Ent. Soc. Trans. 4: 230. ♂.
Taxonomy: Banks, 1912. Ent. Soc. Amer. Ann. 5: 23, ♀.

femur-rubrum Viereck and Cockerell. Southwest. U. S. *C. squamulifera* Mickel or *C. athene* Banks may be the ♀.
Cerceris femur-rubrum Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 135. ♂.
Cerceris thione Banks, 1947. Psyche 54: 18. ♂. N. syn.

ferruginior Viereck and Cockerell. N. Mex., Colo., Ariz.
Cerceris ferruginior Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 134. ♂.
Taxonomy: Banks, 1947. Psyche 54: 25, ♂.

finitima Cresson. Utah and east of the Rocky Mts., Calif. Prey: *Chaetocnema pulicaria* Melsh.
Cerceris finitima Cresson, 1865. Ent. Soc. Phila. Proc. 5: 122. ♀.
Biology: Strandtmann, 1945. Ent. Soc. Amer. Ann. 38: 312.
Taxonomy: Banks, 1912. Ent. Soc. Amer. Ann. 5: 27, ♀ ♂.

finitima var. **nigroris** Banks. Va. (Falls Church).
Cerceris finitima var. *nigroris* Banks, 1912. Ent. Soc. Amer. Ann. 5: 27. ♂.

firma Cresson. Fla. to Tex. and north to Kans. Probably the female of *C. gnara* Cresson.
Cerceris firma Cresson, 1872. Amer. Ent. Soc. Trans. 4: 229. ♀.

flavofasciata Smith. Nebr. east to the Atlantic coast.
Cerceris flavofasciata Smith, 1908. Nebr. Univ. Studies 8: 364. ♀.
Cerceris natallenus Brimley, 1927. Ent. News 38: 238. ♀. N. syn.

floridensis Banks. Fla. (Gulfport).
Cerceris floridensis Banks, 1915. Canad. Ent. 47: 403. ♂.

frontata Say. Southwest from Ark. to Calif.
Cerceris frontata Say, 1823. West. Quart. Rptr. 2: 80. ♀.

fugatrix Mickel. Nebr. (Mitchell). This may prove to be a synonym of *C. sexta* Say.
Cerceris fugatrix Mickel, 1918 (1917). Nebr. Univ. Studies 17: 335. ♂.
Cerceris sayi Banks, 1923. Canad. Ent. 55: 21. ♀ ♂. N. syn.
Cerceris stevensi Banks, 1923. Canad. Ent. 55: 22. ♀. N. syn.

fumipennis Say. East of the Rocky Mts. Prey: *Conotrachelus* sp.; *Buprestis rufipes* Oliv.; *B. consularis* Gory; *B. fasciata* F.; *B. striata* F.; *B. lineata* F.; *B. maculipennis* Gory; *Chrysobothris dentipes* (Germar); *C. floricola* Gory; *C. blanchardi* Horn; *C. femorata* (Oliv.); *C. sexsignata* (Say); *C. verdigripennis* Frost; *Dicerca obscura* (F.); *D. divaricata* (Say); *S. spreta* (Gory); *D. lurida* (F.); *D. punctulata* (Shon.); *D. tuberculata* (Cast.); *Agrilus arcuatus* (Say); *A. bilineatus* (Wet.); *Actenodes acornis* (Say).
Cerceris fumipennis Say, 1837. Boston Jour. Nat. Hist. 1: 381. ♂.
Cerceris cincta Dahlbom, 1845. Hym. Europaea, v. 1, p. 204. ♂.
Cerceris unicincta Tashenberg, 1875. Ztschr. f. d. gesami Naturw. Berlin (n. f.) 11: 397. ♀.
Biology: Hartman, 1905. Tex. Univ. Bul. 65: 66.—Peckham, 1905. Wasps Social and Solitary, pp. 142–143.—Grossbeck, 1912. N. Y. Ent. Soc. Jour. 20: 135, 299.—Cartwright, 1931. Ent. News 42: 269.
Taxonomy: Dalla Torre, 1897. Cat. Hym., v. 8, p. 462.

garciana Viereck and Cockerell. N. Mex. (Las Cruces).
Cerceris garciana Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 135. ♂.

gnara Cresson. Nebr., Tex. East to N. C. and Fla. Probably the male of *C. firma* Cresson.
Cerceris gnara Cresson, 1872. Amer. Ent. Soc. Trans. 4: 229. ♂.

gnarina Banks. Fla. to Tex. and Kans.
Cerceris gnarina Banks, 1913. Amer. Mus. Nat. Hist. Bul. 32: 237. ♀.

grandis Banks. Southwest. Ariz. and south. Calif.
Cerceris grandis Banks, 1913. Amer. Mus. Nat. Hist. Bul. 32: 423. ♀.

halone Banks. East of the Rocky Mts.
Cerceris halone Banks, 1912. Ent. Soc. Amer. Ann. 5: 24. ♀.

huachuca Banks. Ariz. (Patagonia).
Cerceris (*Apiratrix* (!)) *huachuca* Banks, 1947. Psyche 54: 29. ♂.

illota Banks. Ariz., south. Calif.
Cerceris illota Banks, 1947. Psyche 54: 23. ♂.

imitatoria Schletterer. Conn., Ill., Nebr.
Cerceris imitator Cresson, 1865. Ent. Soc. Phila. Proc. 5: 125. ♂. Preocc.
Cerceris immitatoria Schletterer, 1887. Zool. Jahrb., Ztschr. f. System. 2: 494. N. name.
Taxonomy: Packard, 1866. Ent. Soc. Phila. Proc. 6: 63.

insolita Cresson. East of the Rocky Mts.
Cerceris insolita Cresson. 1865. Ent. Soc. Phila. Proc. 5: 129. ♂.
Taxonomy: Smith, 1908. Nebr. Univ. Studies 8: 370. ♀.

intractibilis Mickel. Nebr. (Child's Point). Probably a variety or synonym of *C. insolita* Cresson.
Cerceris intractibilis Mickel, 1916. Amer. Ent. Soc. Trans. 42: 411. ♀.

irene Banks. Tex., Okla., Kans., Minn.
Cerceris irene Banks, 1912. Ent. Soc. Amer. Ann. 5: 26. ♀.

isolde Banks. Ariz. (Palmerlee).
Cerceris isolde Banks, 1947. Psyche 54: 24. ♂.

kennicotti Cresson. East of the Rocky Mts., Ariz.
Cerceris kennicotti Cresson, 1865. Ent. Soc. Amer. Proc. 5: 128. ♂.

macrosticta Viereck and Cockerell. So. Calif. east to Ill. and north to Nebr. Prey: Tenebrionid.
Cerceris macrosticta Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 133. ♂.
Cerceris ampla Banks, 1912. Ent. Soc. Amer. Ann. 5: 16. ♀ ♂.
Taxonomy: Scullen, 1942. Pan-Pacific Ent. 18: 187.

mandibularis Patton. East of the Rocky Mts.
Cerceris mandibularis Patton, 1880. Boston. Soc. Nat. Hist. Proc. 20: 403. ♀ ♂.

melanthe Banks. Ariz. (Apache Co., Santa Catalina Mts.).
Cerceris melanthe Banks, 1947. Psyche 54: 21. ♀.

mimica Cresson. Tex.
Cerceris mimica Cresson, 1872. Amer. Ent. Soc. Trans. 4: 228. ♀ ♂.
Cerceris minima (!) Schletterer, 1887. Zool. Jahrb., Ztschr. f. System. 2: 497.
Cerceris englehardti Banks, 1947. Psyche 54: 12. ♂. N. syn.

minax Mickel. West of the Rocky Mts.
Cerceris minax Mickel, 1918 (1917). Nebr. Univ. Studies 17: 339. ♀ ♂.

morata Cresson. Ariz., Tex., N. Mex.
Cerceris morata Cresson. 1872. Amer. Ent. Soc. Trans. 4: 230. ♀.
Cerceris nasica Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 132. ♀.
Cerceris platyrhina Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 133. ♀.
Taxonomy: Scullen, 1942. Pan-Pacific Ent. 18: 188.

munda Mickel. Calif. (Sacramento). This may prove to be a yellow form of *C. nigrescens* Smith.
Cerceris munda Mickel, 1918 (1917). Nebr. Univ. Studies 17: 337. ♀ ♂.

nebrascensis Smith. Nebr. (Glen, Sioux Co.).
Cerceris nebrascensis Smith, 1908. Nebr. Univ. Studies 8: 368. ♀.

nigrescens Smith. North. States and south. Canada, Pacific to Atlantic. Prey: *Hyperodes delumbis* (Gyll.); *Sitona hispidula* (F.); *Gymnaetron* sp.; *G. antirrhini* (Payk.).
Cerceris nigrescens F. Smith, 1856. Cat. Hym. Brit. Mus. 4: 466. ♀.
Cerceris abbreviata Banks, 1919. Canad. Ent. 51: 84. ♂. N. syn.
Biology: Krombein, 1936. Ent. News 47: 94–95.—Krombein, 1938. Ent. News 49: 1–3.—Peckham, 1898. Instincts and Habits of the Solitary Wasps, pp. 116–117.—Peckham, 1905. Wasps Social and Solitary, p. 142.

nigritulus Banks. New York, (Colden).
Cerceris nigritulus Banks, 1915. Canad. Ent. 47: 402. ♂.

nitida Banks. N. C., Nebr.
Cerceris nitida Banks, 1913. Amer. Mus. Nat. Hist. Bul. 32: 424. ♀ ♂.

novomexicana Viereck and Cockerell. N. Mex. (Johnson Park).
Cerceris novomexicana Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 137. ♀.

occidentalis Saussure. Tex.
Cerceris occidentalis Saussure, 1867. Reise d. Novara, Zool., v. 2, Hym., p. 100. ♀.

occipitomaculata Packard. Nebr., Kans., Tex.
Cerceris occipitomaculata Packard, 1866. Ent. Soc. Phila. Proc. 6: 62. ♂.

orestes Banks. Ariz. (Patagonia).
Cerceris orestes Banks, 1947. Psyche 54: 13. ♀ ♂.

orphne Banks. N. Mex. (Jemez Springs). May be a light form or subspecies of *C. bicornuta* Guérin.
Cerceris orphne Banks, 1947. Psyche 54: 15. ♂.

populorum Viereck and Cockerell. N. Mex., Ariz.
Cerceris populorum Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 135. ♂.
Cerceris interjecta Banks, 1919. Canad. Ent. 51: 84. ♂. N. syn.

posticata Banks. N. Mex. (Jemez Mts.).
Cerceris posticata Banks, 1916. Ent. News 27: 64. ♂.

prominens Banks. Va. (Falls Church).
Cerceris prominens Banks, 1912. Ent. Soc. Amer. Ann. 5: 19. ♀ ♂.
Cerceris alaope Banks, 1912. Ent. Soc. Amer. Ann. 5: 22. ♂ ♀.
Taxonomy: Scullen, 1942. Pan-Pacific Ent. 18: 188.

raui Rohwer. Mo., Kans. Prey: *Thecesternus humeralis* (Say); *Lixus concavus* Say.
Cerceris raui Rohwer, 1920. U. S. Nat. Mus. Proc. 57: 230. ♀ ♂.
Biology: Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 325–337, figs. 30–34.

rhois Rohwer. N. Mex. Prey. *Thecesternus humeralis* (Say); *Lixus concavus* Say.
Cerceris rhois Rohwer, 1908. Canad. Ent. 40: 325. ♂.
Biology: Rau, 1928. Field Studies in the Behavior of the Non-Social Wasps, pp. 325–337.

robertsonii Fox. S. Dak. and Kans. east to N. Y. and Va.
Cerceris robertsonii Fox, 1893. N. Y. Ent. Soc. Jour. 1: 55. ♀ ♂.
Cerceris pleuralis Smith, 1908. Nebr. Univ. Studies 8: 366. ♂ ♀. N. syn.

rufinoda Cresson. Alta. and most of the U. S. except Calif., the Southeast and Northeast. Prey: *Miccotrogus picirostris* (F.); *Semicronyx squalidus* Casey.
Cerceris rufinoda Cresson, 1865. Ent. Soc. Phila. Proc. 5: 121. ♂.
Biology: Strandtmann, 1945. Ent. Soc. Amer. Ann. 38: 311.
Taxonomy: Banks, 1912. Ent. Soc. Amer. Ann. 5: 26, ♀ ♂.

rufinoda var. **crucis** Viereck and Cockerell. N. Mex., Colo., Kans., Utah., Tex.
Cerceris rufinoda var. *crucis* Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 139. ♀.

rufo-picta Smith. Fla.
Cerceris rufo-picta F. Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 467. ♂.

semiatra Banks. Ariz. (Patagonia).
Cerceris semiatra Banks, 1947. Psyche 54: 25. ♂.

seminigra Banks. Ariz. (Patagonia).
Cerceris (*Apiratrix* (!)) *seminigra* Banks, 1947. Psyche 54: 33. ♂.

sexta Say. Nebr., Kans. Mo., Colo., Ariz., Wyo.
Cerceris sexta Say, 1837. Boston Jour. Nat. Hist. 1: 382. ♂.

sextoides Banks. Wash. to Calif.
Cerceris sextoides Banks, 1947. Psyche 54: 10. ♀ ♂.
Cerceris eurymele Banks, 1947. Psyche 54: 11. ♀ ♂. N. syn.

solidaginis Rohwer. N. Mex., Ariz.
Cerceris solidaginis Rohwer, 1908. Canad. Ent. 40: 323. ♂.
Taxonomy: Banks, 1947. Psyche 54: 15, ♀ ♂.

squamulifera Mickel. Nebr. (Imperial). This may be the female of *C. femur-rubrum* Viereck and Cockerell.
Cerceris squamulifera Mickel, 1916. Amer. Ent. Soc. Trans. 42: 411. ♀.

stigmosalis Banks. N. Dak. (Fargo).
Cerceris stigmosalis Banks, 1916. Ent. News 27: 64. ♂.

texensis Saussure. Tex.
Cerceris texensis Saussure, 1867. Reise d. Novara, Zool., v. 2, Hym., p. 89. ♀.

townsendi Viereck and Cockerell. N. Mex. (Las Cruces).
Cerceris townsendi Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 140. ♀.

vanduzeei Banks. Calif. (San Diego).
Cerceris vanduzeei Banks. 1917. Harvard Univ. Mus., Compar. Zool. Bul. 61: 114. ♀.

varians Mickel. Calif.
Cerceris varians Mickel, 1918 (1917). Nebr. Univ. Studies 17: 336. ♀ ♂.

verticalis Smith. Ga.
Cerceris verticalis F. Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 466. ♀.

vicina Cresson. Rocky Mts., Colo., Nebr.
Cerceris vicina Cresson, 1865. Ent. Soc. Amer. Proc. 5: 120. ♀.

vierecki Banks. Ariz. (Tempe).
Cerceris (*Apiratrix* (!)) *vierecki* Banks, 1947. Psyche 54: 30. ♀.

zelica Banks. Tex.
Cerceris zelica Banks, 1912. Ent. Soc. Amer. Ann. 5: 23. ♂ ♀.

zobeide Brimley. N. C. (Raleigh).
Cerceris zobeide Brimley, 1929. Ent. News 40: 194. ♂.

zosma Brimley. N. C. (Raleigh).
Cerceris zosma Brimley, 1929. Ent. News 40: 195. ♂.

Genus EUCERCERIS Cresson

Eucerceris Cresson, 1865. Ent. Soc. Phila. Proc. 5: 104.
Type: *Eucerceris fulvipes* Cresson. Desig. by Pate, 1937.
Revisions: Scullen, 1939. Oreg. State Monog., Studies in Ent., v. 1.—Scullen, 1948. Pan-Pacific Ent. 24: 155–180.

angulata Rohwer. Ariz.
Eucerceris angulata Rohwer, 1912. Amer. Mus. Nat. Hist. Bul. 31: 326. ♀.
Taxonomy: Scullen, 1939. Oreg. State Monog., Studies in Ent. 1: 57, ♂.

arenaria Scullen. South. Calif., Ariz., N. Mex.
Eucerceris arenaria Scullen, 1948. Pan-Pacific Ent. 24: 168. ♀ ♂.

arizonensis Scullen. Ariz. (Huachuca Mts.). This will probably prove to be the female of *E. lacunosa* Scullen.
Eucerceris arizonensis Scullen, 1939. Oreg. State Monog., Studies in Ent. 1: 20. ♀.

biconica Scullen. El Paso, Tex.
Eucerceris biconica Scullen, 1948. Pan-Pacific Ent. 24: 178. ♀.

bitruncata Scullen. Tex., N. Mex.
Eucerceris bitruncata Scullen, 1939. Oreg. State Monog., Studies in Ent. 1: 35. ♀.
Taxonomy: Scullen, 1948. Pan-Pacific Ent. 24: 171.

canaliculata (Say). From the Missouri River southwest to Calif.
Philanthus canaliculatus Say, 1823. West Quart. Rptr. 2: 79. ♂.
Cerceris bidentata Say, 1823. West. Quart. Rptr. 2: 80. ♀.
Cerceris cameroni Schulz, 1906. Spolia Hym., p. 194.

canaliculata var. **atronitida** Scullen. Ariz., Colo., N. Mex., Tex., Utah.
Eucerceris canaliculata var. *atronitida* Scullen, 1936. Oreg. State Monog., Studies in Ent. 1: 50. ♂ ♀.

conata Scullen. Nebr.
Eucerceris elegans Mickel, 1916. Amer. Ent. Soc. Trans. 42: 413. ♀. Preocc.
Eucerceris conata Scullen, 1939. Oreg. State Monog., Studies in Ent. 1: 34. ♀.

elegans Cresson. Ariz., Nev., Nebr.
Eucerceris elegans Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxiii. ♂.
Cerceris nevadensis Dalla Torre, 1890. Wien. Ent. Ztg. 9: 200.
Eucerceris pimarum Cockerell and Rohwer, 1908. Canad. Ent. 40: 326. ♀.
Eucerceris apicata Banks, 1915. Canad. Ent. 47: 404. ♂.
Taxonomy: Scullen, 1948. Pan-Pacific Ent. 24: 171.

ferruginosa Scullen. Calif. (Mohave Desert north of Palmdale).
Eucerceris ferruginosa Scullen, 1939. Oreg. State Monog., Studies in Ent. 1: 45. ♀.

flavocincta Cresson. Rocky Mts. and west; 2,000 ft. and above. Prey: *Dyslobus lecontei* Casey.
Eucerceris flavocinctus Cresson, 1865. Ent. Soc. Phila. Proc. 5: 109. ♀.
Eucerceris cingulatus Cresson, 1865. Ent. Soc. Phila. Proc. 5: 110. ♂.
Eucerceris striareata Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 85. ♀.

Eucerceris chapmanae Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour.12: 86. ♂.
Biology: Scullen, 1939. Oreg. State Monog., Studies in Ent. 1: 12–14, ♂ ♀.

fulvipes Cresson. From the Pacific States east to N. Dak., S. Dak., Nebr., Kans.
Eucerceris fulvipes Cresson, 1865. Ent. Soc. Phila. Proc. 5: 111. ♀ ♂.
Eucerceris flavipes (!) Ashmead, 1899. Canad. Ent. 31: 295. ♀.
Cerceris cressoni Schletterer, 1887. Zool. Jahrb., Ztschr. f. System. 2: 489.
Eucerceris simulatrix Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 87. ♂.

hespera Scullen. West. Tex.
Eucerceris hespera Scullen, 1948. Pan-Pacific Ent. 24: 171. ♂.

insignis Provancher. Cent. and south. Calif.
Eucerceris insignis Provancher, 1889. Addit. Corr. Faune Ent. Canada Hym., p. 418. ♂.
Cerceris provancheri Dalla Torre, 1890. Wien. Ent. Ztg. 9: 204. N. name.
Taxonomy: Scullen, 1939. Oreg. State Monog., Studies in Ent. 1: 44, ♀ descr.

lacunosa Scullen. Ariz.
Eucerceris lacunosa Scullen, 1939. Oreg. State Monog., Studies in Ent. 1: 19. ♂.

melanovittata Scullen. South. Ariz., N. Mex., west. Tex.
Eucerceris melanovittata Scullen, 1948. Pan-Pacific Ent. 24: 164. ♂.

mellea Scullen. West. Tex.
Eucerceris mellea Scullen, 1948. Pan-Pacific Ent. 24: 165. ♀ ♂.

montana Cresson. Rocky Mtn. area, Mont. to Tex.
Eucerceris montanus Cresson, 1882. Amer. Ent. Soc. Trans. 10: Proc. p. viii. ♀ ♂.

rubripes Cresson. Rocky Mts. to east. Nebr. and Kans.; north to Canada and south to Tex.
Eucerceris rubripes Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxiii. ♂.
Eucerceris unicornis Patton, 1879. U. S. Geol. and Geog. Survey Bul. 5: 359. ♀.
Aphilanthops marginipennis Cameron, 1890. Biol. Cent.-Amer., Hym., v. 2, p. 105.

ruficeps Scullen. Calif. (Antioch).
Eucerceris ruficeps Scullen, 1948. Pan-Pacific Ent. 24: 175. ♀.

similis Cresson. Oreg., Calif., Nev., south. Idaho, west. Wyo.
Eucerceris similis Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxiv. ♀ ♂.

sinuata Scullen. Tex. (Devils River).
Eucerceris sinuata Scullen, 1939. Oreg. State Monog., Studies in Ent. 1: 47. ♀.

superba Cresson. Rocky Mts. east to N. Dak., S. Dak., Nebr., Kans.
Eucerceris superbus Cresson, 1865. Ent. Soc. Phila. Proc. 5: 108. ♂.
Eucerceris fulviceps Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxiii. ♀.
Eucerceris fulviceps var. *rhodops* Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 88. ♀.
Biology: Stevens, 1917. Ent. News 28: 422.

superba var. **bicolor** Cresson. Alta., Mont., N. Dak., S. Dak., Wyo.
Eucerceris bicolor Cresson, 1881. Amer. Ent. Soc. Trans. 9: Proc. p. xxxviii. ♀.
Cerceris dichroa Dalla Torre, 1890. Wien. Ent. Ztg. 9: 199. ♀.
Taxonomy: Scullen, 1939. Oreg. State Monog., Studies in Ent. 1: 37, ♀.

triciliata Scullen. Southwest. Ariz., south. N. Mex., west. Tex.
Eucerceris triciliata Scullen, 1948. Pan-Pacific Ent. 24: 172. ♂.

tricolor Cockerell. Ariz., N. Mex., west Tex.
Eucerceris vittatifrons var. *tricolor* Cockerell, 1897. Entomologist 30: 136. ♂.
Eucerceris tricolor Viereck and Cockerell, 1904. N. Y. Ent. Soc. Jour. 12: 87.
Taxonomy: Scullen, 1939. Oreg. State Monog., Studies in Ent. 1: 53, ♀ descr.

vittatifrons Cresson. Wash., Calif., Nev., Utah, Colo., Ariz., N. Mex., Oreg., Idaho.
Eucerceris vittatifrons Cresson, 1879. Amer. Ent. Soc. Trans. 7: Proc. p. xxiv. ♂.
Taxonomy: Scullen, 1936. Oreg. State Monog., Studies in Ent. 1: 51, ♀ descr.

zonata (Say). East slope of the Rocky Mts. to Northeast. States.
Philanthus zonata Say, 1823. West. Quart. Rptr. 2: 80. ♂.
Eucerceris laticeps Cresson, 1865. Ent. Soc. Phila. Proc. 5: 107. ♂ ♀.
Eucerceris zonatus var. *laticeps* Cresson, 1882. Amer. Ent. Soc. Trans. 10: Proc. p. vii. ♂ ♀.

Subfamily CRABRONINAE

Tribe CRABRONINI[61]

The ethology of the species is varied, some groups nesting in the soil, others in wood; and many different kinds of insects are used as prey.

Revisions: Fox, 1895. Amer. Ent. Soc. Trans. 22: 129–226 (No. Amer. spp.).—Pate, 1944. Amer. Midland Nat. 31: 329–384 (gen. of world).

Genus ANACRABRO Packard

Anacrabro Packard, 1866. Ent. Soc. Phila. Proc. 6: 67.
Type: *Anacrabro ocellatus* Packard. Monob.
Taxonomy: Pate, 1947. Notulae Nat. 185: 1–2.—Krombein, 1948. Brooklyn Ent. Soc. Bul. 43: 20–21.

ocellatus ocellatus Packard. S. Canada and U. S. east of Rockies, except Fla. Nests in ground. Prey: *Lygus oblineatus* (Say).
Anacrabro ocellatus Packard, 1866. Ent. Soc. Phila. Proc. 6: 68. ♀.
Anacrabro boerhaviae Cockerell, 1895. Canad. Ent. 27: 308. ♂.
Biology: Barth, 1908. Wis. Nat. Hist. Soc. Bul. 6: 147–153, 10 figs.

ocellatus robertsoni Rohwer. Fla.
Anacrabro robertsoni Rohwer, 1920. Ent. Soc. Wash. Proc. 22: 58. ♀.

Genus ENTOMOGNATHUS Dahlbom

The species nest in soil, and in Europe provision with adult Chrysomelidae. The prey of the American forms is unknown.

Subgenus ENTOMOGNATHUS Dahlbom

Entomognathus Dahlbom, 1845. Hym. Europaea, v. 1, p. 295.
Type: *Crabro brevis* Van der Linden. Monob.

The typcial subgenus does not occur in North America.

Subgenus TONCAHUA Pate

Entomognathus subg. *Toncahua* Pate, 1944. Amer. Midland Nat. 31: 341.
Type: *Entomognathus texanus* Cresson. Monob. and orig. desig.

lenapeorum Viereck. N. J., Pa., Md., Va., ?N. C. Open woods.
Entomognathus lenapeorum Viereck, 1904. Amer. Ent. Soc. Trans. 30: 239. ♀.

memorialis Banks. Va. Open woods.
Entomognathus memorialis Banks, 1921. Ent. Soc. Amer. Ann. 14: 16. ♀.

mexicana Cameron. Tex. (Waco); Mexico.
Entomognathus mexicanus Cameron, 1904. Amer. Ent. Soc. Trans. 30: 266.

[61] By Karl V. Krombein, U. S. Bureau of Entomology and Plant Quarantine.

panurgoides (Viereck), n. comb. Pa. (Lehigh Gap).
Anothyreus panurgoides Viereck, 1904. Amer. Ent. Soc. Trans. 30: 239. ♂ (♀ misdet.).

texana Cresson. Tex.
Entomognathus texanus Cresson, 1887. Amer. Ent. Soc. Trans., Sup. Vol., p. 286. ♀ ♂.

Genus ENCOPOGNATHUS Ashmead

The name *Encopognathus* was first employed by Kohl, 1896 (K. K. Naturhist. Hofmus. Ann. 11: 485, 486). However, it may not be validated from that date, for Kohl proposed it as a name for a species group ("Artengruppe") of the subgenus *Lindenius*. The earliest use of the name in a generic or subgeneric sense was by Ashmead, 1899, who characterized it as a genus.

The species nest in soil, and African forms are known to provision their nests with ants. The prey of the American species has not been discovered.

Taxonomy: Pate, 1943. Lloydia 6: 53–76, 15 figs. (key to subg. and revision of No. Amer. spp.).

Subgenus ENCOPOGNATHUS Ashmead

Encopognathus Ashmead, 1899. Canad. Ent. 31: 166.
Type: *Crabro (Encopognathus) Braueri* Kohl. Monob. and orig. desig.

The typical subgenus does not occur in North America.

Subgenus RHECTOGNATHUS Pate

Encopognathus subg. *Rhectognathus* Pate, 1936. Ent. News 47: 147.
Type: *Encopognathus (Rhectognathus) pectinatus* Pate. Monob. and orig. desig.

pectinatus Pate. Calif.
Encopognathus (Rhectognathus) pectinatus Pate, 1936. Ent. News 47: 148. ♀ ♂.

rufiventris Timberlake. Calif. (San Bernardino Co.).
Encopognathus (Rhectognathus) rufiventris Timberlake, 1940. Ent. News 51: 167. ♀.

Subgenus TSAISUMA Pate

Encopognathus subg. *Tsaisuma* Pate, 1943. Lloydia 6: 57.
Type: *Lindenius wenonah* Banks. Monob. and orig. desig.

wenonah (Banks). Calif., Oreg.
Lindenius wenonah Banks, 1921. Ent. Soc. Amer. Ann. 14: 16. ♂.

Genus LINDENIUS Lepeletier and Brullé

The species nest in the soil. European species have been recorded as provisioning with a wide variety of small insects including Diptera, Hemiptera, and Hymenoptera.

Taxonomy: Pate, 1947. Notulae Nat. 185: 4–7 (key to subg. and syn. of No. Amer spp.).

Subgenus LINDENIUS Lepeletier and Brullé

Lindenius Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 791.
Type: *Crabro albilabris* Fabricius. Desig. by Girard, 1879.
Lindenius subg. *Chalcolamprus* Wesmael, 1852. Acad. Roy. Sci. Belg. Bul. 19: 590.
Type: *Crabro albilabris* Fabricius. Monob.

The typical subgenus does not occur in North America.

Subgenus TRACHELOSIMUS Morawitz

Crabro subg. ***Trachelosimus*** Morawitz, 1866. Acad. Imp. Sci. St. Petersburg Bul. 9: 249.
Type: ***Crabro armatus*** Van der Linden. Monob.

armaticeps (Fox). Canada and U. S. in Transit. and Austr. Zones east of Cascade and Sierra Nevada ranges.
Crabro armaticeps Fox, 1895. Amer. Ent. Soc. Trans. 22: 185. ♂.
Crabro flaviclypeus Fox, 1895. Amer. Ent. Soc. Trans. 22: 186. ♀.
Crabro (Lindenius) zellus Rohwer, 1909. Ent. News 20: 151. ♀.

buccadentis Mickel. N. Y., Va., Iowa, Nebr., Kans., Ariz.
Lindenius buccadentis Mickel, 1916. Amer. Ent. Soc. Trans. 42: 427. ♀ ♂.

columbianus columbianus (Kohl). B. C., Wash., Utah, Idaho.
Crabro (Lindenius) columbianus Kohl, 1892. K. K. Naturhist. Hofmus. Ann. 7: 203. ♀.
Crabro pinguis Fox, 1895. Amer. Ent. Soc. Trans. 22: 186. ♀.

columbianus errans (Fox). S. Canada and U. S. east of Rockies.
Crabro errans Fox, 1895. Amer. Ent. Soc. Trans. 22: 184. ♀ ♂.
Ammoplanus salicis Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 402. ♀.

latifrons (Fox), n. comb. Tex.
Crabro latifrons Fox, 1895. Amer. Ent. Soc. Trans. 22: 185. ♀.

tecuya Pate. Calif.
Lindenius (Trachelosimus) tecuya Pate, 1947. Notulae Nat. 185: 5. ♀ ♂.

Genus TRACHELIODES Morawitz

Crabro subg. ***Brachymerus*** Dahlbom, 1845. Hym. Europaea, v. 1, p. 519 Preocc.
Type: (***Crabro (Brachymerus) Megerlei*** Dahlbom) = ***Tracheliodes curvitarsis*** (Herrich-Schaeffer). Monob.
Tracheliodes Morawitz, 1866. Acad. Imp. Sci. St. Petersburg Bul. 9: 249. N. name.
Fertonius Pérez, 1892. *In* Ferton, Soc. Linn. Bordeaux Actes 44: 341.
Type: (***Crabro luteicollis*** Lepeletier and Brullé) = ***Tracheliodes 5-notatus*** (Jurine). Desig. by Pate, 1937.
Revision: Pate, 1942. Lloydia 5: 222–244, 7 figs.

The species nest in soil and provision with worker ants of the genera *Liometopum* and *Tapinoma*.

amu Pate. N. Mex. (Pecos).
Tracheliodes amu Pate, 1942. Lloydia 5: 235. ♂.

foveolineatus (Viereck). Colo., Oreg., Calif.
Crabro (Cuphopterus) foveolineatus Viereck, 1909. Ent. Soc. Wash. Proc. 11: 44. ♀.

hicksi Sandhouse. Colo., Ariz. Prey: Workers of *Liometopum* sp.
Tracheliodes hicksi Sandhouse, 1936. Ent. News 47: 2. ♀.
Biology: Hicks, 1936. Ent. News 47: 4–7.

Genus CRABRO Fabricius

The species nest principally in soil, though occasionally in rotten wood, and provision with Diptera.

Subgenus PARANOTHYREUS Ashmead

Paranothyreus Ashmead, 1899. Canad. Ent. 31: 213.
Type: ***Crabro hilaris*** Smith. Orig. desig.

The name *Paranothyreus* was first employed by Kohl, 1896 (K. K. Naturhist. Hofmus. Ann. 11: 490). However, it may not be validated from that date, for Kohl proposed it as a name for a subgroup ("Unter-

gruppe") of the species group ("Artengruppe") *Thyreopus* of the subgenus *Crabro*. The earliest use of the name in a generic or subgeneric sense was by Ashmead, 1899, who characterized it as a genus.

aequalis Fox. N. J., Ga.
Crabro aequalis Fox, 1895. Amer. Ent. Soc. Trans. 22: 164. ♀.
Paranothyreus rugicollis Viereck, 1904. Amer. Ent. Soc. Trans. 30: 241. ♂. N. syn.
Taxonomy: Krombein, 1938. Ent. Soc. Amer. Ann. 31: 470.

cingulatus (Packard). N. J., Ala., Ill., Nebr., Kans., Mo., Tex., south into Mexico. Nests in soil. Prey: *Paralimna punctipennis* (Wied.).
Thyreopus cingulatus Packard, 1867. Ent. Soc. Phila. Proc. 6: 366. ♀ ♂.
Biology: Rau and Rau, 1918. Wasp Studies Afield, pp. 96–101, figs. 24–26.—Rau, 1938, Ent. Soc. Amer. Ann. 31: 543.

clarconis Viereck. Kans. (Clark Co.).
Crabro clarconis Viereck, 1906. Amer. Ent. Soc. Trans. 32: 213. ♀.

cognatus Fox. N. H. south to Ga., Iowa, Nebr., Tex., Colo., Utah, Mont., Alta.
Crabro cognatus Fox, 1895. Amer. Ent. Soc. Trans. 22: 178. ♀ ♂.

hilaris Smith. N. J. to Fla.; Ill., Nebr., Tex.
Crabro hilaris Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 416. ♀.

rufibasis (Banks), n. comb. Fla.
Thyreopus rufibasis Banks, 1921. Ent. Soc. Amer. Ann. 14: 17. ♀.

snowii Fox. N. Y., Md., Va., Minn., Kans.
Crabro snowii Fox, 1896. Amer. Ent. Soc. Trans. 23: 79. ♀ ♂.

Subgenus SYNOTHYREOPUS Ashmead

Synothyreopus Ashmead, 1899. Canad. Ent. 31: 213.
Type: ***Thyreopus tumidus*** Packard. Orig. desig.

advenus Smith. Transcont. in U. S. and Canada, chiefly in Transit. Zone. Nests in ground. Prey: Muscoid Diptera.
Crabro pegasus Harris, 1835. *In* Hitchcock, Rpt. Geol. Mineral. Bot. Zool. Mass., p. 68. *Nom. nud.*
Crabro advena Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 421. ♀ (♂misdet.).
Crabro succinctus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 479. ♀.
Thyreopus pegasus Packard, 1867. Ent. Soc. Phila. Proc. 6: 362. ♀ ♂.
Biology: Patton, 1897. Canad. Ent. 29: 248.

brachycarpæ Rohwer. Colo. (Florissant).
Crabro (Thyreopus) brachycarpae Rohwer, 1908. Ent. News 19: 252. ♂.

bruneri (Mickel), n. comb. Nebr. (Sioux Co.).
Thyreopus (Synothyreopus) bruneri Mickel, 1916. Amer. Ent. Soc. Trans. 42: 422. ♀ ♂.

conspicuus Cresson. Colo., Nev., Calif., Wash., Alta.
Crabro conspicuus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 480. ♀.
Crabro medius Fox. 1895. Amer. Ent. Soc. Trans. 22: 167. ♂. N. syn.

florissantensis Rohwer. N. Mex., Colo., Utah, Wyo., Wash.
Crabro (Synothyreopus) florissantensis Rohwer, 1909. Ent. News 20: 149. ♂.

gillettei Rohwer. Colo. (Larimer Co.).
Crabro (Paranothyreus) gillettei Rohwer, 1908. Ent. News 19: 418. ♀.

henrici Krombein, n. name. N. J., Va.
Thyreopus (Synothyreopus) vierecki Rohwer, 1910. Ent. Soc. Wash. Proc. 12: 50. ♂. Preocc. by H. S. Smith, 1908.

hispidus Fox. Oreg., Wash.
Crabro hispidus Fox, 1895. Amer. Ent. Soc. Trans. 22: 192. ♀.

lacteipennis Rohwer. Colo., Tex.
Crabro (Thyreopus) lacteipennis Rohwer, 1909. Ent. News 20: 150. ♀.

peltista Kohl. Tex. to Cent. Amer.
Crabro (Thyreopus) peltista Kohl, 1888. Zool. Jahrb., Ztschr. f. System. 3: 586. ♀ ♂.
Crabro incertus Fox, 1895. Amer. Ent. Soc. Trans. 22: 174. ♀ (♂ misdet.). N. syn.

pratus Carter. Alta. (Chin).
Crabro pratus Carter, 1925. Canad. Ent. 57: 133. ♀.

signifer (Packard). Maine (Brunswick).
Thyreopus signifer Packard, 1867. Ent. Soc. Phila. Proc. 6: 361. ♀ ♂.

tenuiglossus Packard. Ont., Mich., Ill., Minn., N. Dak., S. Dak., Alta.
Crabro tenuiglossa Packard, 1866. Ent. Soc. Phila. Proc. 6: 98. ♀.
Thyreopus discifer Packard, 1867. Ent. Soc. Phila. Proc. 6: 363. ♂.

thyreophorus Kohl. Nev.
Crabro (Thyreopus) thyreophorus Kohl, 1888. Zool. Jahrb., Ztschr. f. System. 3: 585, pl. 14. ♀ ♂.

tumidus (Packard). N. Y. to S. C., Ill., Nebr.
Thyreopus tumidus Packard, 1867. Ent. Soc. Phila. Proc. 6: 364. ♀ ♂.

veles Carter. Alta. (Edmonton).
Crabro veles Carter, 1925. Canad. Ent. 57: 134. ♂.

vernalis (Packard). N. J., Mich., Ill., Colo., Wyo., Alaska.
Thyreopus vernalis Packard, 1867. Ent. Soc. Phila. Proc. 6: 369. ♀.

virgatus Fox. Calif., Nev., Idaho, Alta.
Crabro virgatus Fox, 1895. Amer. Ent. Soc. Trans. 22: 174. ♂.

Subgenus CRABRO Fabricius

Crabro Fabricius, 1775. Systema Ent., p. 373. Preocc., but placed on Official List of Generic Names of Internatl. Comn. Zool. Nomencl., 1936.
Type: *Vespa cribraria* Linnaeus. Desig. by Latreille, 1810.
Pemphilis Risso, 1826. Hist. Nat. Europ. Merid., v. 5, p. 227.
Type: (*Crabro palmatus* Panzer) = [*Vespa*] *cribraria* Linnaeus. Desig. by Pate, 1935.
Crabro subg. *Thyreopus* Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 519.
Type: *Vespa cribraria* Linnaeus. Desig. by Ashmead, 1899.

cribrellifer (Packard). N. H. to Fla., Ont., Mich., Ind. Prey: *Ommatius tibialis* Say.
Thyreopus cribrellifer Packard, 1867. Ent. Soc. Phila. Proc. 6: 358. ♂.
Thyreopus sinuatus Provancher, 1882. Faune Ent. Canada, Hym., p. 664. ♀. Preocc. N. syn.
Crabro Provancheri Fox, 1895. Amer. Ent. Soc. Trans. 22: 168. N. name. N. syn.

discretus Fox. N. Y., D. C. Prey: *Pollenia rudis* (F.).
Crabro discretus Fox, 1895. Amer. Ent. Soc. Trans. 22: 165. ♀.
Taxonomy: Krombein, 1938. Ent. Soc. Amer. Ann. 31: 470.

elongatus (Provancher). Que. (Cap Rouge).
Thyreopus elongatus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 293. ♂.
Crabro canadensis Dalla Torre, 1897. Cat. Hym., v. 8, p. 585. N. name for *elongatus* Provancher not *Crossocerus elongatus* (!) (*recte elongatulus*) Lepeletier and Brullé.

juniatae Krombein. Pa., Va.
Crabro (Crabro) juniatae Krombein, 1938. Ent. Soc. Amer. Ann. 31: 469. ♀.

largior Fox. S. Dak., Nebr., Colo., Tex., Utah, Nev., Mont., Oreg., Calif.
Crabro largior Fox, 1895. Amer. Ent. Soc. Trans. 22: 161. ♀ ♂.

latipes Smith. Transcont. in Alaska, Canada, U. S. in Transit. and Canad. Zones. Prey: *Musca domestica* L.

Crabro gryphus Harris, 1835. *In* Hitchcock, Rpt. Geol. Mineral. Bot. Zool. Mass., p. 68. *Nom. nud.*
Crabro latipes Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 396. ♂.
Thyreopus coloradensis Packard, 1867. Ent. Soc. Phila. Proc. 6: 356. ♂.

monticola (Packard). Canada, Maine to Ga.
Thyreopus monticola Packard, 1867. Ent. Soc. Phila. Proc. 6: 367. ♀.

pallidus Fox. Mont.
Crabro pallidus Fox, 1895. Amer. Ent. Soc. Trans. 22: 163. ♀ ♂.

pleuralis Fox. Nebr., Colo., Alta., B. C., Wash.
Crabro pleuralis Fox, 1895. Amer. Ent. Soc. Trans. 22: 162. ♀ ♂.

tenuis Fox. Colo., Alta., Wash.
Crabro tenuis Fox, 1895. Amer. Ent. Soc. Trans. 22: 166. ♀ ♂.

viciniformis Viereck. Ariz. (Coconino Co.).
Crabro (Anothyreus) viciniformis Viereck, 1907. Amer. Ent. Soc. Trans. 33: 381. ♀.

vicinus Cresson. Nebr., Colo., Ariz., Nev., Mont., Wash., Oreg., Calif.
Crabro vicinus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 479. ♀.

villosus Fox. Calif. (Los Angeles Co.).
Crabro villosus Fox, 1895. Amer. Ent. Soc. Trans. 22: 158. ♀.

Subgenus NORUMBEGA Pate

Pemphilis subg. *Norumbega* Pate, 1947. Notulae Nat. 185: 12.
Type: *Thyreopus argus* Packard. Monob. and orig. desig.

argus (Packard). Canada, Maine to Fla., Ohio, Ill., Mo., Iowa, Nebr., Kans., Alta., Wash. Prey: *Dolichopus* sp.; *Rhaphium vanduzeei* Curran.
Crabro argus Harris, 1835. *In* Hitchcock, Rpt. Geol. Mineral. Bot. Zool. Mass., p. 68. *Nom. nud.*
Thyreopus argus Packard, 1867. Ent. Soc. Phila. Proc. 6: 359. ♂.
Biology: Hartman, 1905. Tex. Acad. Sci. Trans. 7: 44.—Dow, 1930. Psyche 37: 181.

Crabro of Unknown Subgenus

knoxensis (Mickel), n. comb. N. Dak. (Knox).
Thyreopus (?) *knoxensis* Mickel, 1916. Amer. Ent. Soc. Trans. 42: 424. ♂.

Genus EUPLILIS Risso

Species of this genus are principally rubicolous, though occasionally nests are constructed in abandoned beetle burrows or rotten wood. The cells are provisioned with small Diptera, Psocidae, and Aphidae.

Subgenus EUPLILIS Risso

Euplilis Risso, 1826. Hist. Nat. Europ. Merid., v. 5, p. 227.
Type: (*Crabro rufiventris* Panzer) = [*Sphex*] *clavipes* (Linnaeus). Desig. by Pate, 1935.
Rhopalum Kirby, 1829. *In* Stephens, Nomencl. Brit. Ins., p. 34.
Type: (*Crabro rufiventris* Panzer) = [*Sphex*] *clavipes* (Linnaeus). Desig. by Curtis, 1837.
Physoscelus Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 804.
Type: (*Crabro rufiventris* Panzer) = [*Sphex*] *clavipes* (Linnaeus). Desig. by Ashmead, 1899.
Physoscelis (!) Westwood, 1837. Introd. Mod. Classif. Ins. 2, Gen. Synop., p. 80.

clavipes (Linnaeus). Holarctic; Maine, N. H., R. I., Md., Wash., Oreg., Calif. Prey in Europe consists of Culicidae, Chironomidae, Tipulidae, Dolichopodidae, and Psocidae.
Sphex clavipes Linnaeus, 1758. Syst. Nat., ed. 10, p. 569.
Crabro crassipes Fabricius, 1798. Sup. Ent. System., p. 270.
Crabro rufiventris Panzer, 1799. Faunae Ins. German., heft 72, fig. 12.

Subgenus CORYNOPUS Lepeletier and Brullé

Corynopus Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 802.
Type: (*Crabro tibialis* Fabricius) = *Euplilis coarctata* (Scopoli). Monob.
Dryphus Herrich-Schaeffer, 1840. Nomencl. Ent., heft. 2, p. 123.
Type: (*Crabro tibialis* Fabricius) = *Euplilis coarctata* (Scopoli). Monob.
Taxonomy: Pate, 1947. Notulae Nat. 185: 7–10.

arapaho Pate. Colo.
Euplilis (*Corynopus*) *arapaho* Pate, 1947. Notulae Nat. 185: 8. ♀ ♂.

coarctatus (Scopoli). Holarctic; Canada and U. S. in Transit. and U. Austr. Zones east of Rockies. Prey: *Orthocladonus politus* Coq.; in Europe, Chironomidae, Mycetophilidae, Empididae, and Psocidae.
Sphex coarctata Scopoli, 1763. Ent. Carn., p. 293, pl. 42, fig. 778. ♂.
Crabro tibialis Fabricius, 1798. Sup. Ent. System., p. 271. Preocc.
Rhopalum modestum Rohwer, 1908. Ent. News 19: 257. ♂.

pedicellatus (Packard). Maine, Mass., Conn., N. Y., Wis. Prey: Gnats.
Rhopalum pedicellatum Packard, 1867. Ent. Soc. Phila. Proc. 6: 380. ♀ ♂.
Rhopalum rubrocinctum Peckham and Peckham, 1895. Wis. Geol. Nat. Hist. Survey Bul. 2: 43. ♀.
Biology: Peckham and Peckham, 1895. Wis. Geol. Nat. Hist. Survey Bul. 2: 43.

rufigaster (Packard). Vt. south to Fla., Ohio, Mich., Ill., Minn., Kans., Miss., Tex.
Rhopalum rufigaster Packard, 1867. Ent. Soc. Phila. Proc. 6: 382. ♀ ♂.
Rhopalum lucidum Rohwer, 1909. Ent. News 20: 324. ♀.

Subgenus ALLIOGNATHUS Ashmead

Alliognathus Ashmead, 1899. Canad. Ent. 31: 219.
Type: *Crabro occidentalis* Fox. Monob. and orig. desig.

occidentalis carolina (Banks), n. comb., n. status. N. Y., N. C.
Rhopalum (*Alliognathus*) *carolina* Banks, 1921. Ent. Soc. Amer. Ann. 14: 17. ♀.

occidentalis occidentalis (Fox), n. status. Nev., Calif., Oreg., B. C.
Crabro occidentalis Fox. 1895. Amer. Ent. Soc. Trans. 22: 200. ♀.

Genus MONIAECERA Ashmead

Revision: Pate, 1948. Amer. Ent. Soc. Trans. 74: 41–60, 6 figs., 1 map.

Subgenus MONIAECERA Ashmead

Moniaecera Ashmead, 1899. Canad. Ent. 31: 220.
Type: *Crabro abdominalis* Fox. Orig. desig.

Only the typical subgenus occurs in North America. The species nest in soil, and one species provisions with leafhoppers.

abdominalis (Fox). Ga., Tex., Ariz. Nests in sandy soil. Prey: *Tylozygus bifidus* (Say).
Crabro abdominalis Fox, 1895. Amer. Ent. Soc. Trans. 22: 198. ♀.
Biology: Hartman, 1905. Tex. Acad. Sci. Trans. 7: 57–58.

asperata (Fox). Tex., N. Mex., Ariz., Calif.
Crabro asperatus Fox, 1895. Amer. Ent. Soc. Trans. 22: 199. ♂.

evansi Pate. Ariz. (Tucson).
Moniaecera evansi Pate, 1947. Ent. News 57: 239. ♂.

foxiana Pate. Calif.
Moniaecera (*Moniaecera*) *foxiana* Pate, 1948. Amer. Ent. Soc. Trans. 74: 49. ♀ ♂.

pinal Pate. Ariz., Calif.
Moniaecera pinal Pate, 1947. Notulae Nat. 185: 10. ♂.

Genus CROSSOCERUS Lepeletier and Brullé

Taxonomy: Pate. 1944 (1943). Lloydia 6: 267–271 (key to subg.).

Subgenus HOPLOCRABRO Thomson

Crabro subg. ***Hoplocrabro*** Thomson, 1874. Hym. Scand., v. 3, p. 277.
Type: ***Crabro quadrimaculatus*** Fabricius. Monob.
Taxonomy: Pate, 1942. Canad. Ent. 74: 177–185, 5 figs.

The European *quadrimaculatus* nests in sandy soil and provisions with nematocerous and brachycerous Diptera and Trichoptera.

angelicus (Kincaid). Nebr., Colo., Wyo., Alta., B. C., Wash., Oreg., Calif.
Crabro angelicus Kincaid, 1900. Ent. News 11: 358. "♀" = ♂.
Crabro (Hoplocrabro) vierecki H. S. Smith, 1908. Nebr. Univ. Studies 8: 401. ♀.
Crabro (Hoplocrabro) boulderensis Rohwer, 1909. Ent. News 20: 323. ♂.
Crabro (Hoplocrabro) spinibuccus Viereck, 1909. Ent. Soc. Wash. Proc. 11: 44. ♀.

Subgenus YUCHIHA Pate

Crossocerus subg. ***Yuchiha*** Pate, 1944 (1943). Lloydia 6: 272.
Type: ***Crossocerus (Yuchiha) xanthochilos*** Pate. Orig. desig.

xanthochilos Pate. Md., Va., Ga.. Ala., Mo. Nests in clay bank.
Crossocerus (Yuchiha) xanthochilos Pate, 1944 (1943). Lloydia 6: 274. ♀.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 21 (as *scutellatus*).

Subgenus CROSSOCERUS Lepeletier and Brullé

Crossocerus Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 763.
Type: (***Crabro scutatus*** Fabricius) = ***Crossocerus palmipes*** (Linnaeus). Desig. by Ashmead, 1899.
Stenocrabro Ashmead, 1899. Canad. Ent. 31: 216.
Type: ***Crabro planipes*** Fox. Orig. desig.

The species usually nest in soil though occasionally cracks in walls or abandoned beetle burrows in wood may be utilized. Prey consists of small Diptera.

chromatipus Pate. Nev., Calif.
Crabro pictipes Fox, 1895. Amer. Ent. Soc. Trans. 22: 187. ♂. Preocc.
Crossocerus (Crossocerus) chromatipus Pate, 1944 (1943). Lloydia 6: 280. N. name.

eriogoni (Rohwer), n. comb. Colo. (Boulder Co.).
Crabro (Crossoceros) (!) ***eriogoni*** Rohwer, 1908. Ent. News 19: 256. ♀.

incavus (Fox). Colo.
Crabro incavus Fox, 1895. Amer. Ent. Soc. Trans. 22: 188. ♀.

lentus (Fox). N. H. to Fla., west to Ont., N. Dak., Utah. Nests in ground. Prey: Bugs and flies.
Crabro lentus Fox, 1895. Amer. Ent. Soc. Trans. 22: 190. ♀.
Biology: Peckham and Peckham, 1905. Wasps Social and Solitary, p. 101.

maculiclypeus (Fox). Que. to Pa., west to Alta., Oreg., Utah.
Crabro maculiclypeus Fox, 1895. Amer. Ent. Soc. Trans. 22: 189. ♀ ♂.
Thyreopus (Crossocerus) daeckei Rohwer, 1910. Ent. Soc. Wash. Proc. 16: 51. ♀. N. syn.

minimus (Packard). N. B. to Va., west to Oreg. and N. Mex.
Blepharipus minimus Packard, 1867. Ent. Soc. Phila. Proc. 6: 377. ♀ ♂.
Crabro propinquus Fox, 1895. Amer. Ent. Soc. Trans. 22: 189. ♀. Preocc. N. syn.
Crossocerus (Crossocerus) pelas Pate, 1944 (1943). Lloydia 6: 280. N. name. N. syn.

planipes (Fox). Ont., N. Y., Va., Mo., Colo., Calif., B. C., Alaska. Nesting in clay bank.
Crabro planipes Fox, 1895. Amer. Ent. Soc. Trans. 22: 193. ♂.
Crabro (Crossoceros) (!) *cockerelli* Rohwer, 1908. Ent. News 19: 255. "♀" =♂, ♂. N. syn.
Biology: Rau, 1922. Acad Sci. St. Louis, Trans. 24: 21 (as *incavus*).

scutellifer (Dalla Torre), n. comb. Pa., Colo.
Crabro scutellatus Say. 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 341. ♀. Preocc.
Crabro scutellifer Dalla Torre, 1897. Cat. Hym., v. 8, p. 625. N. name.

similis (Fox), n. comb. N. Y. south to Fla.
Crabro similis Fox, 1895. Amer. Ent. Soc. Trans. 22: 191. ♀.
Stenocrabro flavitrochantericus Viereck, 1904. Amer. Ent. Soc. Trans. 30: 242. ♀. N. syn.

sulcus (Fox). Mass. to Pa., Ohio, Iowa.
Crabro sulcus Fox, 1895. Amer. Ent. Soc. Trans. 22: 187. ♀.
Stenocrabro plesius Rohwer, 1912. U. S. Natl. Mus. Proc. 41: 472. ♂. N. syn.

Subgenus SYNORHOPALUM Ashmead

Synorhopalum Ashmead, 1899. Canad. Ent. 31: 218.
Type: *Crabro decorus* Fox. Monob. and orig. desig.

decorus (Fox). N. Mex., Colo., Utah. Ariz., south into Mexico. Nests in sand or clay.
Crabro decorus Fox, 1895. Amer. Ent. Soc. Trans. 22: 200. ♀.
Biology: Cockerell, 1898. Davenport Acad. Nat. Sci. Proc. 7: 148.—H. S. Smith, 1908. Nebr. Univ., Studies 8: 395.

Subgenus ABLEPHARIPUS Perkins

Ablepharipus Perkins, 1913. Ent. Soc. London, Trans., p. 390.
Type: *Crabro podagricus* Van der Linden. Monob.

The European *podagricus* usually nests in abandoned burrows of wood-boring Coleoptera, and provisions the cells with small nematocerous and acalyptrate Diptera.

nelli (Viereck), n. comb. Conn.?, N. Y., Pa. On dead hemlock.
?Blepharipus unicus Patton, 1879. Canad. Ent. 11: 214. ♀.
Stenocrabro nelli Viereck, 1904. Amer. Ent. Soc. Trans. 30: 241. ♀.

Subgenus EPICROSSOCERUS Ashmead

Epicrossocerus Ashmead, 1899. Canad. Ent. 31: 215.
Type: *Crabro insolens* Fox. Orig. desig. and monob.

insolens (Fox). Colo. (Hayward).
Crabro insolens Fox, 1895. Amer. Ent. Soc. Trans. 22: 192. ♀.

raui (Rohwer). Mo. (St. Louis).
Epicrossocerus raui Rohwer, 1923. Ent. Soc. Wash. Proc. 25: 99. ♀.

universitatis (Rohwer). Colo. (Boulder).
Crabro (Epicrossocerus) universitatis Rohwer, 1909. Ent. News 20: 152. ♀.

Subgenus BLEPHARIPUS Lepeletier and Brullé

Blepharipus Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 728.
Type: *Blepharipus nigrita* Lepeletier and Brullé. Desig. by Ashmead, 1899.
Crabro subg. *Coelocrabro* Thomson, 1874. Hym. Scand., v. 3, p. 262.
Type: *Crabro pubescens* Shuckard. Desig. by Richards, 1935.
Dolichocrabro Ashmead, 1899. Canad. Ent. 31: 216. N. syn.
Type: *Dolichocrabro Wickhamii* Ashmead. Monob. and orig. desig.
Revision: Pate, 1944 (1943). Lloydia 6: 290–312.

The species nest in wood and provision with small Diptera, Hemiptera, and Ephemerida.

ambiguus (Dahlbom). Europe; possibly adventive in Canada and U. S., in Que., N. H., Mass., N. Y., N. J., Pa., Md., Va., N. C., Ohio, Mich., Ill., Iowa. Nests in rotten wood or sound timber. Prey: *Empoasca*, *Typhlocyba*, and *Erythroneura* of many spp. in No. Amer.

?Crossocerus gonager Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 785. ♀.

Crabro ambiguus Dahlbom, 1842. Dispos. Method. Spec. Scand. Ins. Hym., p. 14. ♀.

Blepharipus parkeri Banks, 1921. Ent. Soc. Amer. Ann. 14: 17. ♀.

Crabro (Blepharipus) davidsoni Sandhouse, 1938. Ent. Soc. Amer. Ann. 31: 1 ♀ ♂.

Biology (No. Amer. only): Davidson and Landis, 1938. Ent. Soc. Amer. Ann. 31: 5–8, 3 figs.

cinctipes (Provancher). N. B., Que. and Ont. south to N. C., Alta.

Plepharipus (!) *cinctipes* Provancher, 1882. Nat. Canad. 13: 133. ♂.

Crabro nigror (!) Fox, 1895. Amer. Ent. Soc. Trans. 22: 196. ♀.

Crabro nigrior Fox, 1896. Amer. Ent. Soc. Trans. 23: 80. Emend.

cinctitarsis (Ashmead), n. comb. Que., Alta. and B. C. south to N. Mex. and Calif.

Stenocrabro cinctitarsis Ashmead, 1901. Psyche 9: 185. ♂.

Blepharipus columbiae Bradley, 1906. Canad. Ent. 36: 380. ♀. N. syn.

fergusoni Pate. Colo., Oreg. Reared from *Sambucus glauca* stem, the cocoon bearing fragments of Stratiomyidae (?).

Crossocerus (Blepharipus) fergusoni Pate, 1944 (1943). Lloydia 6: 307. ♂.

harringtonii (Fox). Ont. to Va., west to N. Mex., Alta.

?Crabro niger Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 419. ♀. Preocc.

Crabro Harringtonii Fox, 1895. Amer. Ent. Soc. Trans. 22: 195. ♀.

?Crabro servus Dalla Torre, 1897. Cat. Hym., v. 8, p. 626. N. name.

impressifrons (Smith). Transit. and U. Austr. Zones east of 100th meridian.

Crabro tibialis Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 340. ♀. Preocc.

Crabro pusillus Harris, 1835. *In* Hitchcock, Rpt. Geol. Mineral. Bot. Zool. Mass., p. 68. *Nom. nud.* N. syn.

Crabro impressifrons Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 417. N. name.

Blepharipus Harrisii Packard, 1867. Ent. Soc. Phila. Proc. 6: 376. ♂. N. syn.

Crabro (Blepharipus) tridentatus Rohwer, 1909. Ent. News 20: 150. ♀ ♂. Preocc.

melanius (Rohwer), n. comb. Alta., Colo., Ariz., south into Mexico.

Thyreopus (Blepharipus) melanius Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 565. ♀ ♂.

Crossocerus (Blepharipus) stricklandi Pate, 1944 (1943). Lloydia 6: 301. ♂. N. syn.

nigricornis (Provancher). Transcont. in Transit. and U. Austr. Zones. Nests in elder stems. Prey: Empididae, Ceratopogonidae, Dolichopodidae, Muscidae, Anthomyidae, and acalyptrate Diptera.

Blepharipus nigricornis Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 294. ♂.

Biology: Pate, 1944 (1943). Lloydia 6: 306–307.

stictochilos Pate. N. Y., N. J., Va., N. C., Ga.

Crossocerus (Blepharipus) stictochilos Pate, 1944 (1943). Lloydia 6: 304. ♀ ♂.

stygius (Mickel). Nebr. (Sioux Co.).

Thyreopus (subgenus?) *stygius* Mickel, 1916. Amer. Ent. Soc. Trans. 42: 422. ♀.

tarsalis (Fox). Transcont. in Transit. and U. Austr. Zones.

Crabro tarsalis Fox, 1895. Amer. Ent. Soc. Trans. 22: 193. ♂.

utensis (Mickel). Colo. (Ute Creek).
Thyreopus (Blepharipus) utensis Mickel, 1916. Amer. Ent. Soc. Trans. 42: 421. ♀.

wickhamii (Ashmead), n. comb. Transcont. in Alaska, Canada, U. S. in Transit. and Canad. Zones. Nesting in hole in shingle. Prey: *Empoasca* (*Kybos*) sp., possibly *obtusa* Walsh or *patula* DeL.
Crabro ater Cresson, 1865. Ent. Soc. Phila. Proc. 4: 477. ♀. Preocc.
Dolichocrabro Wickhamii Ashmead, 1899. Canad. Ent. 31: 215. ♂. N. syn.
Crossocerus (Blepharipus) pammelas Pate, 1944 (1943). Lloydia 6: 299. N. name.
Biology: Steyskal, 1944. Brooklyn Ent. Soc. Bul. 39: 170.

Subgenus NOTHOCRABRO Pate

Crossocerus subg. *Nothocrabro* Pate, 1944 (1943). Lloydia 6: 314.
Type: *Crabro nitidiventris* Fox. Monob. and orig. desig.

nitidiventris (Fox). Conn. to Ga.; Ill., Mo., Tex.
Crabro nitidiventris Fox, 1892. Ent. News 3: 9. ♀.

Subgenus STICTOPTILA Pate

Crossocerus subg. *Stictoptila* Pate, 1944 (1943). Lloydia 6: 315.
Type: *Crabro confertus* Fox. Orig. desig.

albertus (Carter). Alta. (Waterton Lakes).
Crabro albertus Carter, 1925. Canad. Ent. 57: 135. ♂.

canonicola (Viereck). Ariz. (Oak Creek Canyon).
Crabro canonicola Viereck, 1908. Amer. Ent. Soc. Trans. 33: 402. ♀.

confertus (Fox). N. Y., Colo., Nev., Mont., B. C., Wash., Oreg., Calif. Prey: *Pales ferrugineus* (F.).
Crabro confertus Fox, 1895. Amer. Ent. Soc. Trans. 22: 181. ♀ ♂.
Crabro ventralis Fox, 1895. Amer. Ent. Soc. Trans. 22: 183. ♀. N. syn.

maculipennis (Smith). Hudson Bay, Que. to Va., Mich., Wis., Ill., Minn. Nests in log and old apple tree. Prey: *Pales tenuis* (Loew).
Blepharipus maculatus Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 730. ♀. Misdet. of *Crabro maculatus* Fabricius, *teste* Smith.
Crabro pictus Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 417, No. 127. N. name. Preocc.
Crabro maculipennis Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 147, No. 128. N. name.
Biology: Erikson, 1940. Brooklyn Ent. Soc. Bul. 35: 172.

Genus ENOPLOLINDENIUS Rohwer

Revision: Pate, 1942. Rev. de Ent. 13: 386–421.

Subgenus ISKUTANA Pate

Enoplolindenius subg. *Iskutana* Pate, 1942. Rev. de Ent. 13: 390.
Type: (*Enoplolindenius (Iskutana) georgia* Pate)=[*Lindenius*] *robertsoni* (Rohwer). Orig. desig.

robertsoni (Rohwer), n. comb. Ga., La., Tex., Kans., Nebr., Iowa, Ill.
Lindenius robertsoni Rohwer, 1920. Ent. Soc. Wash. Proc. 22: 57. ♂.
Enoplolindenius (Iskutana) georgia Pate, 1942. Rev. de Ent. 13: 393. ♂. N. syn.
Enoplolindenius (Iskutana) ponca Pate, 1942. Rev. de Ent. 13: 395. ♀. N. syn.

Subgenus ENOPLOLINDENIUS Rohwer

Lindenius subg. *Enoplolindenius* Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 562.
Type: *Lindenius (Enoplolindenius) clypeatus* Rohwer. Monob. and orig. desig.

clypeatus (Rohwer). Tex. (Brownsville).
Lindenius (*Enoplolindenius*) *clypeatus* Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 562. ♂.

Genus ECTEMNIUS Dahlbom

Subgenus PROTOTHYREOPUS Ashmead

Prototthyreopus Ashmead, 1899. Canad. Ent. 31: 170.
Type: *Crabro rufifemur* Packard. Orig. desig.

dilectus bigeminus (Patton). N. H. to Va.; Mich.
Crabro bigeminus Patton, 1879. Canad. Ent. 11: 213. ♀ ♂.

dilectus dilectus (Cresson). Transit. and U. Austr. Zones, chiefly west of Miss. River and east of Sierra Nevada and Cascade ranges.
Crabro dilectus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 478. ♀ ♂.
Crabro (*Prototthyreopus*) *megacephalus* Rohwer, 1908. Ent. News 19: 249. ♀. Preocc.
Crabro (*Prototthyreopus*) *dilectiformis* Rohwer, 1909. Ent. News 20: 146. ♀.
Crabro (*Prototthyreopus*) *crassiceps* Mickel, 1916. Amer. Ent. Soc. Trans. 42: 425. ♀.
Taxonomy: Pate, 1946. Notulae Nat. 171: 2.

rufifemur (Packard). Transit. and U. Austr. Zones east of Rockies.
Crabro rufifemur Packard, 1866. Ent. Soc. Phila. Proc. 6: 81. ♀ ♂.

Subgenus CLYTOCHRYSUS Morawitz

Crabro subg. *Clytochrysus* Morawitz, 1864. Acad. Imp. Sci. St. Petersburg Bul. 7: 454.
Type: (*Crabro chrysostomus* Lepeletier and Brullé)=[*Crabro*] *comptus* (Lepeletier and Brullé). Desig. by Richards, 1935.

comptus (Lepeletier and Brullé). Holarctic; in No. Amer., transcont. in Canad., Transit. and U. Austr. Zones. Nests in rotten wood. Prey (in Europe): Principally Syrphidae, occasionally Anthomyidae.
?Crabro fossorius Panzer, 1799. Faunae Ins. German., heft 72, pl. 11. ♀. Preocc.
?Crabro lapidarius Panzer, 1804. Faunae Ins. German., heft 90, pl. 12. ♂.
Crabro chrysostomus Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 704. ♀. Preocc.
Crabro comptus Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 705. ♂.
Crabro xylurgus Shuckard, 1837. Essay on Indig. Fossor. Hym., p. 139. ♀ ♂.
Crabro interstinctus Smith, 1851. Zoologist 9: cxxvi. ♂.
Crabro obscurus Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 418. ♀ ♂.
Crabro gracilissimus Packard, 1866. Ent. Soc. Phila. Proc. 6: 78. ♂.
Crabro denticulatus Packard, 1866. Ent. Soc. Phila. Proc. 6: 97. ♂.
Crabro effossus Packard, 1866. Ent. Soc. Phila. Proc. 6: 104. ♂.
Taxonomy: Pate, 1946. Notulae Nat. 171: 2–3.
Biology (No. Amer. only): Barth, 1907. Wis. Nat. Hist. Soc. Bul. 5: 252.

nigrifrons (Cresson). Holarctic; in No. Amer., transcont. chiefly in Transit. Zone. Prey: *Syrphus ribesii* (L.).
Crabro nigrifrons Cresson, 1865. Ent. Soc. Phila. Proc. 4: 482. ♂.
Crabro contiguus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 484. ♀.
Crabro septentrionalis Packard, 1866. Ent. Soc. Phila. Proc. 6: 110. ♀.
Crabro (*Solenius*) *planifrons* Thomson, 1870. Opusc. Ent., v. 2, p. 173. ♀ ♂.
Crabro (*Clytochrysus*) *longipalpis* Verhoeff, 1892. Ent. Nachr. 18: 70. ♀.
Taxonomy: Pate, 1946. Notulae Nat. 171: 2.
Biology: Krombein, 1936. Ent. News 47: 95.

papagorum (Viereck), n. comb. Ariz. (Oak Creek Canyon).
Crabro papagorum Viereck, 1908. Amer. Ent. Soc. Trans. 33: 401. ♀.

yosemite Pate. Calif. (Mariposa Co.).
Ectemnius (*Clytochrysus*) *yosemite* Pate, 1946. Notulae Nat. 171: 3. ♀.

Subgenus METACRABRO Ashmead

Metacrabro Ashmead, 1899. Canad. Ent. 31: 169.
Type: (*Crabro Kollari* Dahlbom)=*Ectemnius* (*Metacrabro*) *lituratus* (Panzer). Orig. desig. and monob.

4-cinctus (Fabricius). Europe; possibly adventive in No. Amer.; in Ont., Que., Conn., N. Y., N. J., Pa., Md., Ill. In Europe nests in firm or decayed trunks, lumber. Prey: A wide variety of Diptera.
Crabro 4-cinctus Fabricius, 1787. Mantissa Insectorum, v. 1, p. 295.
Crabro cephalotes Olivier, 1791. Encycl. Meth. Ins., v. 6, p. 513.
Crabro striatus Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 707. ♀ ♂.
Crabro ornatus Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 709. ♀.
Blepharipus striatulus Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 737. ♂.
Ceratocolus striatus Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 744. ♂.
Crabro Lindenius Shuckard, 1837. Essay on Indig. Fossor. Hym., p. 143. ♀ ♂.
Crabro Shuckardi Dahlbom, 1840. Exam. Crabron. Scand., p. 98. ♀ ♂.
Crabro interruptus Dahlbom, 1845. Hym. Europaea, v. 1, p. 418. ♀ ♂. N. name for *Shuckardi*.
Crabro Fargeii Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 410. N. name for *Ceratocolus striatus*.
?Crabro frigidus Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 419. ♀.
Crabro aciculatus Provancher, 1882. Nat. Canad. 13: 108. ♀ ♂.
Crabro (*Solenius*) *ruthenicus* Morawitz, 1892. Soc. Ent. Rossica Horae 26: 174. ♀.
Taxonomy: Pate, 1945. Brooklyn Ent. Soc. Bul. 40: 41–43.

Subgenus LOPHOCRABRO Rohwer

Solenius subg. *Lophocrabro* Rohwer, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 667.
Type: *Crabro singularis* Smith. Monob. and orig. desig.

oblongus (Packard), n. comb. Conn.
Crabro oblongus Packard, 1866. Ent. Soc. Phila. Proc. 6: 88. ♀.

singularis (Smith). Chiefly Transit. Zone in Canada and U. S. east of Cascade and Sierra Nevada ranges. Prey: *Tubifera arbustorum* (L.).
Crabro singularis Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 417. ♂.
Crabro quadrangularis Packard, 1866. Ent. Soc. Phila. Proc. 6: 85. ♀.
Crabro 14-maculatus Packard, 1866. Ent. Soc. Phila. Proc. 6: 87. ♂.

trapezoideus (Packard), n. comb. Ill.
Crabro trapezoideus Packard, 1866. Ent. Soc. Phila. Proc. 6: 89. ♂.

Subgenus HYPOCRABRO Ashmead

Hypocrabro Ashmead, 1899. Canad. Ent. 31: 168.
Type: *Crabro 10-maculatus* Say. Orig. desig.
Pseudocrabro Ashmead, 1899. Canad. Ent. 31: 169.
Type: *Crabro chrysargyrus* Lepeletier and Brullé. Orig. desig.
Xestocrabro Ashmead, 1899. Canad. Ent. 31: 169.
Type: (*Crabro 6-maculatus* Say)=[*Crabro*] *continuus* (Fabricius). Orig. desig.
Xylocrabro Ashmead, 1899. Canad. Ent. 31: 169.
Type: *Crabro stirpicola* Packard. Orig. desig. and monob.

alpheus Pate. Calif., Wash., Utah.
Ectemnius (*Hypocrabro*) *alpheus* Pate, 1946. Notulae Nat. 171: 5. ♀ ♂.

besseyae (Rohwer), n. comb. Calif., Colo., Utah, N. Mex.
Crabro (*Xylocrabro?*) *besseyae* Rohwer, 1908. Ent. News 19: 419. ♀.

centralis (Cameron), n. comb. Tex., N. Mex., Ariz. south to Panama.
Crabro centralis Cameron, 1891. Biol. Cent.-Amer., Hym., v. 2, p. 146. ♀.

chrysargyrus (Lepeletier and Brullé). Transcont. in Transit. and Austr. Zones. Nests in logs. Prey: *Musca domestica* L.

Crabro chrysargyrus Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3; 711. ♀.

Crabro arcuatus Say, 1837. Boston Jour. Nat. Hist. 1: 377. ♀.

Crabro chrysarginus (!) Lepeletier, 1845. Hist. Nat. Ins. Hym., v. 3, p. 114. ♀.

Crabro Packardii Cresson, 1865. Ent. Soc. Phila. Proc. 4: 477. ♀ ♂.

Crabro honestus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 485. "♀"=♂.

Crabro villosifrons Packard, 1866. Ent. Soc. Phila. Proc. 6: 84. ♀.

Crabro (subgenus?) ***nokomis*** Rohwer, 1908. Ent. News 19: 251. ♀.

Solenius (Hypocrabro) nokonis (!) Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 242.

Taxonomy: Pate, 1946. Notulae Nat. 171: 9–10.

continuus (Fabricius). Holarctic; in No. Amer., transcont. in Canad., Transit. and U. Austr. Zones. Nests in logs. Prey: Muscoid Diptera (Syrphidae also in Europe).

Crabro continuus Fabricius, 1805. Systema Piezatorum, p. 312.

Crabro 6-maculatus Say, 1823. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 341. ♀. Preocc.

Crabro sulphureipes Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 415. ♂.

Crabro validus De Stefani, 1884. Nat. Sicil., v. 3, p. 218. ♂.

Xylocrabro slossonae Ashmead, 1902. Ent. News 13: 5. ♂. *Nom. nud.*

Crabro sayi Cockerell, 1910. Entomologist 43: 61. N. name.

Crabro bisexmaculatus Viereck, 1910 (1909). *In* Smith, N. J. State Mus. Ann. Rpt. 1909, p. 681. N. name.

Solenius (Hypocrabro) giffardi Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 242. ♀ ♂.

Taxonomy: Pate, 1946. Notulae Nat. 171: 10.

Biology (No. Amer. only): Peckham and Peckham, 1905. Wasps Social and Solitary, pp. 97–101, 1 fig.—Barth, 1907. Wis. Nat. Hist. Soc. Bul. 5: 252.—Reinhard, 1929. The Witchery of Wasps, pp. 228–231, 4 figs.

10-maculatus 10-maculatus (Say). U. and L. Austr. Zones east of Rockies, south into Mexico.

Crabro 10-maculatus Say, 1823. West. Quart. Rptr., v. 2, p. 78.

Crabro collinus Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 420. ♂.

Crabro aurifrons Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 420. ♀.

Crabro (Hoplocrabro) novanus Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 564. ♀ ♂.

Taxonomy: Pate, 1946. Notulae Nat. 171: 8.

10-maculatus tequesta Pate. C. and south. Fla.

Ectemnius (Hypocrabro) 10-maculatus tequesta Pate, 1946. Notulae Nat. 171: 9. ♀ ♂.

excavatus banksi (Rohwer). Md., Va., N. C., S. C., Ga., Tex., Mo., Kans., Ind. Reared from rotten log.

Crabro banksi Rohwer, 1909. Ent. News 20: 147. ♀.

excavatus excavatus (Fox). Fla.

Crabro excavatus Fox, 1892. Ent. News 3: 10. ♀ ♂ (in part misdet.).

Taxonomy: Pate, 1946. Notulae Nat. 171: 13–14.

imbutus (Fox). Colo., Ariz., Baja Calif.

Crabro imbutus Fox, 1894. Calif. Acad. Sci. Proc. (2) 4: 108. ♀.

imbutus var. **ferrugineipes** (Rohwer). Colo., N. Mex., Ariz., south into Mexico.

Crabro (Solenius?) ferrugineipes Rohwer, 1908. Ent. News 19: 250. ♂.

Taxonomy: Rohwer, 1917. U. S. Natl. Mus. Proc. 53: 242.

odyneroides (Cresson). Colo., N. Mex., Ariz., south into Mexico.

Crabro odyneroides Cresson, 1865. Ent. Soc. Phila. Proc. 4: 481. ♂.

paucimaculatus (Packard), n. comb. N. Y. to Fla.; Ill., Tex. Reared from *Hibiscus* stem.

Crabro paucimaculatus Packard, 1866. Ent. Soc. Phila. Proc. 6: 90. ♀.

satan Pate. N. Mex. (Satan Pass, McKinley Co.).

Ectemnius (Hypocrabro) satan Pate, 1946. Notulae Nat. 171: 10. ♂.

scaber (Lepeletier and Brullé), n. comb. N. J. to Fla., La., Tex., Okla. Boring in pine.
Solenius scaber Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 715. ♂.

spiniferus (Fox), n. comb. Colo., Ariz., Nev., Wash., Oreg., Calif. Nests in twigs.
Crabro spiniferus Fox, 1895. Amer. Ent. Soc. Trans. 22: 148. ♀ ♂.
Solenius (Pseudocrabro) conspiciendus Mickel, 1918 (1917). Nebr. Univ., Studies 17: 324. ♀ ♂. N. syn.

stirpicola (Packard). Canada and U. S. in Transit. and U. Austr. Zones east of 100th meridian. Nests in twigs or lumber. Prey: Small Diptera, principally acalyptrates.
Crabro stirpicola Packard, 1866. Ent. Soc. Phila. Proc. 6: 111. ♀ ♂.
Biology: Peckham and Peckham, 1898. Wis. Geol. Nat. Hist. Survey Bul. 2: 46–52, pl. 1, fig. 5, pl. 11, figs. 6, 7.—Rau and Rau, 1918. Wasp Studies Afield, pp. 90–94, figs. 21, 22.—Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 20–21. —Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 381–387, fig. 50.

texanus ais Pate. Fla.
Ectemnius (Hypocrabro) texanus ais Pate, 1946. Notulae Nat. 171: 12. ♀ ♂.

texanus texanus (Cresson). N. Y. to Fla.; La., Ala., Tex., Mo., Kans., Iowa, Ill. Nests in twigs.
Crabro texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 227. ♀.
Taxonomy: Pate, 1946. Notulae Nat. 171: 12.

trifasciatus (Say), n. comb. Chiefly Transit. Zone of Canada and U. S. east of Cascade and Sierra Nevada ranges.
Crabro trifasciatus Say, 1823. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 342.

Subgenus ECTEMNIUS Dahlbom

Crabro subg. *Ectemnius* Dahlbom, 1845. Hym. Europaea, v. 1, p. 389.
Type: *Crabro guttatus* Van der Linden. Desig. by Ashmead, 1899.
Crabro subg. *Mesocrabro* Verhoeff, 1892. Ent. Nachr. 18: 70.
Type: *Crabro guttatus* Van der Linden. Desig. by Pate, 1937.

atriceps (Cresson). Colo., Wash.
Crabro atriceps Cresson, 1865. Ent. Soc. Phila. Proc. 4: 483. ♀.
Crabro foxii Kincaid, 1900. Ent. News 11: 356. ♂.
Taxonomy: Pate, 1946. Notulae Nat. 171: 14.

brunneipes (Packard). Ont. and Maine south to Va. and Tenn.; Mo., Kans., Colo., Alta., Oreg. Nests in logs.
Crabro brunneipes Packard, 1866. Ent. Soc. Phila. Proc. 6: 102. ♂.
Biology: Barth, 1907. Wis. Nat. Hist. Soc. Bul. 5: 252.

corrugatus (Packard). Canad. and Transit. Zones in Alaska, Canada, U. S.
Crabro pauper Packard, 1866. Ent. Soc. Phila. Proc. 6: 95. ♂.
Crabro corrugatus Packard, 1866. Ent. Soc. Phila. Proc. 6: 107. ♀.
Crabro parvulus Packard, 1866. Ent. Soc. Phila. Proc. 6: 108. ♀.
Crabro (Cuphopterus) operus Rohwer, 1908. Ent. News 19: 247. ♀.
Crabro (Xestocrabro) drymocallidis Rohwer, 1908. Ent. News 19: 255. ♂.
Taxonomy: Pate, 1946. Notulae Nat. 171: 14.

dives (Lepeletier and Brullé). Holarctic; in No. Amer. transcont. in Canad. and Transit. Zones of Canada and U. S. Nests in logs, timber and stems. Prey: Muscoid Diptera.
Solenius dives Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 716. ♀ ♂.
Solenius alatulus Dahlbom, 1840. Exam. Crabron. Scand., p. 85. ♀ ♂.
?Crabro pictipes Herrich-Schaeffer, 1841. Faunae Ins. German., heft 181, pl. 5.
Solenius 8-notatus Dahlbom, 1845. Hym. Europaea, v. 1, p. 388. ♀.
Crabro auratus Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 398. N. name for *dives*.
Crabro (Ectemnius) pictus Schenck, 1857. Nassau. Ver. f. Naturk. Jahrb. 13: 70. ♀. Preocc.
Crabro montanus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 484. ♀. Preocc.

Crabro cristatus Packard, 1866. Ent. Soc. Phila. Proc. 6: 101. ♂.
Crabro cubiceps Packard, 1866. Ent. Soc. Phila. Proc. 6: 105. ♀.
Crabro dives Schencki Cockerell, 1908. Entomologist 40: 51. N. name for *pictus*.
Crabro (Xestocrabro) heraclei Rohwer, 1908. Ent. News 19: 253. ♂.
Crabro montivagans Strand, 1917. Archiv. f. Naturgesch. 82: 98. N. name for *montanus*.
Taxonomy: Pate, 1945. Brooklyn Ent. Soc. Bul. 40: 38–40.—Pate, 1946. Notulae Nat. 171: 14.
Biology (No. Amer. only): Barth, 1907. Wis. Nat. Hist. Soc. Bul. 5: 252.

proletarius (Mickel), n. comb. N. Dak. (Lisbon).
Crabro (Xestocrabro) proletarius Mickel, 1916. Amer. Ent. Soc. Trans. 42: 426. ♂.

Genus LESTICA Billberg

Taxonomy: Pate, 1947. Notulae Nat. 185: 13 (key to subg.).

Subgenus LESTICA Billberg

Lestica Billberg, 1820. Enum. Ins., p. 107.
Type: ***Crabro subterraneus*** Fabricius. Desig. by Rohwer, 1911.
Hypothyreus Ashmead, 1899. Canad. Ent. 31: 171.
Type: ***Crabro subterraneus*** Fabricius. Orig. desig. and monob.

The typical subgenus does not occur in North America.

Subgenus SOLENIUS Lepeletier and Brullé

Solenius Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 713.
Type: ***Solenius interruptus*** Lepeletier and Brullé. Desig. by Ashmead, 1899.

cinctella (Fox), n. comb. Nev.
Crabro cinctellus Fox, 1895. Amer. Ent. Soc. Trans. 22: 136. ♀.

cinctibella (Viereck), n. comb. Ariz. (Oak Creek Canyon).
Crabro cinctibellus Viereck, 1908. Amer. Ent. Soc. Trans. 33: 401. ♀ ♂.

interrupta bella (Cresson). B. C., Oreg., Idaho, Utah, Colo., south into west. Mexico. Nests in logs.
Crabro bellus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 481. ♀.
Crabro atrifrons Cresson, 1865. Ent. Soc. Phila. Proc. 4: 483. ♂.
Crabro opwana Rohwer, 1908. Ent. News 19: 248. ♂.
Crabro (Solenius) townsendi Rohwer, 1911. U. S. Natl. Mus. Proc. 40: 563 ♀.

interrupta interrupta (Lepeletier and Brullé). Transit. and Austr. Zones in Canada and U. S. east of Rocky Mts. Nests in logs. Prey: Pterophoridae.
Solenius interruptus Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 716. ♀.
Crabro confluentus Say, 1837. Boston Jour. Nat. Hist. 1: 376. ♀ ♂.
Crabro dubius Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 417. N. name for *interruptus*.
Crabro confluens (!) Leconte, 1859. Ent. of No. Amer. (Thos. Say), p. 758.
Taxonomy: Pate, 1947. Notulae Nat. 185: 13–14.
Biology: Peckham and Peckham, 1905. Wasps Social and Solitary, pp. 102–105, fig.—Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 378.

planaris (Mickel), n. comb. Nebr. (Sioux Co.).
Crabro (Solenius) planaris Mickel, 1916. Amer. Ent. Soc. Trans. 42: 427. ♂.

producticollis (Packard), n. comb. Transcont. in Canada and U. S. in Transit. and U. Austr. Zones.
Crabro producticollis Packard, 1866. Ent. Soc. Phila. Proc. 6: 76. ♂.
Crabro 4-punctatus Provancher, 1883. Faune Ent. Canad., Hym., p. 653. ♂.
Crabro 4-maculatus Provancher, 1883. Faune Ent. Canad., Hym., p. 654. ♀. Typ. err. ?. Preocc.

seamansi (Carter), n. comb. Alta. (Waterton Lakes).
Solenius seamansi Carter, 1925. Canad. Ent. 57: 135. ♂.

Crabronini of Unknown Generic Position

maculatus Fabricius. "Am. bor."
Crabro maculatus Fabricius, 1781. Spec. Ins., v. 1, p. 470.

rufipes Lepeletier and Brullé. "Carolina."
Ceratocolus rufipes Lepeletier and Brullé, 1835. Soc. Ent. France Ann. 3: 741. ♀.

rugoso-punctatus Provancher. Ontario (Ottawa).
Thyreopus rugoso-punctatus Provancher, 1883. Faune Ent. Canada, Hym., p. 664. ♀. A secondary homonym in *Crabro*.
Crabro rugulosopunctatus Dalla Torre, 1897. Cat. Hym., v. 8, p. 624. N. name.

unicus Patton. Conn. (New Haven). (See under ***Crossocerus* (*Ablepharipus*) *nelli*** (Viereck).)

Tribe OXYBELINI[62]

Genus BELOMICRUS A. Costa

Belomicrus A. Costa, 1871 (1866). R. Univ. Napoli Mus. Zool. Ann. 6: 80.
Type: ***Belomicrus italicus*** A. Costa. Monob.
Oxybeloides Radoszkowski *in* Fedchenko, 1877. Reise in Turkestan, Imp. Obschch. Moskva Izv. 26 (1): 68.
Type: ***Oxybeloides fasciatus*** Radoszkowski. Monob.
Oxybelomorpha Brauns *in* Kohl, 1896. K. K. Naturhist. Hofmus. Ann. 11: 475.
Type: ***Oxybelomorpha Kohlii*** Brauns. Monob.
Belomicrus subg. ***Nototis*** Arnold, 1927. Transvaal Mus. Ann. 12: 64.
Type: ***Belomicrus* (*Nototis*) *bicornutus*** Arnold. Monob.
Belomicrus subg. ***Pseudoxybelus*** Gussakovskij, 1933. Akad. Nauk S. S. S. R., Zool. Inst. Trudy 1: 286.
Type: ***Belomicrus* (*Pseudoxybelus*) *persa*** Gussakovskij. Monob.
Revision: Pate, 1940. Amer. Ent. Soc. Trans. 66: 11–96, 209–257.

One species of this genus is known to stock its nests with beetles.

apache Pate. N. Mex.
Belomicrus apache Pate, 1940. Amer. Ent. Soc. Trans. 66: 15. ♀.

bridwelli Pate. Va.
Belomicrus bridwelli Pate, 1940. Amer. Ent. Soc. Trans. 66: 93. ♂ ♀.

cahuilla Pate. Calif.
Belomicrus cahuilla Pate, 1940. Amer. Ent. Soc. Trans. 66: 39. ♂.

cladothricis cladothricis (Cockerell). Calif., Nev., Ariz., N. Mex., Tex.
Oxybelus cladothricis Cockerell, 1895. Canad. Ent. 27: 309. ♂ ♀.

cladothricis eriogoni Pate. Calif., Idaho.
Belomicrus cladothricis eriogoni Pate, 1940. Amer. Ent. Soc. Trans. 66: 70. ♂ ♀.

cladothricis prosopidis Pate. Calif.
Belomicrus cladothricis prosopidis Pate, 1940. Amer. Ent. Soc. Trans. 66: 72. ♂ ♀.

coloratus Baker. Idaho, Nev.
Belomicrus colorata Baker, 1909. Pomona Col. Jour. Ent. 1: 29. ♀.

cookii Baker. Calif.
Belomicrus Cookii Baker, 1909. Pomona Col. Jour. Ent. 1: 29. ♂ ♀.

cucamonga Pate. Wash., Calif.
Belomicrus cucamonga Pate, 1940. Amer. Ent. Soc. Trans. 66: 76. ♀.

forbesii forbesii (Robertson). Colo. north to Man. and west to B. C. and Calif
Oxybelus Forbesii Robertson, 1889. Amer. Ent. Soc. Trans. 16: 85. ♂.

[62] By B. D. Burks, U. S. Bureau of Entomology and Plant Quarantine.

Oxybelus (*Oxybeloides*) *columbianus* Kohl, 1892. K. K. Naturhist. Hofmus. Ann. 7: 208. ♂ ♀.
Belomicrus larimerensis Rohwer, 1908. Ent. News 19: 417. ♀.

forbesii penuti Pate. Calif.
Belomicrus forbesii penuti Pate, 1940. Amer. Ent. Soc. Trans. 66: 27. ♂ ♀.

franciscus Pate. Calif. Prey: *Trichochrous antennatus* Mots.
Belomicrus franciscus Pate, 1931. Ent. News 42: 77. ♂ ♀.
Biology: Williams, 1936. Pan-Pacific Ent. 12: 3–6.

istam Pate. Calif.
Belomicrus istam Pate, 1940. Amer. Ent. Soc. Trans. 66: 81. ♂ ♀.

jurumpa Pate. Calif.
Belomicrus jurumpa Pate, 1940. Amer. Ent. Soc. Trans. 66: 53. ♂ ♀.

maricopa Pate. Ariz.
Belomicrus maricopa Pate, 1947. Ent. Soc. Wash. Proc. 49: 54. ♀.

mescalero Pate. Calif., N. Mex.
Belomicrus mescalero Pate, 1940. Amer. Ent. Soc. Trans. 66: 87. ♀.

minidoka Pate. Idaho.
Belomicrus minidoka Pate, 1940. Amer. Ent. Soc. Trans. 66: 79. ♂.

pachappa Pate. Calif.
Belomicrus pachappa Pate, 1940. Amer. Ent. Soc. Trans. 66: 73. ♀.

potawatomi Pate. Iowa.
Belomicrus potawatomi Pate, 1947. Ent. Soc. Wash. Proc. 49: 57. ♀.

quemaya Pate. Calif.
Belomicrus quemaya Pate, 1940. Amer. Ent. Soc. Trans. 66: 47. ♂.

querecho Pate. N. Mex.
Belomicrus querecho Pate, 1940. Amer. Ent. Soc. Trans. 66: 36. ♂.

sechi Pate. Calif.
Belomicrus sechi Pate, 1940. Amer. Ent. Soc. Trans. 66: 60. ♂.

serrano mono Pate. Calif.
Belomicrus serrano mono Pate, 1940. Amer. Ent. Soc. Trans. 66: 46. ♀.

serrano serrano Pate. Calif.
Belomicrus serrano serrano Pate, 1940. Amer. Ent. Soc. Trans. 66: 42. ♂ ♀.

timberlakei Pate. Calif.
Belomicrus timberlakei Pate, 1940. Amer. Ent. Soc. Trans. 66: 91. ♂.

tuktum Pate. Calif.
Belomicrus tuktum Pate, 1940. Amer. Ent. Soc. Trans. 66: 84. ♂.

vanyume Pate. Calif.
Belomicrus vanyume Pate, 1940. Amer. Ent. Soc. Trans. 66: 17. ♀.

vierecki Pate. Calif., N. Mex.
Belomicrus vierecki Pate, 1940. Amer. Ent. Soc. Trans. 66: 56. ♂ ♀.

Genus ENCHEMICRUM Pate

Enchemicrum Pate, 1929. Ent. News 40: 219.
Type: *Enchemicrum australe* Pate. Orig. desig.
Revision: Pate, 1940. Amer. Ent. Soc. Trans. 66: 257–264.

australe Pate. Ga. north to Ill. and west to Ariz.
Enchemicrum australe Pate, 1929. Ent. News 40: 220. ♂ ♀.

Genus OXYBELUS Latreille

Oxybelus Latreille, 1796. Précis Caract. Gén. Ins., p. 129. No species.
Type: *Vespa uniglumis* Linnaeus. First included species, Latreille 1802.
Notoglossa Dahlbom, 1845. Hym. Europaea, v. 1, p. 514.
Type: *Notoglossa sagittata* Dahlbom. Monob.

Alepidaspis A. Costa, 1882. Accad. delle Sci. Fis. e Mat. Napoli, Atti 9 (11): 35.
Type: ***Alepidaspis diphyllus*** A. Costa. Monob.
Anoxybelus Kohl, 1923. Konowia 2: 274.
Type: ***Oxybelus (Anoxybelus) Maidlii*** Kohl. Monob.
Gonioxybelus Minkiewicz, 1934 (1933). Polski Pismo Ent. 12: 251.
Type: ***Oxybelus nigripes*** Olivier. Desig. by Pate, 1937.
Orthoxybelus Minkiewicz, 1934 (1933). Polski Pismo Ent. 12: 251.
Type: ***Vespa uniglumis*** Linnaeus. Desig. by Pate, 1937.
Revision: Robertson, 1889. Amer. Ent. Soc. Trans. 16: 77–85.—Mickel, 1918 (1917). Nebr. Univ. Studies 17: 44–51 [Nebraska species].

These wasps prey on flies, principally those belonging to the Orthorrhapha. The captured flies are carried impaled on the sting.

abdominalis Baker. Iowa, N. Dak., Alta., Colo., N. Mex.
Oxybelus abdominalis Baker, 1896. Ent. News 7: 158. ♂.

acutus Baker. Colo.
Oxybelus acutus Baker, 1896. Ent. News 7: 61. ♀.

albomaculata (Mickel) n. comb. Nebr.
Notoglossa albomaculata Mickel, 1918 (1917). Nebr. Univ. Studies 17: 320. ♂.

albosignatus H. S. Smith. Nebr.
Oxybelus albosignatus H. S. Smith, 1908. Nebr. Univ. Studies 8: 407. ♀.

americana (Robertson). Ill., Tex. Prey: Very small flies.
Notoglossa americana Robertson, 1901. Amer. Ent. Soc. Trans. 27: 204. ♂ ♀.
Biology: Hartman, 1905. Tex. Univ. Bul. 65: 29–31.

apicatus H. S. Smith. Nebr.
Oxybelus apicatus H. S. Smith, 1908. Nebr. Univ. Studies 8: 409. ♂.

argentarius Mickel. Nebr.
Oxybelus argentarius Mickel, 1916. Amer. Ent. Soc. Trans. 42: 431. ♀.

bipunctatus Olivier. Europe; Maine, N. Y., D. C., Va. Prey: *Hylemya cilicrura* (Rond.) and *Lonchaea nudifemorata* Mall. recorded in the U. S.; nine species of flies recorded in Europe.
Oxybelus bipunctatus Olivier, 1811. Encycl. Méth. Ins., v. 8, p. 597.
Oxybelus nigroaeneus Shuckard, 1837. Essay on Indig. Fossor. Hym., p. 113. ♂.
Oxybelus laevigatus Schilling, 1848. Schles. Gesell. f. Vaterland. Kult. Arb. im Jahre 1847, p. 105.
Biology: Crèvecoeur, 1930. Soc. Ent. Belg. Bul. et Ann. 70: 271–80.—Crèvecoeur, 1931. Soc. Ent. Belg. Bul. et Ann. 71: 187–92.—Krombein, 1948. Ent. Soc. Wash. Proc. 50: 67.

calligaster (Viereck), n. comb. Kans.
Notoglossa calligaster Viereck, 1906. Amer. Ent. Soc. Trans. 32: 214. ♀.

carolinus Banks. N. C.
Oxybelus carolinus Banks, 1921. Ent. Soc. Amer. Ann. 14: 18. ♀.

cochise Pate. Calif., Ariz., N. Mex., Tex.
Oxybelus cochise Pate, 1943. Brooklyn Ent. Soc. Bul. 38: 93. ♂.

cockerelli Baker. Colo.
Oxybelus cockerelli Baker, 1896. Ent. News 7: 61. ♂.

cocopa Pate. Calif.
Oxybelus cocopa Pate, 1943. Pan-Pacific Ent. 19: 121. ♂.

coloradensis Baker. Alta., Colo.
Oxybelus coloradensis Baker, 1896. Ent. News 7: 160. ♂.

cornutus Robertson. Calif., Mont., Ariz., N. Mex., Colo., Tex.
Oxybelus cornutus Robertson, 1889. Amer. Ent. Soc. Trans. 16: 80. ♂.

cressonii Robertson. D. C., Va., Ill., Iowa. Prey: *Thaumatomyia bistriata* (Walk.).
Oxybelus Cressonii Robertson, 1889. Amer. Ent. Soc. Trans. 16: 83. ♀.
Biology: Krombein, 1948. Ent. Soc. Wash. Proc. 50: 67.

decorosa (Mickel) n. comb. Nebr.
Notoglossa decorosa Mickel, 1916. Amer. Ent. Soc. Trans. 42: 430. ♀.

delicatus Mickel. Nebr.
Oxybelus delicatus Mickel, 1918 (1917). Nebr. Univ. Studies 17: 322. ♂.

denverensis Rohwer. Colo.
Oxybelus denverensis Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 118. ♀.

dilutus Baker. Colo.
Oxybelus dilutus Baker, 1896. Ent. News 7: 159. ♀.

emarginatus Say. East. U. S. and Canada west to Tex., Colo., and Man.
Oxybelus emarginatus Say, 1837. Boston Jour. Nat. Hist. 1: 375. ♂.
Oxybelus parvus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 476. ♀.

exclamans Viereck. Ala., Kans., Okla.
Oxybelus exclamans Viereck, 1906. Amer. Ent. Soc. Trans. 32: 215. ♀.

floridanus Robertson. Fla.
Oxybelus floridanus Robertson, 1901. Amer. Ent. Soc. Trans. 27: 203. ♂.

fossor Rohwer and Cockerell. N. Mex.
Oxybelus fossor Rohwer and Cockerell, 1908. Ent. News 19: 179. ♀.

frontalis Robertson. Pa., D. C., Ill., Iowa, Ark., La., Kans., Tex., Colo.
Oxybelus frontalis Robertson, 1889. Amer. Ent. Soc. Trans. 16: 83. ♂ ♀.

fulvipes Robertson. Fla.
Oxybelus fulvipes Robertson, 1889. Amer. Ent. Soc. Trans. 16: 82. ♂.

glenensis H. S. Smith. Nebr.
Oxybelus glenensis H. S. Smith, 1908. Nebr. Univ. Studies 8: 410. ♀.

heterolepis Cockerell and Baker. N. Mex.
Oxybelus heterolepis Cockerell and Baker, 1896. Psyche 7 (sup.): 22. ♂.

heterolepis var. **defectus** Cockerell and Baker. N. Mex.
Oxybelus heterolepis var. *defectus* Cockerell and Baker, 1896. Psyche 7 (sup.): 23.

incisura (Mickel) n. comb. Nebr.
Notoglossa incisura Mickel, 1916. Amer. Ent. Soc. Trans. 42: 430. ♂.

inornata (Robertson) n. comb. Ill.
Notoglossa inornata Robertson, 1901. Amer. Ent. Soc. Trans. 27: 203. ♂ ♀.

intermedius Baker. N. Y., Va., Colo.
Oxybelus intermedius Baker, 1896. Ent. News 7: 160. ♀.

laetus Say. D. C., Va., Ind., Ill., Kans., Tex., N. Mex., Calif.
Oxybelus laetus Say, 1837. Boston Jour. Nat. Hist. 1: 375. ♂.

major Mickel. Nebr.
Oxybelus major Mickel, 1916. Amer. Ent. Soc. Trans. 42: 434. ♂.

manni Rohwer. Wash.
Oxybelus manni Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 117. ♀.

minor (Mickel), n. comb. Nebr.
Notoglossa minor Mickel, 1916. Amer. Ent. Soc. Trans. 42: 428. ♂.

mottensis Mickel. N. Dak.
Oxybelus mottensis Mickel, 1918 (1917). Nebr. Univ. Studies 17: 323. ♀.

niger Robertson. N. Y., Ont., Mich., Ill.
Oxybelus niger Robertson, 1889. Amer. Ent. Soc. Trans. 16: 82. ♂.

pacifica (Rohwer), n. comb. Wash.
Notoglossa pacifica Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 119. ♂.

packardii Robertson. N. J., D. C., Va., Ill., Ala., Kans., Okla., Tex., N. Mex., Ariz., Calif.
Oxybelus Packardii Robertson, 1889. Amer. Ent. Soc. Trans. 16: 80. ♂ ♀.

packardii var. **texanus** Robertson. Tex.
Oxybelus Packardii var. *texanus* Robertson, 1889. Amer. Ent. Soc. Trans. 16: 81. ♂ ♀.

paenemarginatus (Viereck), n. comb. Kans.
Notoglossa paenemarginatus Viereck, 1906. Amer. Ent. Soc. Trans. 32: 214. ♀.

pectorosus Mickel. Nebr.
Oxybelus pectorosus Mickel, 1918 (1917). Nebr. Univ. Studies 17: 321. ♂.

pitanta Pate. Calif.
Oxybelus pitanta Pate, 1943. Pan-Pacific Ent. 19: 123. ♂.

polygoni Rohwer. Colo.
Oxybelus polygoni Rohwer, 1909. Amer. Ent. Soc. Trans. 35: 116. ♀.

puente Pate. Calif.
Oxybelus puente Pate, 1943. Pan-Pacific Ent. 19: 125. ♂ ♀.

punctatus Baker. Colo.
Oxybelus punctatus Baker, 1896. Ent. News 7: 60. ♂.

quadricolor Cockerell and Baker. N. Mex.
Oxybelus quadricolor Cockerell and Baker, 1896. Psyche 7 (sup.): 21. ♀.

quadrinotatus Say. Generally distributed throughout the U. S. and south. Canada. Prey: *Musca domestica* L.; *Ophyra leucostoma* Wied.; *Sarcophaga rapax* Walk.; *Hylemya cilicrura* (Rond.).
Oxybelus quadrinotatus Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, app. p. 338.
Oxybelus impatiens Smith, 1856. Cat. Hym. Brit. Mus., v. 4, p. 390. ♀.
Oxybelus interruptus Cresson, 1865. Ent. Soc. Phila. Proc. 4: 475. ♀.
Oxybelus Brodiei Provancher, 1883. Nat. Canad. 14: 36. ♀.
Biology: Peckham and Peckham, 1898. Wis. Geol. and Nat. Hist. Survey Bul. 2: 73–76.—Parker, 1915. Ent. Soc. Wash. Proc. 17: 74–75.—Strandtmann, 1945. Ent. Soc. Amer. Ann. 38: 313.—Krombein, 1948. Ent. Soc. Wash. Proc. 50: 67.

quadrinotatus var. **montanus** Robertson. Generally distributed throughout the U. S. and south. Canada. Prey: A wide variety of larger flies.
Oxybelus quadrinotatus var. *montanus* Robertson, 1889. Amer. Ent. Soc. Trans. 16: 78. ♂ ♀.
Biology: Williams, 1936. Pan-Pacific Ent. 12: 1–3.

rancocas Pate. N. J.
Oxybelus rancocas Pate, 1943. Brooklyn Ent. Soc. Bul. 38: 91. ♂.

rejectus Baker. Colo.
Oxybelus rejectus Baker, 1896. Ent. News 7: 59. ♂.

robertsonii Baker. Colo.
Oxybelus robertsonii Baker, 1896. Ent. News 7: 156. ♂.

sericeus Robertson. N. Y., Ill., N. Mex., Tex., Calif.
Oxybelus sericeus Robertson, 1889. Amer. Ent. Soc. Trans. 16: 81. ♀.

similis Cresson. Colo.
Oxybelus similis Cresson, 1865. Ent. Soc. Phila. Proc. 4: 476. ♀.

sparideus Cockerell. Tex., N. Mex.
Oxybelus sparideus Cockerell, 1895. Amer. Ent. Soc. Trans. 22: 292. ♂.

striatifrons (Mickel), n. comb. Wyo.
Notoglossa striatifrons Mickel, 1916. Amer. Ent. Soc. Trans. 42: 429. ♂.

striatus Baker. Colo.
Oxybelus striatus Baker, 1896. Ent. News 7: 60. ♂.

subcornutus Cockerell. D. C., Va., Ga., N. Mex. Prey: *Allograpta obliqua* (Say).
Oxybelus subcornutus Cockerell, 1895. Amer. Ent. Soc. Trans. 22: 293. ♀.
Biology: Pate, 1945. Brooklyn Ent. Soc. Bul. 40: 165.

subulatus Robertson. Eastern states and Canadian provinces west to Alta. and Colo.
Oxybelus mucronatus Packard, 1867. Ent. Soc. Phila. Proc. 6: 436. ♂ ♀. Preocc.
Oxybelus subulatus Robertson, 1889. Amer. Ent. Soc. Trans. 16: 79. ♂ ♀.
Oxybelus Packardi Dalla Torre, 1890. Wien. Ent. Ztg. 9: 203. Preocc.

townsendi Rohwer and Cockerell. N. Mex.
Oxybelus townsendi Rohwer and Cockerell, 1908. Ent. News 19: 180. ♂.

trifidus Cockerell and Baker. N. Mex.
Oxybelus trifidus Cockerell and Baker, 1896. Psyche 7 (sup.): 23. ♂.

umbrosus Mickel. Nebr.
Oxybelus umbrosus Mickel, 1916. Amer. Ent. Soc. Trans. 42: 432. ♂.

unicus Mickel. Nebr.
Oxybelus unicus Mickel, 1918 (1917). Nebr. Univ. Studies 17: 323. ♀.

varicoloratus Baker. Colo.
Oxybelus varicoloratus Baker, 1896. Ent. News 7: 157. ♀.

Family DRYINIDAE[63]

Comparatively few North American specimens of this family that are collected can be identified at present since the group is virtually unstudied. Most Nearctic species appear to be still undescribed; and many of the species listed here are probably not referred to the genera in which they really belong. A large proportion of them are known only from the unique types. Moreover, the sexes are so strongly dimorphic, except in the subfamily Aphelopinae, that they can be positively associated only by rearing. Apparently most species of the family are parasites of Homoptera, especially Cicadellidae and Fulgoroidea; but definite rearing records are few.

Taxonomy: Kieffer, 1914. Das Tierreich, Lief. 41, pp. VI-XXV, 1–595.
Biology: Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1 (1): 10–26.—Haupt, 1916. Ztschr. f. Wiss. Insektenbiol. 12: 217–223.—Fenton, 1918. Ohio Jour. Sci. 18: 182–257.
Morphology: Haupt, 1932. Zool. Anz. 99: 1–18.—Reid, 1941. Roy. Ent. Soc. London Trans. 91: 409–412.

Subfamily DRYININAE

Biology: Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 16–20.
Morphology: Swezey, 1903. Ohio Naturalist 3: 448–451.
Taxonomy: Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 80–101.

Tribe DRYININI

Genus MESODRYINUS Kieffer

Mesodryinus Kieffer, 1906. *In* André, Spec. Hym. Eur. Alg., v. 9, p. 497.
Type: ***Dryinus niger*** Kieffer. Orig. desig.

alatus (Cresson). Tex.
Gonatopus (?) ***alatus*** Cresson, 1872. Amer. Ent. Soc. Trans. 4: 193. ♀.

americanus (Ashmead), n. comb. Fla.
Mystrophorus americanus Ashmead, 1887. Ent. Amer. 3: 128. ♀.

Genus HESPERODRYINUS Perkins

Hesperodryinus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 40.
Type: ***Hesperodryinus arizonicus*** Perkins. Orig. desig.

amphiscepae Perkins. Ariz. (Nogales). Host: *Acanalonia bivittata* (Say).
Hesperodryinus amphiscepae Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 41. ♀.

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[63] By C. F. W. Muesebeck and Luella M. Walkley, U. S. Bureau of Entomology and Plant Quarantine.

arizonicus Perkins. Ariz. (Nogales). Host: *Mistharnophantia sonorana* Kirk.
Hesperodryinus arizonicus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 42. ♀.

audax Perkins. Ariz. (Nogales).
Hesperodryinus audax Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 43. ♀.

Genus TETRADRYINUS Kieffer

Tetradryinus Kieffer, 1913. Lab. Zool. Gen. e Agr. Portici Bol. 7: 325.
Type: ***Bocchus flavipes*** Kieffer. Monob.

flavipes (Kieffer). Nev. (Ormsby).
Bocchus flavipes Kieffer, 1906. Berlin. Ent. Ztschr. 50: 237. ♀.

Genus PERODRYINUS Perkins

Perodryinus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 42.
Type: ***Perodryinus amoenus*** Perkins. Monob.

amoenus Perkins. Ariz. (Nogales). Host: *Acanalonia bivittata* (Say).
Perodryinus amoenus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 43. ♀ ♂.

Genus PSILODRYINUS Kieffer

Psilodryinus Kieffer, 1906. *In* André, Spec. Hym. Eur. Alg., v. 9, p. 497. Proposed as subgenus of *Neodryinus* Perkins.
Type: ***Dryinus acuticollis*** Kieffer. Orig. desig.

arizonicus (Perkins). Ariz. (Nogales). Host: *Ormenis septentrionalis* (Spin.).
Neodryinus arizonicus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 38. ♀.

carinatus Fouts. Pa. (Carlisle).
Psilodryinus carinatus Fouts, 1924. Ent. Soc. Wash. Proc. 26: 160. ♀.

dubiosus (Perkins). Ariz. (Nogales).
Neodryinus dubiosus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 39. ♀.

typhlocybae (Ashmead), n. comb. N. Y., D. C., Ohio, Ill., Iowa, Ark., Kans. Hosts: *Ormenis pruinosa* (Say); *O. septentrionalis* (Spin.).
Labeo typhlocybae Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 89. ♂.
Dryinus ormenidis Ashmead, 1903. Ent. News 14: 192. ♀.
Dryinus nigrellus Brues, 1904. Canad. Ent. 36: 117. ♀. N. syn.

Genus CYRTOGONATOPUS Kieffer

Cyrtogonatopus Kieffer, 1907. *In* Wytsman, Gen. Ins., fasc. 54, p. 19.
Type: ***Platygonatopus (Cyrtogonatopus) breviforceps*** Kieffer. Monob.

clavicornis Fenton. Tex. (Brownsville).
Cyrtogonatopus clavicornis Fenton, 1927. U. S. Natl. Mus. Proc. 72 (8): 3.

Genus PRISTOGONATOPUS Kieffer

Pristogonatopus Kieffer, 1913. Lab. Zool. Gen. e. Agr. Portici Bol. 7: 325.
Type: ***Gonatopus dentatiforceps*** Kieffer, 1905. Monob. and orig. desig.

sjöstedti (Kieffer). Tex.
Gonatopus sjöstedti Kieffer, 1904. Arkiv för Zool. 1: 525. ♀.

Genus DICONDYLUS Cutris

Dicondylus Curtis, 1829. Guide Brit. Ins., col. 110.
Type: ***Dryinus bicolor*** Curtis. Desig. by Kieffer, 1914.

Labeo Haliday, 1833. Ent. Mag. 1: 273.
Type: ***Labeo vitripennis*** Haliday, 1833. Monob.
Laberius Kieffer, 1914. Das Tierreich, Lief. 41, p. 59.
Type: ***Labeo vitripennis*** Haliday. Autob.
Laberinus (!) Ogloblin, 1932. Rev. de Ent. Sao Paulo 2: 266. Misspelling.
Revision: Richards, 1939. Roy. Ent. Soc. London Trans. 89: 185–344.

albitarsis (Kieffer). Nev.
Labeo albitarsis Kieffer, 1906. Berlin. Ent. Ztschr. 50: 2.

nasutus (Ashmead). Fla. (Jacksonville).
Embolemus nasutus Ashmead, 1887. Ent. Amer. 3: 75. ♂.

?texanus (Ashmead). Tex.
Labeo texanus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 89. ♂.

Genus PSEUDOGONATOPUS Perkins

Pseudogonatopus Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 34.
Type: ***Pseudogonatopus dichromus*** Perkins. Desig. by Richards, 1939.

americanus Perkins. Ohio (Columbus).
Pseudogonatopus americanus Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. 1: 37. ♀.

arizonicus Perkins. Ariz. (Nogales). Host: ?*Stobaera* sp.
Pseudogonatopus arizonicus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 36. ♀.

autoxenobius Perkins. Ariz. (Nogales). Host: ?*Stobaera* sp.
Pseudogonatopus autoxenobius Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 37. ♀.

iowensis Fenton. Iowa. Host: *Delphacodes lutulenta* (Van D.).
Pseudogonatopus iowensis Fenton, 1924. Ohio Jour. Sci. 24: 191. ♀.

magnus Brown. Ind. (Wawasee Lake).
Pseudogonatopus magnus Brown, 1940. Ent. News. 51: 11. ♀.

stenocrani dubiosus Perkins. Ohio.
Pseudogonatopus stenocrani var. ***dubiosus*** Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 39. ♀.

stenocrani stenocrani Perkins. Ohio.
Pseudogonatopus stenocrani Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 38. ♀.

Genus AGONATOPOIDES Perkins

Agonatopoides Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 33.
Type: ***Agonatopoides synchromus*** Perkins. Monob.

synchromus Perkins Ariz. (Nogales). Host: *Bostaera nasuta* Ball.
Agonatopoides synchromus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 33.

Genus HAPLOGONATOPUS Perkins

Haplogonatopus Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 39.
Type: ***Haplogonatopus americanus*** Perkins. Desig. by Richards, 1939.

americanus Perkins. Va., Ohio, Iowa. Hosts: *Delphacodes campestris* (Van D.); *D. lutulenta* (Van D.).
Haplogonatopus americanus Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 40. ♀.

Genus EUCAMPTONYX Perkins

Eucamptonyx Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 28.
Type: ***Eucamptonyx testaceus*** Perkins. Monob.

secundus Fenton. Ohio, Fla.
Eucamptonyx secundus Fenton, 1927. U. S. Natl. Mus. Proc. 72 (8): 5. ♀.

testaceus Perkins. Ariz. (Nogales).
Eucamptonyx testaceus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 28.

Genus APTERODRYINUS Perkins

Apterodryinus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 14.
Type: ***Apterodryinus torvus*** Perkins. Monob.

torvus Perkins. Ariz. (Nogales). Hosts: *Mistharnophantia sonorana* Kirk.; *Acanalonia immaculata* (Kirk.).
Apterodryinus torvus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta. Div. Ent. Bul. 4: 14.

Genus PACHYGONATOPUS Perkins

Pachygonatopus Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 45.
Type: ***Pachygonatopus melanias*** Perkins. Monob.

minimus Fenton. S. Dak. (Elk Point).
Pachygonatopus minimus Fenton, 1927. U. S. Natl. Mus. Proc. 72 (8): 6. ♀.

nearcticus Fenton. Iowa (Sioux City).
Pachygonatopus nearcticus Fenton, 1927. U. S. Natl. Mus. Proc. 72 (8): 6. ♀.

Genus CHALCOGONATOPUS Perkins

Chalcogonatopus Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 46.
Type: ***Chalcogonatopus gigas*** Perkins. Desig. by Kieffer, 1914.
Eugonatopus Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 46.
Type: ***Chalcogonatopus (Eugonatopus) pseudochromus*** Perkins. Monob.

areolatus Fenton. Va. (Falls Church).
Chalcogonatopus areolatus Fenton, 1927. U. S. Natl. Mus. Proc. 72 (8): 7. ♀.

Genus GONATOPUS Ljungh

Gonatopus Ljungh, 1810. Beitr. Naturk., v. 2, p. 161.
Type: ***Gonatopus formicarius*** Ljungh. Monob.
Revision: Richards, 1939. Roy. Ent. Soc. London, Trans. 89: 185–344.
Biology: Haupt, 1916. Ent. Gesell. Halle Mitt. 10: 41–50.
Morphology: Haupt, 1932. Zool. Anz. 99: 1–18.

affinis Fenton. Ohio (Bay View). Host: *Psammotettix affinis* (G. and B.).
Gonatopus affinis Fenton, 1918. Ohio Jour. Sci. 18: 266. ♀ ♂.

agropyrus Fenton. Iowa (Ames). Host: *Psammotettix affinis* (G. and B.).
Gonatopus agropyrus Fenton, 1921. Canad. Ent. 58: 71.

ashmeadi Kieffer. Ala., Tex. Host: ?*Delphacodes lutulenta* (Van D.).
Gonatopus bicolor Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 85. ♀. Preocc.
Gonatopus ashmeadi Kieffer, 1904. *In* André, Spec. Hym. Eur. Alg., v. 9, p. 108. N. name.

contortulus Patton. Que., Mass., Conn., Ohio. Host: *Latalus sayi* (Fitch).
Gonatopus contortulus Patton, 1879. Canad. Ent. 11: 65. ♀.

cyphonotus Bradley. B. C. (Downie Creek, Big Bend Country).
Gonatopus cyphonotus Bradley, 1906. Canad. Ent. 38: 380. ♀.

decipiens Provancher. Que. (Cap Rouge).
Gonatopus decipiens Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 179. ♀.

foutsi Whittaker. B. C. (Chilliwack).
Gonatopus foutsi Whittaker, 1928. Ent. Soc. London Trans., p. 388. ♀.

inimicis Fenton. Ohio. Host: *Endria inimica* (Say).
Gonatopus inimicis Fenton, 1918. Ohio Jour. Sci. 18: 270. ♀.

?longicornis (Brues), n. comb. Pa. (Saegerstown).
Phorbas longicornis Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 152. ♂.

peculiaris Brues. Tex. (Austin).
Gonatopus peculiaris Brues, 1903. Amer. Ent. Soc. Trans. 29: 125. ♀.

punctatus Fenton. Ohio (Columbus). Host: *Latalus sayi* (Fitch).
Gonatopus punctatus Fenton, 1918. Ohio Jour. Sci. 18: 268. ♂ ♀.

septentrionalis Whittaker. B. C. (Chilliwack).
Gonatopus septentrionalis Whittaker, 1928. Ent. Soc. London Trans., p. 388. ♀.

similis Fenton. Iowa (Ames). Host: *Psammotettix affinis* (G. and B.).
Gonatopus similis Fenton, 1921. Canad. Ent. 53: 71. ♀.

Genus NEOGONATOPUS Perkins

Neogonatopus Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 42.
Type: *Neogonatopus ombrodes* Perkins. Desig. by Richards, 1939.
Allogonatopus Haupt, 1938. Ztschr. f. Naturw. 92: 21.
Type: *Allogonatopus procerus* Haupt. Orig. desig.

brunnescens Perkins. Ohio.
Neogonatopus brunnescens Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 42, 44. ♀.

erythrodes Perkins. Ohio, Iowa. Host: *Endria inimica* (Say).
Neogonatopus erythrodes Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 42, 43. ♀.

longitarsis (Ashmead), n. comb. Fla., La.
Labeo longitarsis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 88. ♂.

mimoides Perkins. Ariz., Utah.
Neogonatopus mimoides Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 33, 34. ♀.

mimus Perkins. Ariz. (Nogales).
Neogonatopus mimus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 33. ♀.

obscurissimus Perkins. Ohio (Columbus). Host: *Deltocephalus* spp.
Neogonatopus obscurissimus Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 42, 43. ♀.

ombrodes Perkins. Ohio, Colo., Calif., Conn., S. Dak. Host: *Macrosteles divisus* (Uhl.).
Neogonatopus ombrodes Perkins, 1905. Hawaii. Sugar Planters' Assoc. Div. Ent. Bul. 1: 42, 43. ♀.
Biology: Ainslie, 1920. Ent. News 31 (6): 169, and 31 (7): 187.

pallidiceps Perkins. Calif. (Alamedes).
Neogonatopus pallidiceps Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 42, 45. ♀.

Genus AGONATOPUS Perkins

Agonatopus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 9, 29.
Type: *Agonatopus pallidicornis* Perkins. Desig. by Richards, 1939.

dubiosus Perkins. Ariz. (Nogales).
Agonatopus pallidicornis var. *dubiosus* Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 29. ♀.

ferrugineus Perkins. Ariz. (Nogales).
Agonatopus ferrugineus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 30. ♀.

heterothorax Perkins. Ariz. (Nogales).
Agonatopus heterothorax Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 32. ♀.

innitidus Perkins. Ariz. (Nogales).
Agonatopus innitidus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 31. ♀.

pallidicornis Perkins. Ariz.
Agonatopus pallidicornis Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 29. ♀.

picescens Perkins. Ariz. (Nogales).
Agonatopus picescens Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 30. ♀.

suturalis Fenton. Ariz. (Tucson).
Agonatopus suturalis Fenton, 1927. U. S. Natl. Mus. Proc. 72 (8): 9. ♀.

Genus EPIGONATOPUS Perkins

Epigonatopus Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 45.
Type: *Epigonatopus solitarius* Perkins. Monob.

americanus Fenton. Iowa (Ames).
Epigonatopus americanus Fenton, 1921. Canad. Ent. 53: 70. ♀.

plesuis Fenton. S. Dak. (Elk Point).
Epigonatopus plesuis Fenton, 1927. U. S. Natl. Mus. Proc. 72 (8): 9. ♀.

tenuis Fenton. Ind. (La Fayette).
Epigonatopus tenuis Fenton, 1927. U. S. Natl. Mus. Proc. 72 (8): 8. ♀.

Genus DIGONATOPUS Kieffer

Digonatopus Kieffer, 1913. Lab. Zool. Gen. e Agr. Portici Bol. 7: 325.
Type: *Discondylus* (!) *javanus* Perkins. Monob. and orig. desig.

haplothorax (Perkins). Ariz. (Nogales).
Gonatopus haplothorax Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 35. ♀.

Tribe BOCCHINI

Genus BOCCHUS Ashmead

Bocchus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 91.
Type: *Bocchus flavicollis* Ashmead. Monob. and orig. desig.
Phorbas Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 90. Preocc.
Type: *Phorbas laticeps* Ashmead. Monob.
Eukoebeleia Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 59.
Type: *Eukoebeleia mirabilis* Perkins. Monob.
Phorbasia Kieffer, 1914. Das Tierreich, Lief. 41, p. 58. N. name.
Type: *Phorbas laticeps* Ashmead. Autob.

arizonica (Perkins). Ariz. (Nogales). Host: *Bruchomorpha* sp.
Eukoebeleia arizonica Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 44. ♀.

flavicollis Ashmead. Mich. (Marquette).
Bocchus flavicollis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 91. ♀.

laticeps (Ashmead). Fla.
Phorbas laticeps Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 90. ♂.

mirabilis (Perkins). Ohio. Host: *Bruchomorpha oculata* Newm.
Eukoebeleia mirabilis Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 59. ♀.

Tribe ANTEONINI

Genus ANTEON Jurine

Anteon Jurine, 1807. Nouv. Méth. Class. Hym. Dipt., p. 302.
Type: *Anteon jurineanus* Latreille, 1809. First included species.
Antaeon Haliday, 1833. Ent. Mag. 1: 275. Emend.
Prosanteon Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 66.
Type: *Prosanteon chelogynoides* Perkins. Monob.
Xenanteon Kieffer, 1913. Soc. Ent. France Bul. 12: 300.
Type: *Xenanteon reticulatus* Kieffer. Present desig.

arizonensis Perkins. Ariz. (Nogales).
Anteon arizonensis Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta. Div. Ent. Bul. 4: 51. ♀ ♂.

canadensis (Ashmead), n. comb. Que., Ont., Md.
Chelogynus canadensis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 93. ♀.

hirtifrons Whittaker. B. C. (Hollyburn).
Anteon hirtifrons Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 68. ♂.

minutus Ashmead. D. C.
Anteon minutus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 97. ♀.

pallidicornis Ashmead. Utah (Utah Lake).
Anteon pallidicornis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 97. ♀.

politus Ashmead. Que., Ont.
Anteon politus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 96. ♀.

?popenoei (Ashmead). Kans.
Dryinus popenoei Ashmead, 1888. Kans. State Col. Agr. Bul. 3: App. p. I. ♂.

puncticeps Ashmead. D. C., Va.
Anteon puncticeps Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 97. ♂.

rugosiceps Kieffer. Calif. (Santa Clara).
Anteon rugosiceps Kieffer, 1906. Berlin. Ent. Ztschr. 50: 238. ♂.

unifasciatus Ashmead. Fla. (Biscayne Bay).
Anteon unifasciatus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 95. ♀.

?tibialis Say. D. C., Ind.
Anteon tibialis Say, 1836. Boston Jour. Nat. Hist. 1: 284. ♂.

whittakeri Muesebeck and Walkley, n. name. B. C.
Anteon flaviscapus Whittaker, 1930. Ent. Soc. Wash. Proc. 32: 67. ♂. Preocc.

Genus CHELOGYNUS Haliday

Chelogynus Haliday, 1838. Ent. Mag. 5: 518.
Type: *Dryinus infectus* Walker. Present desig.
Neochelogynus Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 60.
Type: *Neochelogynus typicus* Perkins. Orig. desig.
Lasianteon Kieffer, 1913. Soc. Ent. France Bul. 13: 200. N. syn.
Type: *Anteon rubrifrons* Kieffer. Present desig.
Callianteon Kieffer, 1913. Soc. Ent. France Bul. 12: 300. N. syn.
Type: *Anteon bifasciatus* Kieffer. Monob.

funestus Perkins. Ariz.
Chelogynus funestus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 48. ♀ ♂.

lusus Perkins. Ariz. (Tucson).
Chelogynus lusus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 50. ♀.

melanacrias Perkins. Ariz. (Nogales).
Chelogynus melanacrias Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 49. ♀.

minimus Fenton. N. Y. (Barneveld).
Chelogynus minimus Fenton, 1927. U. S. Natl. Mus. Proc. 72 (8): 13. ♀.

osborni Fenton. Ohio (Sandusky). Host: *Chlorotettix unicolor* (Fitch).
Chelogynus osborni Fenton, 1918. Ohio Jour. Sci. 18: 256, 272. ♀.

rugulosus Fenton. N. B. (Saint John).
Chelogynus rugulosus Fenton, 1927. U. S. Natl. Mus. Proc. 72 (8): 14. ♀.

virginiensis Fenton. Va. (Rosslyn).
Chelogynus virginiensis Fenton, 1927. U. S. Natl. Mus. Proc. 72 (8): 14. ♀.

vivariensis Bradley. N. Y., R. I.
Chelogynus vivariensis Bradley, 1926. Biol. Soc. Wash. Proc. 39: 7. ♀.

xanthothorax Bradley. N. Y.
Chelogynus xanthothorax Bradley, 1926. Biol. Soc. Wash. Proc. 39: 8. ♀.

Genus DEINODRYINUS Perkins

Deinodryinus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 45.
Type: *Deinodryinus paradoxus* Perkins. Present desig.

atriceps (Brues), n. comb. N. Y., Pa., Iowa, Kans.
Bocchus atriceps Brues, 1904. Canad. Ent. 36: 118. ♀.
Deinodryinus variabilis var. *carinatus* Fenton, 1927. U. S. Natl. Mus. Proc. 72 (8): 11. ♀. N. syn.

atriventris (Cresson), n. comb. Tex.
Dryinus atriventris Cresson, 1872. Amer. Ent. Soc. Trans. 4: 193. ♀.

ferrugineus (Brues), n. comb. Tex.
Chelogynus ferrugineus Brues, 1905. Wis. Nat. Hist. Soc. Bul. 3: 183. ♀.

grandis (Brues), n. comb. Mass., N. Y.
Chelogynus grandis Brues, 1905. Wis. Nat. Hist. Soc. Bul. 3: 184. ♀.

henshawi (Ashmead), n. comb. Mass., N. Y., Nebr.
Chelogynus Henshawi Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 93. ♀.

paradoxus Perkins. Ariz. (Nogales).
Deinodryinus paradoxus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 46. ♀ ♂.

pilosus Fenton. Ariz. (Chiricahua Mts.).
Deinodryinus pilosus Fenton, 1927. U. S. Natl. Mus. Proc. 72 (8): 12. ♀.

quercicola Perkins. Ariz. (Nogales).
Deinodryinus quercicola Perkins, 1970. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 47. ♀.

schaefferi (Brues), n. comb. Ariz., Tex.
Chelogynus schaefferi Brues, 1907. Wis. Nat. Hist. Soc. Bul. 5: 101. ♀.

variabilis Fenton. Va. (Falls Church).
Deinodryinus variabilis Fenton, 1927. U. S. Natl. Mus. Proc. 72 (8): 10. ♀.

Genus PRENANTEON Kieffer

Prenanteon Kieffer, 1913. Soc. Ent. France Bul. 12: 301.
Type: *Anteon crassiscapus* Kieffer. Desig. by Kieffer, 1914.

americanus Kieffer. Wis.
Prenanteon americanum Kieffer, 1914. Soc. Ent. France Bul., p. 91.

bakeri (Kieffer). Nev. (Ormsby).
Anteon bakeri Kieffer 1906. Berlin. Ent. Ztschr. 50: 239. ♀.

micropunctatus Fenton. N. B. (Nerepis).
Prenanteon micropunctatus Fenton, 1927. U. S. Natl. Mus. Proc. 72 (8): 15. ♀.

Genus TRISANTEON Kieffer

Trisanteon Kieffer, 1913. Soc. Ent. France Bul. 12: 300.
Type: *Anteon hirticornis* Kieffer. Monob.

rugosus (Ashmead). Ill.
Anteon rugosus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 96. ♂.

Subfamily APHELOPINAE

Genus APHELOPUS Dalman

Aphelopus Dalman, 1823. Analecta Ent., p. 8. Proposed as subgenus of *Dryinus* Latr.
Type: *Dryinus* (*Aphelopus*) *atratus* Dalman. Desig. by Westwood, 1839.
Morphology: Haupt, 1932. Zool. Anz. 99: 1–18.

affinis Ashmead. Canada.
Aphelopus affinis Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 102. ♀.

albopictus Ashmead. Md., D. C.
Aphelopus albopictus Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 100. ♀.

americanus Ashmead. Fla.
Aphelopus americanus Ashmead, 1887. Ent. Amer. 3: 74. ♂.

arizonicus Perkins. Ariz. (Nogales). Host: ?*Dikraneura* sp.
Aphelopus arizonicus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 53. ♂ ♀.

bicolor Fenton. Iowa, Ark., Del. Host: *Hymetta trifasciata* (Say).
Aphelopus bicolor Fenton, 1924. Ohio Jour. Sci. 24: 192.

comesi Fenton. Del., Ohio, Mich., Tenn., Iowa, Ark., La. Host: *Erythroneura* spp.
Aphelopus comesi Fenton, 1918. Ohio Jour. Sci. 18: 277. ♂.

dikraneuri Fenton. Ohio, Iowa. Host: *Forcipata* sp., prob. *loca* DeL. and C.
Aphelopus dikraneuri Fenton, 1918. Ohio Jour. Sci. 18: 276. ♀ ♂.

microleucus Perkins. Ariz. (Nogales). Host: *Typhlocyba* sp.
Aphelopus microleucus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 55. ♂.

microtomus Whittaker. B. C. (Chilliwack).
Aphelopus microtomus Whittaker, 1928. Ent. Soc. London Trans., p. 389. ♀.

pilicornis Whittaker. B. C. (Chilliwack).
Aphelopus pilicornis Whittaker, 1928. Ent. Soc. London Trans., p. 389. ♀ ♂.

pulcherrimus Perkins. Ariz. (Nogales). Hosts: *Erythroneura* sp.; ?*Typhlocyba* sp.
Aphelopus pulcherrimus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 54. ?♂.

rufiventris Ashmead. Fla. (Jacksonville).
Aphelopus rufiventris Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 100. ♀.

theliae Gahan. N. Y. (Cold Spring Harbor, L. I.). Host: *Thelia bimaculata* (F.).
Aphelopus theliae Gahan, 1918. Canad. Ent. 50: 151. ♀ ♂.
Biology: Kornhauser, 1919. Jour. Morph. 32: 547–554, figs. 1–4.

typhlocybae Muesebeck. N. Y., Md. Hosts: *Typhlocyba pomaria* McA.; *T. froggatti* Baker (in New Zealand).
Aphelopus typhlocybae Muesebeck, 1936. Ent. Soc. Wash. Proc. 37: 167. ♀ ♂.
Biology: Steiner, 1936. Jour. Econ. Ent. 29: 632.—Dumbleton, 1937. Jour. Sci. and Technol. New Zealand 18: 869.

varicornis Brues. Mass. (Woods Hole).
Aphelopus varicornis Brues, 1906. Wis. Nat. Hist. Soc. Bul. 4: 143. ♀.

viduus Perkins. Ariz. (Nogales).
Aphelopus viduus Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta. Div. Ent. Bul. 4: 54. ♂.

Unrecognized Species of Dryininae

Dryinus bifasciatus Say, 1828. Contrib. Maclur. Lyc. Phila. 1: 81. ♀. Possibly *Deinodryinus* Perkins.

Subfamily EMBOLEMINAE

The habits and host relations of the members of this group are unknown; and the sexes are so unlike in appearance that they were long referred to different genera.

Genus AMPULICOMORPHA Ashmead

Ampulicomorpha Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 79.
Type: ***Ampulicomorpha confusa*** Ashmead. Monob. and orig. desig.

confusa Ashmead. Va., N. C., Calif.
Ampulicomorpha confusa Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 80. ♂.

Genus EMBOLEMUS Westwood

Embolemus Westwood, 1833. London, Edinb. and Dublin Phil. Mag. and Jour. Sci. 1: 444.
Type: ***Embolemus ruddii*** Westwood. Monob.
Myrmecomorphus Westwood, 1833. Mag. Nat. Hist. 6: 496.
Type: ***Myrmecomorphus rufescens*** Westwood. Monob.
Embolimus Agassiz, 1846. Nomencl. Zool., Ind. Univ., p. 137. Emend.
Formila de Romand, 1846. Soc. Ent. France Ann. (2) 4: Bul. p. XXXII. N. syn.
Type: ***Formila chevrolatii*** de Romand. Monob.
Pedinomma Foerster, 1856. Hym. Stud., v. 2, p. 94. Unnecessarily proposed as a n. name for *Myrmecomorphus* Westwood.
Type: ***Myrmecomorphus rufescens*** Westwood. Autob.

nearcticus (Brues), n. comb. Mass., N. Y.
Pedinomma nearcticum Brues, 1922. Psyche 29: 7. ♂.

Superfamily APOIDEA[64]

Revisions: Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 41–73 (N. Mex. species) —Cockerell, 1898. N. Mex. Univ. Bul. 1: 41–73 (N. Mex. species).—Cockerell, 1907. Colo. Univ., Studies 4: 239–259 (Colo. species).—Cockerell, 1910. Colo. Univ., Studies 7: 179–195 (Rocky Mountain species).—Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 698–760 (Conn. species).—Cockerell, 1928. Colo. Univ., Studies 99–126 (Colo. species).—Michener, 1944. Amer. Mus. Nat. Hist. Bul. 82: 157–326.

Family COLLETIDAE

Subfamily COLLETINAE[65]

[64] This section was prepared by Charles D. Michener except as follows: The Hylaeinae, Andreninae, Oxaeinae, and the parasitic bees except the Nomadini and *Psithyrus* (Bombini) are by E. Gorton Linsley. The Nomadini are by Hugo G. Rodeck, and the Bombini are by B. D. Burks. The sections prepared by Dr. Linsley and Dr. Michener were read by P. H. Timberlake. He and others have been kind enough to supply some additional data and to indicate a number of new synonyms as credited below.

[65] By Charles D. Michener, University of Kansas, Lawrence, Kans

Tribe CAUPOLICANINI

Genus CAUPOLICANA Spinola

Caupolicana Spinola, 1851. *In* Gay, Hist. fisico y politica de Chile, Zool., v. 6, p. 212.
Type: ***Caupolicana gayi*** Spinola. Desig. by Sandhouse, 1943.
Megacilissa Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 123.
Type: (***Megacilissa superba*** Smith)=***Caupolicana fulvicollis*** Spinola. Monob.
Megalocilissa Schulz, 1906. Spolia Hym., p. 243. Emend.

electa (Cresson). N. C., Ga. On flowers of *Gerardia.*
Megacilissa electa Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 221. ♂.

yarrowi (Cresson). Ariz., N. Mex., Tex., Mexico, ?Fla. Not oligolectic.
Megacilissa yarrowi Cresson, 1875. Rpt. Geog. Geol. Explor. and Survey west of 100th Meridian, v. 5, p. 723. ♀.

Genus PTILOGLOSSA Smith

Ptiloglossa Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 7.
Type: ***Ptiloglossa ducalis*** Smith. Monob.
Ptiloglossa subg. ***Ptiloglossodes*** Moure, 1945. Arq. do Mus. Paranaense 4: 153.
Type: ***Megacilissa tarsata*** Friese. Orig. desig.

arizonensis Timberlake. Ariz.
Ptiloglossa arizonensis Timberlake, 1946. Pan-Pacific Ent. 22: 157. ♀.

jonesi Timberlake. Ariz.
Ptiloglossa jonesi Timberlake, 1946. Pan-Pacific Ent. 22: 158. ♀.

Tribe COLLETINI

Genus COLLETES Latreille

Colletes Latreille, 1802. Hist. Nat. Fourmis, p. 423.
Type: ***Apis succincta*** Linnaeus. Monob.
Evodia Panzer, 1806. Krit. Rev. Insektenf. Deutschlands, v. 2, p. 207.
Type: (***Apis calendarum*** Panzer)=***Apis succincta*** Linnaeus. Monob.
Colletes subg. ***Rhinocolletes*** Cockerell, 1910. Entomologist 43: 242.
Type: ***Colletes nasutus*** Smith. Monob.
Colletes subg. ***Ptilopoda*** Friese, 1921. Stettin. Ent. Ztg. 82: 83.
Type: (***Colletes maculipennis*** Friese)=***Colletes spiloptera*** Cockerell. Monob.
Colletes subg. ***Denticolletes*** Noskiewicz, 1936. Prace Nauk. Wydawnictwo Towarzystwa Nauk. Lwowie (2) 3: 486.
Type: ***Colletes graeffei*** Alfken. Monob.
Colletes subg. ***Puncticolletes*** Noskiewicz, 1936. Prace Nauk. Wydawnictwo Towarzystwa Nauk. Lwowie (2) 3: 490. Proposed without genotype designation and therefore invalid under article 25C of International Rules of Zoological Nomenclature.
Revisions: Swenk, 1908. Nebr. Univ., Dept. Ent. Contrib. 1: 1–102, 3 pls.—Timberlake, 1943. Amer. Mus. Nat. Hist. Bul. 81: 385–410.
Taxonomy: Cockerell, 1905. Psyche 12: 85–87.—Robertson, 1904. Canad. Ent. 36: 275 (Ill. species).

Several of the subgenera cited in the above synonymy are doubtless valid, but as the subgeneric groupings of *Colletes* have not been properly worked out they are listed as synonyms.

Some species are polytropic, others oligotropic. Several of the principally autumnal species have small vernal broods.

aberrans Cockerell. Wis., N. Mex. On flowers of *Petalostemon.*
Colletes aberrans Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 44. ♀.

aestivalis Patton. Man., Wis., Ill., Conn., N. C. On flowers of *Heuchera*.
Colletes aestivalis Patton, 1879. Boston Soc. Nat. Hist. Proc. 20: 142. ♀.
Colletes heucherae Robertson, 1891. Amer. Ent. Soc. Trans. 18: 61. ♀ ♂.

albescens Cresson. Wis., Ill., Kans., Tex. On flowers of *Petalostemon*.
Colletes albescens Cresson, 1868. Boston Soc. Nat. Hist. Proc. 12: 168. ♀.

algarobiae Cockerell. N. Mex., south. Calif., north. Mexico, deserts.
Colletes algarobiae Cockerell, 1900. Entomologist 33: 244. ♂ ♀. [Type a ♀.]

americanus Cresson. United States east of Rocky Mts.; ?Ariz., ?Utah, ?Nev., ?Calif. On flowers of Astereae; Heliantheae.
Colletes americana Cresson, 1868. Boston Soc. Nat. Hist. Proc. 12: 167. ♀ ♂.

andrewsi Cockerell. Nebr., Colo.
Colletes Andrewsi Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 311. ♀.
Taxonomy: Timberlake, 1943. Amer. Mus. Nat. Hist. Bul. 81: 385, ♂.

angelicus Cockerell. Calif.
Colletes angelicus Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 32. ♂.

annae Cockerell. N. Mex.
Colletes annae Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 48. ♂.

apacheorum Timberlake. Ariz., N. Mex., Tex.
Colletes apacheorum Timberlake, 1943. Amer. Mus. Nat. Hist. Bul. 81: 401. ♀.

banksi Swenk. Va.
Colletes banksi Swenk, 1908. Nebr. Univ., Dept. Ent. Contrib. 1: 19. ♀.

birkmanni Swenk. Kans., Tex.
Colletes birkmanni Swenk, 1906. Ent. News 17: 259. ♀ ♂.

brevicornis Robertson. Va., N. C., Ga., Wis., Ill., La., Mont., Nebr., Colo., Okla., Tex. Usually visits flowers of *Campanula* and *Specularia*.
Colletes brevicornis Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 315. ♂.
Colletes opuntiae Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 312. ♂ ♀.
Colletes brachyceros Graenicher, 1935. Ent. Soc. Amer. Ann. 28: 301. Preocc.
Taxonomy: Robertson, 1900. Acad. Sci. St. Louis, Trans. 10: 51, ♀.

brevihirtus Timberlake. Colo.
Colletes brevihirtus Timberlake, 1943. Amer. Mus. Nat. Hist. Bul. 81: 395. ♂.

californicus Provancher. Calif. On flowers of *Phacelia*.
Colletes californica Provancher, 1895. Nat. Canad. 22: 1. ♀ ♂.
Taxonomy: Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 31.

chamaesarachae Cockerell. N. Mex.
Colletes chamaesarachae Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 49. ♀.

ciliatus Patton. Kans.
Colletes ciliata Patton, 1879. U. S. Geol. Geog. Survey Bul. 5: 369. ♀.

clypeonitens Swenk. Calif.
Colletes clypeonitens Swenk, 1906. Canad. Ent. 38: 39. ♀.

compactus compactus Cresson. N. S. to Ga., west to Wis., Mo., Colo., and Ariz. On flowers of Astereae; Heliantheae; Helenieae.
Colletes compactus Cresson, 1868. Boston Soc. Nat. Hist. Proc. 12: 166. ♀ ♂.
Biology: Rau and Rau, 1916. Jour. Anim. Behavior 6: 367.—Rau, 1922. Acad. Sci. St. Louis, Trans. 24 (7): 37.

compactus hesperius Swenk. B. C., Wash., Oreg.
Colletes hesperius Swenk, 1906. Ent. News 17: 257. ♀ ♂.

consors consors Cresson. Colo., Ariz., Tex.; north. Mexico.
Colletes consors Cresson, 1868. Boston Soc. Nat. Hist. Proc. 12: 168. ♂.
Colletes myroni Cockerell, 1908. Entomologist 41: 293. ♀.

consors pascoensis Cockerell. Wash., Oreg., Calif.
Colletes pascoensis Cockerell, 1898. Acad. Nat. Sci. Phila. Proc. 50: 51. ♂ ♀.

crawfordi Swenk. Tex. On flowers of *Physalis*.
Colletes crawfordi Swenk, 1906. Ent. News 17: 257. ♀.

crucis Cockerell. N. Mex.
Colletes crucis Cockerell, 1902. Ent. News 13: 304. ♂.

daleae Cockerell. N. Mex.; north. Mexico.
Colletes daleae Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 43. ♂.
Taxonomy: Cockerell, 1924. Calif. Acad. Sci. Proc. (4) 12: 531, 536. ♂ ♀.

delodontus Viereck. Wash., N. Mex.
Colletes delodontus Viereck, 1903. Amer. Ent. Soc. Trans. 29: 59. ♀.

distinctus Cresson. Md., Ga., Fla.
Colletes distinctus Cresson, 1868. Boston Soc. Nat. Hist. Proc. 12: 167. ♂.
Colletes nitidus Smith, 1879. Descr. New Species Hym. Coll. Brit. Mus., p. 1. ♀ ♂.

eriogoni Cockerell. Oreg., Calif., Nev., Utah, Colo.
Colletes eriogoni Cockerell, 1939. Pan-Pacific Ent. 15: 188. ♂ ♀.

eulophi albertensis Cockerell. Alta.
Colletes eulophi albertensis Cockerell, 1938. Canad. Ent. 70: 70. ♀.

eulophi eulophi Robertson. Va., N. C., Fla., Iowa, Ill., Ark., Colo.; northern records probably are based on *kincaidii*.
Colletes eulophi Robertson, 1891. Amer. Ent. Soc. Trans. 18: 61. ♀ ♂.
Colletes illinoiensis Robertson, 1891. Amer. Ent. Soc. Trans. 18: 62. ♀.

fraserae Swenk. N. Mex.
Colletes fraserae Swenk, 1908. Nebr. Univ., Dept. Ent. Contrib. 1: 41. ♂.

fulgidus Swenk. B. C., Wash., Oreg., Idaho, Wyo., Calif., Nev., Utah, Colo., Nebr., Tex. Principally on autumnal Compositae.
Colletes fulgidus Swenk, 1904. *In* Viereck, Canad. Ent. 36: 95. ♀ ♂.

gandialis Cockerell. Calif.
Colletes gandialis Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 32.
Colletes gaudialis Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 106. Emend.
Colletes arenicola Cockerell, 1926. Ann. Mag. Nat. Hist. (9) 18: 626. ♀.

gilensis Cockerell. Colo., N. Mex., Ariz.
Colletes gilensis Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 41. ♂.
Taxonomy: Swenk, 1908. Nebr. Univ., Dept. Ent. Contrib. 1: 23, ♀ ♂.

gypsicolens Cockerell. Calif., Utah, N. Mex., principally in deserts.
Colletes gypsicolens Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 47. ♂.
Taxonomy: Timberlake, 1943. Amer. Mus. Nat. Hist. Bul. 81: 400, ♂ ♀.

howardi Swenk. N. C. On flowers of *Petalostemon*.
Colletes howardi Swenk, 1925. Amer. Mus. Novitates 186: 5. ♀ ♂.

hyalinus Provancher. Que., Ont.
Colletes hyalinus Provancher, 1888. Addit. Corr. Fauna Ent. Canada Hym., p. 303. ♀ ♂.

inaequalis ferrugineus Swenk. N. J., Tex.
Colletes inaequalis ferrugineus Swenk, 1908. Nebr. Univ., Dept. Ent. Contrib. 1: 32. ♀ ♂.

inaequalis inaequalis Say. Que. to N. C., west to Wis., Kans., and Okla. A polytropic vernal species.
Colletes inaequalis Say, 1837. Boston Jour. Nat. Hist. 1: 391. ♀ ♂.
Colletes propinqua Cresson, 1868. Boston Soc. Nat. Hist. Proc. 12: 165. ♀.
Colletes canadensis Cresson, 1868. Boston Soc. Nat. Hist. Proc. 12: 166. ♂.
Biology Smith, 1898. Ent. News 9: 157 (as *compacta*).—Smith, 1900. N. Y. Ent. Soc. Jour. 8: 208 (as *compactus*).—Smith, 1901. N. Y. Ent. Soc. Jour. 9: 30 (as *compactus*).—Smith, 1901. N. Y. Ent. Soc. Jour. 9: 134.—Rau, 1922. Acad. Sci. St. Louis, Trans. 24 (7): 38.—Rau, 1934. Acad. Sci. St. Louis, Trans. 28: 219.

intermixtus Swenk. Colo., Ariz., N. Mex., Tex., south. Calif.; in L. Sonor. Zone.
Colletes intermixtus Swenk, 1905. Canad. Ent. 37: 302. ♀.
Colletes lippiarum Cockerell, 1909. Canad. Ent. 41: 394. ♀.
Taxonomy: Swenk, 1908. Nebr. Univ., Dept. Ent. Contrib. 1: 42. ♀ ♂.

kincaidii Cockerell. Minn., Wis., Mich., Ind., S. Dak., Wyo., Colo., N. Mex., Wash., Oreg., Calif.
Colletes kincaidii Cockerell, 1898. Acad. Nat. Sci. Phila. Proc. 50: 52. ♀ ♂.
Colletes sieverti Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 424. ♂.
Taxonomy: Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 314, ♂.

lacustris Swenk. Ont., Mich.
Colletes lacustris Swenk, 1906. Ent. News 17: 257. ♀ ♂.

latitarsis Robertson. Md. to Fla., west to Wis. and Colo. On flowers of *Physalis*, but also visits other flowers.
Colletes latitarsis Robertson, 1891. Amer. Ent. Soc. Trans. 18: 60. ♀ ♂.

louisae Cockerell. N. Mex.
Colletes louisae Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 46. ♂.

lutzi Timberlake. Idaho, Wyo., Colo.
Colletes lutzi Timberlake, 1943. Amer. Mus. Nat. Hist. Bul. 81: 390. ♀ ♂.

mandibularis Smith. Md., N. C., Ga., Fla.
Colletes mandibularis Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 5. ♂.

mesocopus Swenk. Ont., Que., Maine.
Colletes mesocopus Swenk, 1907. Canad. Ent. 39: 364. ♀ ♂.

nigrifrons Titus. Mont., Wyo., Colo., N. Mex., Calif.
Colletes nigrifrons Titus, 1900. Canad. Ent. 32: 304. ♀.
Colletes polemonii Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 425. ♂.
Colletes florissantia Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 425. ♂.

nudus Robertson. N. J., Md., Va., N. C., Ont., Wis., Ill., Ark., Miss., Colo., Tex.
Colletes nudus Robertson, 1898. Acad. Sci. St. Louis, Trans. 8: 43. ♀ ♂.
Colletes Vierecki Swenk, 1905. Canad. Ent. 37: 301. ♀.
Colletes hydrophilus Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 313. ♂.

ochraceus Swenk. Calif.
Colletes ochraceus Swenk, 1906. Canad. Ent. 38: 42. ♀.

paniscus Viereck. Wyo., Colo., N. Mex.
Colletes paniscus Viereck, 1903. Amer. Ent. Soc. Trans. 29: 60. ♂.
Colletes oromontis Viereck, 1903. Amer. Ent. Soc. Trans. 29: 61. ♀.
Colletes grisescens Cockerell, 1930. Amer. Mus. Novitates 397: 4. ♂.

petalostemonis Swenk. Wyo., Nebr., Colo. On flowers of *Petalostemon*.
Colletes petalostemonis Swenk, 1906. Canad. Ent. 38: 40. ♀ ♂.

phaceliae Cockerell. Man., Alta., Wash., Oreg., Idaho, Wyo., Utah, Colo., N. Mex.
Colletes phaceliae Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 315. ♀.
Colletes salicicola subsp. ***geranii*** Cockerell, 1906. Canad. Ent. 38: 163. ♂.

pleuralis Swenk. Mont.
Colletes pleuralis Swenk, 1906. Ent. News 17: 259. ♀ ♂.

productus Robertson. N. H., N. Y., Mass., N. C., Wis., Ill.
Colletes producta Robertson, 1891. Amer. Ent. Soc. Trans. 18: 62. ♂.
Taxonomy: Swenk, 1908. Nebr. Univ., Dept. Ent. Contrib. 1: 38, ♀ ♂.

prosopidis Cockerell. N. Mex., south. Calif., north. Mexico, deserts.
Colletes prosopidis Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 46. ♂.
Taxonomy: Cockerell, 1900. Entomologist 33: 244, ♀.

pulcher Swenk. Tex.
Colletes pulcher Swenk, 1906. Canad. Ent. 38: 43. ♂.

punctipennis Cresson. South. Tex., Mexico.
Colletes punctipennis Cresson, 1868. Boston Soc. Nat. Hist. Proc. 12: 169. ♀.
Taxonomy: Cockerell, 1914. Ann. Mag. Nat. Hist. (8) 14: 11, ♂.

robertsonii robertsonii Dalla Torre. S. Dak., Iowa, Ill. On flowers of *Petalostemon*.
Colletes punctata Robertson, 1891. Amer. Ent. Soc. Trans. 18: 92. ♂. Preocc.
Colletes robertsonii Dalla Torre, 1896. Cat. Hym., v. 10, p. 44. N. name.

robertsonii robustus Swenk. Nebr., Kans., Colo., N. Mex.; Mexico.
Colletes robustus Swenk, 1904. Ent. News 15: 251. ♀ ♂.

rufithorax Swenk. N. J.
Colletes rufithorax Swenk, 1906. Canad. Ent. 38: 42. ♀ ♂.

rufocinctus Cockerell. Wyo., Colo., Ariz.
Colletes rufocinctus Cockerell, 1929. Ann. Mag. Nat. Hist. (10) 4: 298. ♂.

salicicola Cockerell. N. Mex.
Colletes salicicola Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 50. ♀.

scopiventer Swenk. Tex.
Colletes scopiventer Swenk, 1908. Nebr. Univ., Dept. Ent. Contrib. 1: 46. ♀ ♂.

simulans armatus Patton. Maine to N. C., west to Miss., Nebr., Tex. On flowers of Astereae.
Colletes armata Patton, 1879. Boston Soc. Nat. Hist. Proc. 20: 143. ♀ ♂.
Colletes scitula Patton, 1879. Boston Soc. Nat. Hist. Proc. 20: 144. ♂.
Colletes spinosa Robertson, 1891. Amer. Ent. Soc. Proc. 18: 60. ♀ ♂.

simulans nevadensis Swenk. B. C., Calif., Nev., Utah.
Colletes nevadensis Swenk, 1908. Nebr. Univ., Dept. Ent. Contrib. 1: 52. ♂.

simulans simulans Cresson. Wyo., Nebr., Colo., N. Mex., B. C., Wash.
Colletes simulans Cresson, 1868. Boston Soc. Nat. Hist. Proc. 12: 168. ♂.
Colletes bigeloviae Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 40. ♀.
Colletes brevispinosus Viereck, 1903. Amer. Ent. Soc. Trans. 29: 62. ♀.
Colletes tegularis Swenk, 1905. Canad. Ent. 37: 304. ♀.
Colletes coloradensis Cockerell, 1933. Ent. Soc. Amer. Ann. 26: 41. ♂.

simulator Michener, n. name. Man., Ill., Tex., Ariz.
Colletes similis Robertson, 1904. Canad. Ent. 36: 276. ♀. Preocc. by Schenck, 1853.

skinneri Viereck. N. Mex.
Colletes skinneri Viereck, 1903. Amer. Ent. Soc. Trans. 29: 58. ♀ ♂.

sleveni Cockerell. Calif.
Colletes slevini Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 185. ♀.

solidaginis Swenk. Mass., N. Y., N. C., Ind., Nebr.
Colletes solidaginis Swenk, 1906. Canad. Ent. 38: 40. ♀ ♂.

speciosus Robertson. Ill.
Colletes speciosa Robertson, 1891. Amer. Ent. Soc. Trans. 18: 62. ♀.

spurcus Viereck. Mich., Colo., N. Mex.
Colletes spurcus Viereck, 1903. Amer. Ent. Soc. Trans. 29: 58. ♀ ♂.
Colletes cauponarius Cockerell, 1929. Ann. Mag. Nat. Hist. (10) 4: 297. ♀.
Colletes nitidicaudus Cockerell, 1929. Ann. Mag. Nat. Hist. (10) 4: 299. ♂.

stricklandi Cockerell. Alta.
Colletes stricklandi Cockerell, 1938. Canad. Ent. 70: 70. ♀.

susannae Swenk. Ill., S. Dak., Nebr., Kans., Colo. On flowers of *Petalostemon*.
Colletes susannae Swenk, 1925. Amer. Mus. Novitates 186: 1. ♀ ♂.

texanus Cresson. Tex.
Colletes texana Cresson, 1872. Amer. Ent. Soc. Trans. 4: 249. ♀.

thoracicus Smith. N. J., N. C., Fla.
Colletes thoracica Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 5. ♀ ♂.

trigonatus Cockerell. Colo.
Colletes trigonatus Cockerell, 1933. Ent. Soc. Amer. Ann. 26: 42. ♀.

truncatus Timberlake. Colo.
Colletes truncatus Timberlake, 1943. Amer. Mus. Nat. Hist. Bul. 81: 396. ♀.

tucsonensis Cockerell. N. Mex., Ariz., Calif., desert areas.
Colletes tucsonensis Cockerell, 1906. Canad. Ent. 38: 163. ♂.
Taxonomy: Timberlake, 1943. Amer. Mus. Nat. Hist. Bul. 81: 402, ♂ ♀.

utilis Cockerell. N. Mex.
Colletes utilis Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 39. ♀.

validus Cresson. Mass., Conn., N. Y., N. J., Pa., N. C., Ill. A vernal species of wet woods and swamplands.
Colletes validus Cresson, 1868. Boston Soc. Nat. Hist. Proc. 12: 165. ♀ ♂.

vicinalis Graenicher. Wis.
Colletes vicinalis Graenicher, 1911. Pub. Mus. City Milwaukee, Bul. 1: 228. ♀.

wickhami Timberlake. Colo., Calif.
Colletes wickhami Timberlake, 1943. Amer. Mus. Nat. Hist. Bul. 81: 394. ♂.

willistoni Robertson. N. C., Md., N. S., Que., Ont., Wis., Ill., Iowa, Mo., Nebr., Colo., Utah, Tex. Usually on flowers of *Physalis*.
Colletes Willistoni Robertson, 1891. Amer. Ent. Soc. Trans. 18: 60. ♀.
Taxonomy: Robertson, 1895. Amer. Ent. Soc. Trans. 22: 116, ♂.

wilmattae Cockerell. N. Mex. On flowers of *Petalostemon*.
Colletes wilmattae Cockerell, 1904. Canad. Ent. 36: 14. ♀.

wootoni Cockerell. N. Mex., Ariz.
Colletes wootoni Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 42. ♂.

zonatus Viereck. N. Mex.
Colletes zonatus Viereck, 1903. Amer. Ent. Soc. Trans. 29: 59. ♂.

Subfamily HYLAEINAE[66]

Genus HYLAEUS Fabricius

Hylaeus Fabricius, 1793. Ent. system., v. 2, p. 302.
Type: (***Prosopis annulata*** Fabricius)=***Apis annulata*** Linnaeus. Desig. by Latreille, 1810.
Prosopis Fabricius, 1804. Syst. Piezatorum, p. 293.
Type: (***Sphex signata*** Panzer)=***Mellinus bipunctatus*** Fabricius. Desig. by Morice and Durrant, 1914.
Prosapis Ashmead, 1894. Psyche 7: 43. Emend.
Prosopis subg. ***Paraprosopis*** Popov, 1939. Acad. des Sci. U. R. S. S. Compt. Rend. (Dok.) (n. s.) 25: 169.
Type: (***Hylaeus***) ***Prosopis pictipes*** (Nylander). Monob. and orig. desig.
Hylaeus subg. ***Metziella*** Michener, 1942. N. Y. Ent. Soc. Jour. 50: 273.
Type: ***Prosopis potens*** Metz. Monob. and orig. desig.
Hylaeus subg. ***Cephalylaeus*** Michener, 1942. N. Y. Ent. Soc. Jour. 50: 273.
Type: ***Prosopis basalis*** Smith. Orig. desig.
Revisions: Lovell, 1910. Psyche 17: 177 (Maine).—Metz, 1911. Amer. Ent. Soc. Trans. 37: 85 (spp.).—Meade-Waldo, 1923. Gen. Ins., v. 181, p. 29 (cat.).—Cockerell and Sumner, 1931. Amer. Mus. Novitates 490: 14 (Rocky Mt. ♀♀).—Michener, 1942. N. Y. Ent. Soc. Jour. 50: 273 (subgenera).

Subgeneric assignments, where they have been determined, are indicated in parentheses following the distribution in the specific headings.

aenigmus (Viereck). N. Mex. (***Prosopis***)
Prosopis aenigmus Viereck, 1903. Amer. Ent. Soc. Trans. 29: 64. ♂.

affinis (Smith). North America.
Prosopis affinis Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 24. ♀ (♂= *binghami*).
Taxonomy: Lovell, 1910. Psyche 17: 179, fig. 1, ♀ (type).

albertensis Cockerell. Alta. (***?Prosopis***)
Hylaeus albertensis Cockerell, 1937. Canad. Ent. 69: 126. ♂ ♀.

asininus (Cockerell and Casad). N. Mex. to Calif. and Baja Calif. (***Paraprosopis***)
Prosopis asininus Cockerell and Casad, 1895. Amer. Ent. Soc. Trans. 22: 299. ♂.
Prosopis bipes Cockerell and Casad, 1895. Amer. Ent. Soc. Trans. 22: 300. ♀.
Prosapis asinina var. ***bigeloviae*** Cockerell, 1898. N. Mex. Univ. Bul. 1: 72. ♀.

[66] By E. Gorton Linsley, University of California, Berkeley, Calif.

basalis (Smith). East. Canada and northeast. U. S. to B. C.; Calif., Colo., N. Mex. (***Cephalylaeus***)
Prosopis basalis Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 22. ♀ ♂.

binghami (Lovell). North America.
Prosopis binghami Lovell, 1910. Psyche 17: 180.

calvus (Metz). Calif. (***Paraprosopis***)
Prosopis calvus Metz, 1911. Amer. Ent. Soc. Trans. 37: 143. ♂.

coloradensis (Cockerell). Rocky Mt. Region. (***Paraprosopis***)
Prosapis coloradensis Cockerell, 1896. Psyche 7 (sup.): 30. ♂.

confluens (Smith). Fla. (***Prosopis***)
Prosopis confluens Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 24. ♀.

conspicuus (Metz). Calif., Oreg., Nev., Wyo. (***Hylaeus*** s. str.)
Prosopis conspicua Metz, 1911. Amer. Ent. Soc. Trans. 37: 114. ♂ ♀.

cookii (Metz). N. Mex. (***Paraprosopis***)
Prosopis cookii Metz, 1911. Amer. Ent. Soc. Trans. 37: 139. ♂ ♀.

cressoni cressoni (Cockerell). East. No. Amer. to Rocky Mts. (***Hylaeus*** s. str.)
Prosopis pygmaea Cresson, 1869. Boston Soc. Nat. Hist. Proc. 12: 272. Preocc.
Prosopis cressoni Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 131. N. name.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 36 (recorded as *pyganeus* (!) and *cressoni*).—Hicks, 1926. Colo. Univ., Studies 15: 221.

cressoni pasadenae (Cockerell). Pacific Coast. (***Hylaeus*** s. str.)
Prosopis pasadenae Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 30. ♂ ♀.

divergens (Cockerell). Nebr. to Ariz. (***Paraprosopis***)
Prosapis divergens Cockerell, 1896. Psyche 7 (sup.): 29. ♂.
Taxonomy: Cockerell and Sumner, 1931. Amer. Mus. Novitates 490: 7.

dunningi (Cockerell). S. Dak. and Nebr. to Utah. (***Prosopis***)
Prosapis ziziae dunningi Cockerell, 1898. Entomologist 31: 188. ♂.

ellipticus (Kirby). North America. Parasites: *Chrysis parvula* Fabr.; *Encyrtus* sp.; *Aetroxys analis* Ashm. (***Hylaeus*** s. str.)
Prosopis elliptica Kirby, 1827. Fauna Bor.-Amer., v. 4, p. 266. ♀.
Prosopis antennata Cresson, 1869. Boston Soc. Nat. Hist. Proc. 12: 271. ♂.
Prosopis varifrons Cresson, 1869. Boston Soc. Nat. Hist. Proc. 12: 270. ♀.
Taxonomy: Cockerell and Sumner, 1931. Amer. Mus. Novitates 490: 14.
Biology: Davidson, 1895. Psyche 7: 315–316.

episcopalis (Cockerell). Rocky Mts. to Tex. and Calif. (***Prosopis***)
Prosapis episcopalis Cockerell, 1896. Psyche 7 (sup.): 29. ♂.
Prosapis coquillettii Cockerell, 1896. Psyche 7 (sup.): 439. ♂.

flammipes (Robertson).
Prosapis flammipes Robertson, 1893. Amer. Ent. Soc. Trans. 20: 273. ♀.

gaigei (Cockerell). Mich. to Utah. (***Hylaeus*** s. str.)
Prosopis gaigei Cockerell, 1916. Mich. Univ. Mus. Zool. Occas. Papers 23: 2. ♀.

georgicus (Cockerell). Ga., Tex.
Prosapis georgica Cockerell, 1898. Psyche 7 (sup.): 438. ♂.
Prosopis georgica var. ***leeana*** Cockerell, 1909. Ann. Mag. Nat. Hist. (8) 4: 27. ♂.

giffardiellus Cockerell. Calif. (***Prosopis***)
Hylaeus giffardiellus Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 186. ♂.

grossicornis (Swenk and Cockerell). East. No. Amer. to Ga. and Nebr. (***Hylaeus*** s. str.)
Prosopis grossicornis Swenk and Cockerell, 1910. Ent. News 21: 67. ♂.

labiatifrons (Cockerell). Ga. (***Hylaeus*** s. str.)
Prosapis labiatifrons Cockerell, 1896. Psyche 7 (sup.): 437. ♂.

laciniatus Cockerell and Sumner. Colo. (***Hylaeus*** s. str.)
Hylaeus laciniatus Cockerell and Sumner, 1931. Amer. Mus. Novitates 490: 9. ♂.

magniclavis (Swenk and Cockerell). Nebr. (*Hylaeus* s. str.)
Prosopis cressoni var. *magniclavis* Swenk and Cockerell, 1910. Ent. News 21: 68. ♂ ♀.

maritimus Bridwell. Calif. (*Hylaeus* s. str.)
Hylaeus maritimus Bridwell, 1910. Hawaii. Ent. Soc. Proc. 4: 159. ♀ ♂.

megalotis (Swenk and Cockerell). Nebr., Colo. (*Paraprosopis*)
Prosopis megalotis Swenk and Cockerell, 1910. Ent. News 21: 69. ♂ ♀.

melitinus (Lovell). N. H.
Prosopis melitina Lovell, 1911. Ent. News 22: 214. ♀.

mesillae (Cockerell). N. Mex. and Colo. to Calif. (*Hylaeus* s. str.)
Prosopis subtilis Cockerell, 1895. Amer. Ent. Soc. Trans. 22: 295. ♀. Preocc.
Prosopis mesillae Cockerell, 1896. Canad. Ent. 28: 42. N. name.
Taxonomy: Crawford, 1913. Canad. Ent. 45: 154, fig. 3.

modestus citrinifrons (Cockerell). Wash. and B. C. to Alta.; Mont. (*Prosopis*)
Prosapis citrinifrons Cockerell, 1896. Psyche 7 (sup.): 27. ♂.

modestus modestus Say. East. Canada and Atlantic States, Colo., N. Mex. (*Prosopis*)
Hylaeus modestus Say, 1837. Boston Jour. Nat. Hist. 4: 392. ♀ (not ♂).
Prosopis affinis Cresson, 1869. Boston Soc. Nat. Hist. Proc. 12: 270. ♀ ♂.
Prosopis sparsa Cresson, 1869. Boston Soc. Nat. Hist. Proc. 12: 271.
Prosopis floridanus Robertson, 1893. Amer. Ent. Soc. Trans. 20: 273. ♀.
Prosapis pennsylvanica Cockerell, 1896. Psyche 7: 439. ♂.
Prosopis Illinoisensis Robertson, 1896. Canad. Ent. 28: 138. ♂.
Prosopis nucleolus Viereck, 1903. Amer. Ent. Soc. Trans. 29: 64. ♀.
Prosopis sayi Robertson, 1904. Canad. Ent. 36: 274, 275. ♀ ♂.
Prosopis eulophi Robertson, 1905. Canad. Ent. 37: 236. ♀ ♂.
Prosopis minyra Lovell, 1909. Ent. News 20: 413. ♂.
Prosopis supracurta Swenk and Cockerell, 1910. Ent. News 21: 71. ♂.
Taxonomy: Robertson, 1901. Ent. News 12: 78.—Lovell, 1910. Psyche 17: 182.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 71.—Rau, 1930. Psyche 37: 173–175.

nelumbonis (Robertson). Ill. and Ohio to La., Ala. (*Prosopis*)
Prosopis nelumbonis Robertson, 1890. Amer. Ent. Soc. Trans. 17: 316. ♀.
Prosopis fossata Metz, 1911. Amer. Ent. Soc. Trans. 37: 135. ♂ ♀.
Taxonomy: Crawford, 1913. Canad. Ent. 45: 155.

nevadensis (Cockerell). Nev., Calif. (*Paraprosopis*)
Prosapis nevadensis Cockerell, 1896. Psyche 7 (sup.): 32. ♂.
Prosopis hesperiphila Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 29. ♂.

nunenmacheri Bridwell. Calif. (*Cephalylaeus*)
Hylaeus Nunenmacheri Bridwell, 1919. Hawaii. Ent. Soc. Proc. 4: 157. ♀ ♂.

oregonensis Bridwell. Oreg. (*Paraprosopis*)
Hylaeus oregonensis Bridwell, 1919. Hawaii. Ent. Soc. Proc. 4: 160. ♀ ♂.

perparvus Cockerell and Sumner. Colo. (*Paraprosopis*)
Hylaeus perparvus Cockerell and Sumner, 1931. Amer. Mus. Novitates 490: 10. ♂.

personatellus (Cockerell). Colo., Calif. (*Paraprosopis*)
Prosopis personatellus Cockerell, 1915. Ann. Mag. Nat. Hist. (8) 16: 485. ♀.

polifolii catalinensis Cockerell. Calif. (*Paraprosopis*).
Hylaeus polifolii catalinensis Cockerell, 1938. Ann. Mag. Nat. Hist. (11) 2: 150. ♂ ♀.

polifolii polifolii (Cockerell). Calif. (*Paraprosopis*)
Prosopis polifolii Cockerell, 1901. Canad. Ent. 33: 281. ♂.

potens (Metz). Que. (*Metziella*)
Prosopis potens Metz, 1911. Amer. Ent. Soc. Trans. 37: 103. ♂.

repolitus Cockerell and Sumner. Utah. (*?Paraprosopis*)
Hylaeus repolitus Cockerell and Sumner, 1931. Amer. Mus. Novitates 490: 13. ♀.

rudbeckiae (Cockerell and Casad). Pacific Coast and Rocky Mts. to Ala. (***Hylaeus*** s. str.)
Prosopis rudbeckiae Cockerell and Casad, 1895. Amer. Ent. Soc. Trans. 22: 380. ♂.
Prosapis bakeri Cockerell, 1896. Psyche 7 (sup.): 26. ♂.
Prosapis digitatus Cockerell, 1896. Psyche 7 (sup.): 30. ♂.
Prosapis rudbeckiae ruidosensis Cockerell, 1896. Psyche 7 (sup.): 30. ♂.
Prosapis rudbeckiae subdigitata Cockerell, 1896. Psyche 7 (sup.): 31. ♂.
Prosopis digitata var. ***fedorica*** Cockerell, 1909. Ann. Mag. Nat. Hist. (8) 4: 27. ♂.
Prosopis rudbeckiae var. ***granulatus*** Metz, 1911. Amer. Ent. Soc. Trans. 37: 114. ♂.

rugulosus (Cockerell). Colo. (***?Prosopis***)
Prosapis rugulosus Cockerell, 1896. Psyche 7 (sup.): 28. ♂.
Prosapis rugulosus var. ***fallax*** Cockerell, 1896. Psyche 7 (sup.): 28. ♂.

saniculae (Robertson). Maine to Iowa. (***Hylaeus*** s. str.)
Prosopis saniculae Robertson, 1896. Canad. Ent. 28: 137. ♂ ♀.

schwarzii (Cockerell). Fla. (***Prosopis***)
Prosapis Schwarzii Cockerell, 1896. Ent. Monthly Mag. 32: 218. ♀.

seclusus Cockerell and Sumner. Colo. (***Paraprosopis***)
Hylaeus seclusus Cockerell and Sumner, 1931. Amer. Mus. Novitates 420: 12. ♂.

stevensi (Crawford). N. Dak. to Idaho, Utah, Colo., Calif. (***Hylaeus*** s. str.)
Prosopis stevensi Crawford, 1913. Canad. Ent. 45: 155. ♂ ♀.

subtristis (Swenk and Cockerell). Nebr.
Prosopis subtristis Swenk and Cockerell, 1910. Ent. News 21: 70. ♀.

suffusus (Cockerell). Nev. (***Paraprosopis***)
Prosapis suffusa Cockerell, 1896. Psyche 7 (sup.): 32. ♂.

teleporus (Lovell). N. C. (***Hylaeus*** s. str.)
Prosopis telepora Lovell, 1911. Ent. News 22: 213. ♀ ♂.

thaspii (Robertson). Ill.
Prosopis thaspii Robertson, 1898. Acad. Sci. St. Louis, Trans. 8: 43. ♀.

triangularis (Cockerell). Ga. (***?Prosopis***)
Prosapis triangularis Cockerell, 1896. Psyche 7 (sup.): 31. ♂.

tuertonis (Cockerell). N. Mex. (***?Paraprosopis***)
Prosopis tuertonis Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 423. ♀.

universitatis (Cockerell). N. Mex. (***Prosopis***)
Prosopis universitatis Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 225.

verticalis tridentulus (Cockerell). Rocky Mts. and Pacific Coast. (***Hylaeus*** s. str.)
Prosapis tridentulus Cockerell, 1896. Psyche 7 (sup.): 27. ♂.
Prosapis tridens Cockerell, 1896. Psyche 7 (sup.): 28. ♂.
Taxonomy: Cockerell and Sumner, 1931. Amer. Mus. Novitates 490: 3

verticalis verticalis (Cresson). East. U. S. (***Hylaeus*** s. str.)
Prosopis verticalis Cresson, 1869. Boston Soc. Nat. Hist. Proc. 12: 271. ♂

wootoni (Cockerell). N. Mex. to Oreg. and Wyo. (***Paraprosopis***)
Prosapis wootoni Cockerell, 1896. Psyche 7 (sup.): 26. ♂.
Prosopis clandestinus Vereck, 1903. Amer. Ent. Soc. Trans. 17: 65. ♂.
Prosopis excavata Swenk and Cockerell, 1910. Ent. News 21: 70. ♀.

ziziae (Robertson). East. Canada and Atlantic States to Kans. (***Prosopis***)
Prosopis ziziae Robertson, 1896. Canad. Ent. 28: 136. ♀ ♂.

Nomen Nudum in Hylaeus Fabricius

Hylaeus malachitus Illiger, 1806. Mag. Insektenk. 5: 59. ♀.

Family ANDRENIDAE

Subfamily ANDRENINAE[67]

[67] By E. Gorton Linsley, University of California.

Genus ANDRENA Fabricius

Andrena Fabricius, 1775. Systema Ent., p. 376.
Type: ***Apis helvola*** Linnaeus. Desig. by Viereck, 1912.
Anthrena Illiger, 1801. Mag. Insektenk. 1: 127. Emend.
Anthocharessa Gistel, 1850. Isis (Encycl. Ztschr.) 6: 82.
Type: ***Apis helvola*** Linnaeus. Autob.
Campylogaster Dours, 1873. Rev. Mag. Zool. (3) 1: 286.
Type: (***Andrena (Campylogaster) fulvo-cristatus*** Dours)=***Andrena erberi*** Morawitz. Desig. by Sandhouse, 1939.
Biareolina Dours, 1873. Rev. Mag. Zool. (3) 1: 288.
Type: ***Biareolina neglecta*** Dours. Desig. by Sandhouse, 1939.
Melandrena Perez, 1890. Actes Soc. Linneene Bordeaux 44: 170.
Type: ***Andrena morio*** Brullé. Desig. by Hedicke, 1933.
Hoplandrena Perez, 1890. Actes Soc. Linneene Bordeaux 44: 170.
Type: (***Melitta***) ***Andrena trimmerana*** (Kirby). Desig. by Hedicke, 1933.
Simandrena Perez, 1890. Actes Soc. Linneene Bordeaux 44: 174.
Type: ***Andrena propinqua*** Schenck. Desig. by Hedicke, 1933.
Holandrena Perez, 1890. Actes Soc. Linneene Bordeaux 44: 176.
Type: (***Melitta***) ***Andrena labialis*** (Kirby). Desig. by Hedicke, 1933.
Scrapteroides Gribodo, 1894. Soc. Ent. Ital. Bol. 26: 112.
Type: ***Scrapteroides differmis*** Gribodo. Monob.
Melittidia Dalla Torre, 1896. Cat. Hym., v. 10, p. 99. Emend.
Parandrena Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 337.
Type: ***Panurgus andrenoides*** Cresson. Desig. by Cockerell, 1897.
Callandrena Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 186.
Type: ***Panurgus manifestus*** Fox. Monob.
Micrandrena Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 89.
Type: (***Micrandrena pacifica*** Ashmead)=***Andrena melanochroa*** Cockerell. Monob. and orig. desig.
Iomelissa Robertson, 1900. Acad. Sci. St. Louis, Trans. 10. 50.
Type: ***Andrena violae*** Robertson. Monob.
Trachandrena Robertson, 1902. Amer. Ent. Soc. Trans. 28: 189.
Type: ***Andrena rugosa*** Robertson. Orig. desig.
Ptilandrena Robertson, 1902. Amer. Ent. Soc. Trans. 28: 192.
Type: ***Andrena erigeniae*** Robertson. Orig. desig.
Opandrena Robertson, 1902. Amer. Ent. Soc. Trans. 28: 193.
Type: ***Andrena cressonii*** Robertson. Orig. desig.
Pterandrena Robertson, 1902. Amer. Ent. Soc. Trans. 28: 193.
Type: ***Andrena pulchella*** Robertson. Orig. desig.
Diandrena Cockerell, 1903. Psyche 10: 75.
Type: ***Panurgus chalybaeus*** Cresson. Orig. desig.
Andrena subg. ***Gonandrena*** Viereck, 1917. Amer. Ent. Soc. Trans. 43: 390.
Type: ***Andrena (Gonandrena) persimulata*** Viereck. Monob.
Andrena subg. ***Scrapteropsis*** Viereck, 1922. Boston Soc. Nat. Hist. Occas. Papers 5: 42.
Type: ***Andrena (Scrapteropsis) fenningeri*** Viereck. Monob.
Andrena subg. ***Conandrena*** Viereck, 1924. Canad. Ent. 56: 20.
Type: ***Andrena bradleyi*** Viereck. Monob. and orig. desig.
Andrena subg. ***Dactylandrena*** Viereck, 1924. Canad. Ent. 56: 20.
Type: ***Andrena (Dactylandrena) maura*** Viereck. Monob. and orig. desig.
Andrena subg. ***Tropandrena*** Viereck, 1924. Canad. Ent. 56: 21.
Type: ***Andrena fragilis*** Smith. Monob. and orig. desig.
Andrena subg. ***Platandrena*** Viereck, 1924. Canad. Ent. 56: 21.
Type: ***Andrena nasonii*** Robertson=(***Andrena vestita*** Provancher). Monob. and orig. desig.
Andrena subg. ***Andrenella*** Hedicke, 1933. Berlin Zool. Mus. Mitt. 19: 210.
Type: (***Melitta***) ***Andrena minutula*** (Kirby). Orig. desig.
Andrena subg. ***Charitandrena*** Hedicke, 1933. Berlin Zool. Mus. Mitt. 19: 210.
Type: (***Nomada***) ***Andrena hattorfiana*** (Fabricius). Orig. desig.
Andrena subg. ***Chrysandrena*** Hedicke, 1933. Berlin Zool. Mus. Mitt. 19: 211.
Type: (***Apis***) ***Andrena fulvago*** (Christ). Orig. desig.

Andrena subg. ***Cnemidandrena*** Hedicke, 1933. Berlin Zool. Mus. Mitt. 19: 212.
Type: (***Melitta***) ***Andrena nigriceps*** (Kirby). Orig. desig.

Andrena subg. ***Euandrena*** Hedicke, 1933. Berlin Zool. Mus. Mitt. 19: 212.
Type: ***Andrena bicolor*** Fabricius. Orig. desig.

Andrena subg. ***Glyphandrena*** Hedicke, 1933. Berlin Zool. Mus. Mitt. 19: 213.
Type: (***Apis***) ***Andrena carbonaria*** (Linnaeus). Orig. desig.

Andrena subg. ***Gymnandrena*** Hedicke, 1933. Berlin Zool. Mus. Mitt. 19: 213.
Type: (***Apis***) ***Andrena thoracica*** (Fabricius). Orig. desig.

Andrena subg. ***Lepidandrena*** Hedicke, 1933. Berlin Zool. Mus. Mitt. 19: 215.
Type: ***Andrena curvungula*** Thompson. Orig. desig.

Andrena subg. ***Leucandrena*** Hedicke, 1933. Berlin Zool. Mus. Mitt. 19: 215.
Type: (***Apis***) ***Andrena sericea*** (Christ). Orig. desig.

Andrena subg. ***Plastandrena*** Hedicke, 1933. Berlin Zool. Mus. Mitt. 19: 217.
Type: (***Melitta***) ***Andrena tibialis*** (Kirby). Orig. desig.

Andrena subg. ***Poecilandrena*** Hedicke, 1933. Berlin Zool. Mus. Mitt. 19: 218.
Type: ***Andrena labiata*** Fabricius. Orig. desig.

Andrena subg. ***Schizandrena*** Hedicke, 1933. Berlin Zool. Mus. Mitt. 19: 218.
Type: ***Andrena aulica*** Morawitz. Orig. desig.

Andrena subg. ***Taeniandrena*** Hedicke, 1933. Berlin Zool. Mus. Mitt. 19: 219.
Type: (***Melitta***) ***Andrena ovatula*** (Kirby). Orig. desig.

Andrena subg. ***Zonandrena*** Hedicke, 1933. Berlin Zool. Mus. Mitt. 19: 220.
Type: ***Andrena flavipes*** Panzer. Orig. desig.

Andrena subg. ***Scaphandrena*** Lanham, 1949. Calif. Univ., Pubs., Ent. 8: 200.
Type: ***Andrena montrosensis*** Viereck and Cockerell. Orig. desig.

Andrena subg. ***Aporandrena*** Lanham, 1949. Calif. Univ., Pubs., Ent. 8: 201.
Type: ***Andrena coactipostica*** Viereck. Monob. and orig. desig.

Andrena subg. ***Elandrena*** Lanham, 1949. Calif. Univ., Pubs., Ent. 8: 203.
Type: ***Andrena amplificata*** Cockerell. Orig. desig.

Andrena subg. ***Oligandrena*** Lanham, 1949. Calif. Univ., Pubs., Ent. 8: 207.
Type: ***Andrena macrocephala*** Cockerell. Orig. desig.

Andrena subg. ***Hesperandrena*** Timberlake, 1949. *In* Lanham, Calif. Univ., Pubs., Ent. 8: 208.
Type: ***Andrena escondida*** Cockerell. Orig. desig.

Andrena subg. ***Stenandrena*** Timberlake, 1949. *In* Lanham, Calif. Univ., Pubs., Ent. 8: 213.
Type: ***Andrena pallidifovea*** (Viereck). Orig. desig.

Andrena subg. ***Thysandrena*** Lanham, 1949. Calif. Univ., Pubs., Ent. 8: 213.
Type: ***Andrena candida*** Smith. Orig. desig.

Andrena subg. ***Mimandrena*** Lanham, 1949. Calif. Univ., Pubs., Ent. 8: 217.
Type: ***Andrena imitatrix*** Cresson. Orig. desig.

Andrena subg. ***Xanthandrena*** Lanham, 1949. Calif. Univ., Pubs. Ent. 8: 218.
Type: ***Andrena auricoma*** Smith. Orig. desig.

Andrena subg. ***Cryptandrena*** Lanham, 1949. Calif. Univ., Pubs., Ent. 8: 222.
Type: ***Andrena carlini*** Cockerell. Orig. desig.

Andrena subg. ***Scoliandrena*** Lanham, 1949. Calif. Univ., Pubs., Ent. 8: 223.
Type: ***Andrena osmioides*** Cockerell. Monob. and orig. desig.

Taxonomy: Cockerell, 1898. N. Mex. Univ. Bul. 1: 48 (N. Mex.) (reprint: Denison Univ. Sci. Labs. Bul. 11: 48).—Cockerell, 1899. Ent. News 10: 253 (misc.).—Cockerell, 1901. Ent. News 12: 74 (misc.).—Cockerell, 1901. N. Y. Ent. Soc. Jour. 9: 132 (N. J.).—Robertson, 1902. Amer. Ent. Soc. Trans. 28: 187 (Ill.).—Bruner, 1903. Amer. Ent. Soc. Trans. 29: 240 (N. Amer.).—Viereck, 1904. Canad. Ent. 36: 157, 189, 221 (Pacific Northwest).—Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 429 (Colo.).—Viereck, 1907. Ent. News 18: 280 (Conn.).—Cockerell, 1907. Colo. Univ., Studies 4: 244 (Colo.).—Cockerell, 1914. Ann. Mag. Nat. Hist. (8) 14: 10 (Colo.).—Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 1 (Rocky Mts.).—Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 709 (Conn.).—Viereck, 1924. Canad. Ent. 56: 20 (subgenera).—Cockerell, 1930. Pan-Pacific Ent. 7: 7 (misc.).—Cockerell, 1931. Amer. Mus. Novitates 458: 13, 16 (misc.).—Cockerell, 1932. Canad. Ent. 16: 157 (*Micrandrena*).—Cockerell, 1932. Pan-Pacific Ent. 8: 175, 177 (misc.).—Cockerell, 1932. Canad. Ent. 16: 285 (*sladeni* group).—Atwood, 1934. Canad. Jour. Res. 10 (2): 206 (Nova Scotia).—Cockerell, 1937. Amer. Mus. Novitates 948: 15 (*Diandrena*, pars).—Linsley, 1937. Calif. Acad. Sci. Proc. (4) 23: 263 (black spp.).—

Lanham, 1941. Ent. Soc. Amer. Ann. 34: 704 (Colo.).—Lanham, 1949. Pan-Pacific Ent. 25: 34 (females of *carlini* group).—Lanham, 1949. Calif. Univ., Pubs., Ent. 8: 183–238 (subgenera).

Subgeneric assignments, where they have been determined, are indicated in parentheses following the distribution in the specific headings.

abacta Viereck. Tex. (*?Micrandrena*)
Andrena (*Andrena*) *abacta* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 365. ♀.

abjuncta (Cockerell). Colo., N. Mex. (*Trachandrena*)
Trachandrena abjuncta Cockerell, 1929. N. Y. Ent. Soc. Jour. 37: 445. ♀.
Taxonomy: Cockerell, 1937. Ent. News 49: 257, ♀.

ablegata (Cockerell). Wyo. (*Diandrena*)
Diandrena ablegata Cockerell, 1922. Amer. Mus. Novitates 40: 1. ♀.

accepta Viereck. Atlantic Coast to Utah and north. Mexico. (*Pterandrena*)
Andrena pulchella Robertson, 1891. Amer. Ent. Soc. Trans. 18: 57. ♀. Preocc.
Andrena accepta Viereck, 1916. Biol. Soc. Wash. Proc. 29: 127. N. name.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 193, 194, ♀ ♂ (key).

acrypta (Viereck). B. C. to Oreg. (*Ptilandrena*)
Pterandrena acrypta Viereck, 1904. Canad. Ent. 36: 227. ♀.

adelae Viereck. Md. (*Thysandrena*)
Andrena (*Andrena*) *adelae* Viereck, 1922. Boston Soc. Nat. Hist. Occas. Papers 5: 37. ♀.

advarians Viereck. B. C. (*Andrena* s. str.)
Andrena advarians Viereck, 1904. Canad. Ent. 36: 192, 224. ♀ ♂.

agricolarum Viereck and Cockerell. Colo.
Andrena agricolarum Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 29. ♂.

alamonis Viereck. N. Mex., Tex. (*Trachandrena*)
Andrena (*Scrapter*) *alamonis* Viereck, 1917. Acad. Nat. Sci. Phila. Proc. 68: 599. ♀.

albiculta Viereck. Calif. (*Elandrena*)
Andrena albiculta Viereck, 1917. Amer. Ent. Soc. Trans. 43: 366. ♀.

albihirta (Ashmead). Rocky Mts. and Pacific Coast. (*Andrena* s. str.)
Cilissa albihirta Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 5. ♀.
Taxonomy: Cockerell, 1911. Ann. Mag. Nat. Hist. (8) 7: 232, ♂.—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 705, 708, ♀ ♂ (key).

albisigna Viereck. N. H. (*?Leucandrena*)
Andrena (*Andrena*) *albisigna* Viereck, 1922. Boston Soc. Nat. Hist. Occas. Papers 5: 38. ♀.

albofoveata (Graenicher). Ont. to Pa. and Wis. south to Iowa. On flowers of Umbelliferae. (*Mimandrena*)
Trachandrena albofoveata Graenicher, 1903. Canad. Ent. 35: 166. ♀.

albosellata Cockerell. Wyo., Colo. (*Andrena* s. str.)
Andrena albosellata Cockerell, 1931. Amer. Mus. Novitates 458: 7. ♀.

albuginosa (Viereck). Oreg.
Pterandrena albuginosa Viereck, 1904. Canad. Ent. 36: 227, 228. ♀.

algida Smith. N. S. (Hudson's Bay). (*Gonandrena*)
Andrena algida Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 116. ♀ ♂.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 150 (type).—Cockerell, 1906. Psyche 13: 7, ♀ (type).—Atwood, 1934. Canad. Jour. Res. 10: 207, 209, figs. ♀ ♂.

aliciae Robertson. Nebr. and Wis. to Md., Va., Ga. On flowers of Heliantheae. (*Pterandrena*)
Andrena aliciae Robertson, 1891. Amer. Ent. Soc. Trans. 18: 57. ♀ ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 193, ♀ ♂ (key).

aliciarum Cockerell. N. Mex. (*Pterandrena*)
Andrena aliciarum Cockerell, 1897. Entomologist 30: 138. ♀.
Taxonomy: Cockerell, 1899. Ent. News 10: 254, ♂.

aliena Smith. Fla.
Andrena aliena Smith, 1853. Cat. Hym. Brit. Mus. v. 1, p. 113. ♀.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 123 (type).—Cockerell, 1906. Psyche 13: 33 (type).

alleghaniensis Viereck. N. H. to Pa. and Wis. (*Trachandrena*)
Andrena (*Trachandrena*) *alleghaniensis* Viereck, 1907. Ent. News 18: 280, 286. ♀.

amphibola (Viereck). Wash., Oreg. (*Trachandrena*)
Trachandrena amphibola Viereck, 1904. Canad. Ent. 35: 158, 159. ♀ ♂.

amplificata Cockerell. Colo., B. C. (*Elandrena*)
Andrena amplificata Cockerell, 1910. Canad. Ent. 42: 368. ♀ ♂.

andrenoides (Cresson). Bor. U. S. and South. Canada. On flowers of *Salix*. (*Parandrena*)
Panurgus andrenoides Cresson, 1878. Amer. Ent. Soc. Trans. 7: 62. ♂.
Panurgus rufocinctus Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 4. ♀.
Andrena andrenoides f. *bicolor* Robertson, 1898. Acad. Sci. St. Louis, Trans. 8: 47. Preocc.
Parandrena andrenoides var. *clarigastra* Viereck, 1908. Ent. News 19: 42. N. name.
Biology: Salt, 1927. Jour. Exp. Zool. 48: 250 (stylopization).

angusi Viereck. N. Y.
Andrena angusi Viereck, 1907. Ent. News 18: 284. ♀.

angustella Cockerell. Calif.
Andrena angustella Cockerell, 1936. Pan-Pacific Ent. 12: 136. ♂.

angustifovea Viereck. B. C. to Oreg.
Andrena angustifovea Viereck, 1904. Canad. Ent. 36: 194. ♂.

angustitarsata Viereck. Wash. to Calif. (*Simandrena*)
Andrena angustitarsata Viereck, 1904. Canad. Ent. 36: 189, 196. ♀.
Pterandrena nudiscopa Viereck, 1904. Canad. Ent. 36: 227, 228. ♀.

anisochlora Cockerell. Oreg., Calif. (*?Oligandrena*)
Andrena anisochlora Cockerell, 1936. Pan-Pacific Ent. 12: 137. ♀.
Andrena (*Micrandrena*) *dinognatha* Timberlake, 1938. Pan-Pacific Ent. 14: 26. ♂. N. syn. [Lanham].

anograe Cockerell. Colo. (*Melandrena*)
Andrena anograe Cockerell, 1901. Canad. Ent. 33: 154. ♀.
Taxonomy: Cockerell, 1934. Amer. Mus. Novitates 697: 2.

antonitonis Viereck and Cockerell. Colo. (*Cnemidandrena*)
Andrena antonitonis Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 56. ♀.

apacheorum Cockerell. Rocky Mts. to N. Mex., Ariz. (*Cnemidandrena*)
Andrena apacheorum Cockerell, 1897. Entomologist 30: 306. ♀.
Taxonomy: Cockerell, 1931. Amer. Mus. Novitates 458: 14, 15, ♀ ♂ (key).
Biology: Clements and Long, 1923. Carnegie Inst. Wash., Pub. 336: 249 (ecol.).—Hicks, 1926. Univ. Colo., Studies 15: 221 (habits).

arabis Robertson. Conn. to Va., west to Ill. On flowers of Cruciferae. (*Scaphandrena*)
Andrena arabis Robertson, 1897. Acad. Sci. St. Louis Trans. 7: 334. ♀.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 191, ♀ (key).—Viereck, 1907. Ent. News 18: 282, ♀ (key).

argemonis Cockerell. Colo. to N. Mex. (*Schizandrena*)
Andrena argemonis Cockerell, 1896. Ann. Mag. Nat. Hist. (6) 18: 80. ♂.
Taxonomy: Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 2: 449, ♀.—Cockerell, 1931. Amer. Mus. Novitates 458: 16, ♀ ♂ (key).—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 704, 707, ♀ ♂.

argentiscopa Viereck. Calif. (*Thysandrena*)
Andrena (*Andrena*) *angentiscopa* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 368. ♀.

asmi Viereck. Wash. (*Andrena* s. str.)
Andrena asmi Viereck, 1904. Canad. Ent. 36: 192, 225. ♀ ♂.

asteris Robertson. Maine to N. C. and Minn. On flowers of Astereae. (*Pterandrena*)
Andrena asteris Robertson, 1891. Amer. Ent. Soc. Trans. 18: 56. ♀ ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 194, ♀ ♂ (key).
Biology: Salt, 1927. Jour. Expt. Zool. 48: 251 (stylopization).—Britton, 1937. Conn. (State) Agr. Expt. Sta. Bul. 408: 261 (economic).

astragali Viereck and Cockerell. Nebr. (*Xanthandrena*)
Andrena astragali Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 46. ♀.

atala Viereck. N. Mex. (*Ptilandrena*)
Andrena atala Viereck, 1903. Amer. Ent. Soc. Trans. 23: 54. ♀.
Taxonomy: Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 430, ♀ ♂.

atypica (Cockerell). Calif.; Baja Calif. (*Diandrena*)
Parandrena atypica Cockerell, 1941. San Diego Soc. Nat. Hist. Trans. 9: 347. ♀.

aureocincta Cockerell. N. Mex.
Andrena aureocincta Cockerell, 1896. Ann. Mag. Nat. Hist. (6) 18: 88. ♀ ♂.
Taxonomy: Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 48, ♂ (key).

auricauda (Viereck). Wash. to north. Calif., Colo. (*Trachandrena*)
Trachandrena auricauda Viereck, 1904. Canad. Ent. 35: 159, 161. ♀.

auricoma Smith. B. C. to south. Calif. and Colo. (*Xanthandrena*)
Andrena auricoma Smith, 1879. Descr. New Species Hym. Brit. Mus., p. 56. ♂.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 155, ♂ (notes on type).—Cockerell, 1906. Psyche 13: 8 (notes on type).—Viereck, 1904. Canad. Ent. 36: 193, ♀ ♂ (key).—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 706, 708, ♀ ♂ (key).

austrocalifornica Viereck. Calif. (*Diandrena*)
Andrena (*Parandrena*) *austrocalifornica* Viereck, 1917. Acad. Nat. Sci. Phila. Proc. 68: 587. ♀.

autumnalis Viereck and Cockerell. Nebr. (*Cnemidandrena*)
Andrena autumnalis Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 44. ♀.

azygos Viereck. N. Mex.
Andrena (*Andrena*) *azygos* Viereck, 1917. Acad. Nat. Sci. Phila. Proc. 68: 550. ♂.

baeriae Timberlake. Calif. On flowers of *Baeria*. (*Hesperandrena*)
Andrena baeriae Timberlake, 1941. South. Calif. Acad. Sci. Bul. 39: 194. ♀ ♂.

banffensis Viereck. Alta. (*Andrena* s. str.)
Andrena (*Andrena*) *banffensis* Viereck, 1924. Canad. Ent. 56: 32. ♀.

banksi Malloch. Tex. to Md.
Andrena banksi Malloch, 1917. Brooklyn Ent. Soc. Bul. 12: 89. ♂ ♀.

barbarica Viereck. Ont. and east. U. S. to Kans. and Tex. (*Gonandrena*)
Andrena (*Andrena*) *barbarica* Viereck, 1917. Amer. Ent. Soc. Trans. 43. 369. ♀.

barberi Cockerell. N. Mex. (*Pterandrena*)
Andrena barberi Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 2: 448. ♀ ♂.
Taxonomy: Cockerell, 1931. Amer. Mus. Novitates 458: 14, ♀ (key).

beatula (Cockerell). Calif. On flowers of *Baeria*. (*Diandrena*)
Diandrena beatula Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 48. ♀.
Diandrena clariventris Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 50. ♂. N. syn. (Timberlake).

bebbiana Viereck and Cockerell. Colo. (*Andrena* s. str.)
Andrena bebbiana Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 39. ♀.
Taxonomy: Cockerell, 1931. Amer. Mus. Novitates 458: 8.—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 705, ♀ (key).

beckeri Cockerell. Colo. (***Thysandrena***)
Andrena beckeri Cockerell, 1921. Ann. Mag. Nat. Hist. (9) 7: 211. ♀.
Taxonomy: Cockerell, 1932. Pan-Pacific Ent. 8: 175.—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 706, ♀.

belfragei Cresson. Tex. (***Cryptandrena***)
Andrena belfragei Cresson, 1872. Amer. Ent. Soc. Trans. 4: 256. ♀.
Andrena brunniventris Cresson, 1872. Amer. Ent. Soc. Trans. 4: 258. ♂.
Anthrena bruneiventris Dalla Torre, 1896. Cat. Hym., v. 10, p. 107.
Taxonomy: Lanham, 1949. Ent. News 60: 67.

bella Viereck. B. C. (***Andrena*** s. str.)
Andrena (Andrena) bella Viereck, 1924. Canad. Ent. 56: 22. ♀.

berberidis Cockerell. Colo. (***Dactylandrena***)
Andrena milwaukeensis var. ***berberidis*** Cockerell, 1905. Canad. Ent. 37: 371. ♀.
Taxonomy: Cockerell, 1914. Ann. Mag. Nat. Hist. (8) 13: 9, ♂.—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 705, 707, ♀ ♂ (key).

berkeleyi Viereck and Cockerell. Colo.
Andrena berkeleyi Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 19. ♂.
Taxonomy: Cockerell, 1933. Pan-Pacific Ent. 9: 153, ♂.

bernardina Linsley. Calif. (***Melandrena***)
Andrena bernardina Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 275. ♀ ♂.

beulahensis Viereck. N. Mex. (***Cnemidandrena***)
Andrena beulahensis Viereck, 1903. Amer. Ent. Soc. Trans. 29: 53. ♀.

beutenmuelleri Viereck. N. C.
Andrena beutenmuelleri Viereck, 1916. Amer. Mus. Nat. Hist. Bul. 35: 729. ♀.

bipunctata Cresson. East. Canada to Fla., west to Tex., Colo., Wyo., Calif. (***?Micrandrena***)
Andrena clypeata Smith, 1853. Cat. Hym. Ins. Coll. Brit. Mus., v. 1, p. 115. ♀. Preocc.
Andrena bipunctata Cresson, 1872. Amer. Ent. Soc. Trans. 4: 259. ♂.
Andrena miserabilis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 259. ♀ (♂ misdet.). N. syn. (Timberlake).
Andrena flavoclypeata Smith, 1879 Descr. New Species Hym. Brit. Mus., p. 54. ♂.
Andrena scutellaris Robertson, 1893. Amer. Ent. Soc. Trans. 10: 148. ♀. Preocc. N. syn. (Lanham).
Anthrena clypeolata Dalla Torre, 1896. Cat. Hym., v. 10, p. 133. N. name for *clypeata* Smith.
Anthrena scutellata Dalla Torre, 1896. Cat. Hym., v. 10, p. 151. N. name for *scutellaris* Robertson.
Andrena pennsylvanicola Viereck, 1907. Ent. News 18: 284. ♀. N. syn. (Lanham).
Andrena pronitens Cockerell, 1930. Ann. Mag. Nat. Hist. (10) 5: 114. ♀.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 124, 152 (types of *clypeata, flavoclypeata*).—Robertson, 1902. Amer. Ent. Soc. Trans. 28: 193, ♀ ♂ (key).—Cockerell, 1906. Psyche 13: 9, 36 (types of *clypeata, flavoclypeata*).—Atwood, 1934. Canad. Jour. Res. 10 (2): 208, 209, fig. ♀ ♂ (key).

birtwelli Cockerell. N. Mex., Colo. (***Andrena*** s. str.)
Andrena birtwelli Cockerell, 1901. Psyche 9: 283. ♀.
Andrena birtwelli subatrata Cockerell, 1931. Amer. Mus. Novitates 458: 8. ♀.
Taxonomy: Viereck, 1903. Amer. Ent. Soc. Trans. 29: 54, ♂.—Lanham, 1941, Ent. Soc. Amer. Ann. 34: 705, ♀ (key).

bisalicis Viereck. Atlantic Coast to N. Dak. On flowers of *Salix*. (***Thysandrena***)
Andrena salicis Robertson, 1891. Amer. Ent. Soc. Trans. 18: 53. ♀ ♂. Preocc.
Andrena bisalicis Viereck, 1908. Ent. News 19: 42. N. name.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 191, 192, ♀ ♂ (key).

biscutellata Viereck. Tex. (***Pterandrena***)
Andrena (Ptilandrena) biscutellata Viereck, 1917. Amer. Ent. Soc. Trans. 43: 393. ♀.

blaisdelli Cockerell. Calif. (***Melandrena***)
Andrena blaisdelli Cockerell, 1924. Pan-Pacific Ent. 1: 59. ♀.
Taxonomy: Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 266, 267, ♀ ♂ (key).

braccata Viereck. Atlantic Coast to Colo. (***Pterandrena***)
Andrena braccata Viereck, 1907. Ent. News 18: 284, 286. ♀ ♂.
Biology: Clements and Long, 1923. Carnegie Inst. Wash. Pub. 336: 249 (ecol.).

brachycarpae Viereck and Cockerell. Colo. (***Thysandrena***)
Andrena brachycarpae Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 55. ♀.
Taxonomy: Cockerell, 1932. Pan-Pacific Ent. 8: 176, ♀ (key).—Cockerell, 1933. Pan-Pacific Ent. 9: 154, ♀ (key).—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 706, ♀ (key).

bradleyi Viereck. N. S. to Md.; Colo. On flowers of *Ribes*. (***Conandrena***)
Andrena bradleyi Viereck, 1907. Ent. News 18: 285, 286. ♀ ♂.
Andrena saccharina Cockerell and Rohwer, 1907. Ann. Mag. Nat. Nist. (4) 20: 128. ♂. N. syn. (Timberlake).
Taxonomy: Atwood, 1934. Canad. Jour. Res. 10: 206, 208, figs., ♀ ♂ (key).
Biology: Salt, 1927. Jour. Expt. Zool. 48: 249 (stylopization).

brevibasis Cockerell. Wyo. (***Trachandrena***)
Andrena (Trachandrena) brevibasis Cockerell, 1931. Amer. Mus. Novitates 458: 8. ♀.

brevipalpis Cockerell. Colo. (***Thysandrena***)
Andrena brevipalpis Cockerell, 1930. Ann. Mag. Nat. Hist. (10) 5: 109. ♀.
Taxonomy: Cockerell, 1932. Pan-Pacific Ent. 8: 175, ♀.—Cockerell, 1937. Amer. Mus. Novitates 899: 4, ♀.

bruneri Viereck and Cockerell. Wyo., Colo., Nebr. (***Elandrena***)
Andrena bruneri Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 15. ♀.
Andrena viridibasis Cockerell, 1930. N. Y. Ent. Soc. Jour. 37: 444. ♀. N. syn. (Timberlake).
Taxonomy: Cockerell, 1931. Amer. Mus. Novitates 458: 9.

bryanti Cockerell. Alta. (***Cryptandrena***)
Andrena bryanti Cockerell, 1938. Canad. Ent. 70: 5. ♀.

buckelli Viereck. B. C. (***Andrena*** s. str.)
Andrena (Andrena) buckelli Viereck, 1924. Canad. Ent. 56: 22. ♀ ♂.

caeruleonitens Viereck. Calif.
Andrena caeruleonitens Viereck, 1926. Pomona Jour. Ent. Zool. 18: 1. ♂.

caliginosa Viereck. Calif. On flowers of *Ribes*. (***Dactylandrena***)
Andrena (Andrena) caliginosa Viereck, 1916. Acad. Sci. Phila. Proc. 68: 552. ♀.
Andrena (Dactylandrena) maura Viereck, 1924. Canad. Ent. 56: 31. ♂ (♀ misdet.).
Taxonomy: Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 267, ♀ ♂ (key).

campanulae Viereck and Cockerell. Colo., Nebr. (***Thysandrena***)
Andrena campanulae Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 43: 38, 43. ♂ ♀.
Taxonomy: Cockerell, 1932. Pan-Pacific Ent. 8: 177, ♀ ♂.

canadensis canadensis Dalla Torre. N. S. to N. Y., west to Minn. On flowers of *Solidago*. (***Cnemidandrena***)
Andrena simulata Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 313. ♀ ♂. Preocc.
Andrena canadensis Dalla Torre, 1896. Cat. Hym., v. 10, p. 107. N. name.
Andrena (Pterandrena) persimilis Graenicher, 1904. Ent. News 15: 66. ♀. N. syn. (Timberlake).
Taxonomy: Viereck, 1907. Ent. News 18: 282, 286, ♀ ♂ (key).—Atwood, 1934. Canad. Jour. Res. 10: 207, 209, fig. ♀ ♂ (key).
Biology: Salt, 1927. Jour. Expt. Zool. 48: 245 (stylopization).

canadensis oslarella Viereck and Cockerell. Colo., N. Mex. (***Cnemidandrena***)
Andrena canadensis oslarella Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 28. ♂.
Biology: Clements and Long, 1923. Carnegie Inst. Wash. Pub. 336: 249 (ecol.).

candida Smith. B. C. to south. Calif. and Colo. On flowers of *Salix*, etc. (***Thysandrena***)
Andrena candida Smith, 1879. Descr. New Species Hym. Brit. Mus., p. 56. ♀.
?*Andrena* (*Andrena*) *candida tramoserica* Viereck, 1917. Acad. Nat. Sci. Phila. Proc. 68: 533. ♀.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 155 (type).—Cockerell, 1906. Psyche 13: 10 (type).—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 706, 708, ♀ ♂ (key).

candidiformis candidiformis Viereck and Cockerell. Colo. to Calif. (***Micrandrena***)
Andrena candidiformis Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 33. ♂.
Andrena nigritarsis Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 53. ♀. N. syn. (Timberlake).
Taxonomy: Cockerell, 1936. Pan-Pacific Ent. 12: 150, ♂.—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 706, 708, ♀ ♂ (key).

candidiformis semotula Cockerell. Calif. (***Micrandrena***)
Andrena semotula Cockerell, 1936. Pan-Pacific Ent. 12: 149. ♂.

apricornis Casad and Cockerell. N. Mex.
Andrena capricornis Casad and Cockerell, 1896. Canad. Ent. 28: 182. ♂.
Taxonomy: Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 48, ♂ (key).—Cockerell, 1899. Ent. News 10: 255, ♂ (key).

carlini Cockerell. N. S. to N. J., west to Minn. and Colo., B. C. (?) to Oreg. (?). (***Cryptandrena***)
Andrena carlini Cockerell, 1901. Canad. Ent. 23: 150, 153. ♀.
Taxonomy: Atwood, 1934. Canad. Jour. Res. 10: 207, 209, ♀ ♂ (key).—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 705, 708, ♀ ♂ (key).
Biology: Atwood, 1933. Canad. Jour. Res. 9: 456.—Brittain, 1933. Canada Dept. Agr. Bul. 162: 94, figs.

carliniformis Viereck and Cockerell. Calif., Utah, Wyo. (***Gymnandrena***)
Andrena carliniformis Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 25. ♀.

carolina Viereck. N. S. to N. C. (***Conandrena***)
Andrena carolina Viereck, 1909. Ent. News 20: 126. ♀.
Taxonomy: Atwood, 1934. Canad. Jour. Res. 10: 208, 209, ♀ ♂.

carrikeri Viereck and Cockerell. Nebr. (***Andrena*** s. str.)
Andrena carrikeri Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 14. ♂.

casadae Cockerell. N. Mex., Colo.
Andrena casadae Cockerell, 1896. Ann. Mag. Nat. Hist. (6) 18: 83. ♂.
Taxonomy: Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 48, ♂ (key).

catalinica Cockerell. South. Calif. (Catalina Island). (***Micrandrena***)
Andrena catalinica Cockerell, 1939. Pomona Jour. Ent. Zool. 31: 25. ♀.

ceanothi Viereck. N. S. to Va., west to Wis. (***Trachandrena***)
Andrena (*Trachandrena*) *ceanothi* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 404. ♀. (♂misdet.).
Taxonomy: Cockerell, 1931. Amer. Mus. Novitates 458: 17, ♀ (key).—Atwood, 1934. Canad. Jour. Res. 10: 212, ♀ ♂.

ceanothifloris Linsley. South. Calif. On flowers of *Ceanothus*. (***Andrena*** s. str.)
Andrena ceanothifloris Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 270. ♀ ♂.

ceanothina Cockerell. Calif. (***Thysandrena***)
Andrena ceanothina Cockerell, 1936. Pan-Pacific Ent. 12: 138. ♀.

cerasifolii Cockerell. N. Mex., Utah, Calif. (?***Melandrena***)
Andrena cerasifolii Cockerell, 1896. Ent. Monthly Mag. (2) 7: 220. ♂.
Andrena mimetica Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 412. ♀ ♂. N. syn. (Timberlake).
Andrena mimetica var. *falli* Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 536.
Taxonomy: Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 48, ♂ (key.)—Cockerell, 1924. Pan-Pacific Ent. 1: 58, ♂.
Biology: Linsley, 1937. Brooklyn Ent. Soc. Bul. 32: 125.

cercocarpi Cockerell. Calif. (*?Micrandrena*)
Andrena (*Platandrena*) *cercocarpi* Cockerell, 1936. Pan-Pacific Ent. 12: 140. ♀.

chalybaea (Cresson). Calif. (*Diandrena*)
Panurgus chalybaeus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 61. ♀ ♂.

chalybioides (Viereck). Oreg., Calif. (*Diandrena*)
Parandrena chalybioides Viereck, 1904. Canad. Ent. 36: 229. ♀ ♂.

chapmanae Viereck. Calif. (*Elandrena*)
Andrena (*Andrena*) *chapmanae* Viereck, 1904. Canad. Ent. 36: 191. ♀.
Andrena yosemitensis Cockerell, 1924. Pan-Pacific Ent. 1: 61. ♀.

cheyennorum Viereck and Cockerell. Nebr., Wyo., Idaho. (*Conandrena*)
Andrena cheyennorum Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 20. ♂ ♀.
Andrena angustifrons Cockerell, 1934. Pan-Pacific Ent. 9: 155. ♀. N. syn. (Timberlake).

chlorinella Viereck. Oreg. (*?Micrandrena*)
Andrena chlorinella Viereck, 1904. Canad. Ent. 35: 189. ♀.
Andrena xanthostigma Viereck, 1904. Canad. Ent. 35: 193. ♀.

chlorogaster Viereck. Oreg., Calif. (*Micrandrena*)
Andrena chlorogaster Viereck, 1904. Canad. Ent. 35: 189. ♀.

chlorura Cockerell. Calif., B. C. (*Thysandrena*)
Andrena chlorura Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 48. ♀.
Andrena ablusula Cockerell, 1936. Pan-Pacific Ent. 12: 135. ♀. N. syn. (Timberlake).

chromotricha Cockerell. N. Mex., Wis. (*Cnemidandrena*)
Andrena chromotricha Cockerell, 1899. Entomologist 32: 128. ♀.
Andrena clypeonitens Cockerell, 1902. Canad. Ent. 34: 47. ♀.
Andrena truncata Viereck, 1903. Amer. Ent. Soc. Trans. 29: 53. ♀.
Taxonomy: Graenicher, 1910. Canad. Ent. 42: 160, ♂.

citrinihirta Viereck. Calif. (*Cnemidandrena*)
Andrena (*Andrena*) *citrinihirta* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 371. ♀.

claremonti Viereck. Calif. (*Thysandrena*)
Andrena claremonti Viereck, 1926. Pomona Jour. Ent. Zool. 18: 2. ♂.

clarkella (Kirby). Europe, Alaska to Ont., Que., Mass. (*Andrena* s. str.)
Melitta Clarkella Kirby, 1802. Monog. Apum Angliae, v. 2, p. 130. ♀.
Taxonomy: Sladen, 1919. Canad. Ent. 51: 124. ♀ ♂.

clementina Timberlake. South. Calif. (San Clemente Island). (*Thysandrena*)
Andrena clementina Timberlake, 1941. South. Calif. Acad. Sci. Bul. 39: 193. ♀.

cleodora (Viereck). B. C. to Calif. and Wyo. (*Trachandrena*)
Trachandrena cleodora Viereck, 1904. Canad. Ent. 35: 158. ♀.
Andrena (*Trachandrena*) *lutzi* Cockerell, 1931. Amer. Mus. Novitates 458: 12. ♀.
Taxonomy: Cockerell, 1932. Pan-Pacific Ent. 8: 173, ♂.

clypeoporaria Viereck. Wash., Oreg. (*Andrena* s. str.)
Andrena clypeoporaria Viereck, 1904. Canad. Ent. 36: 192. ♀.

coactifera Viereck. Calif. (*Trachandrena*)
Andrena (*Trachandrena*) *coactifera* Viereck, 1926. Calif. Acad. Sci. Proc. (4) 15: 399. ♀.

coactipostica Viereck. Calif. (*Aporandrena*)
Andrena (*Andrena*) *coactipostica* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 372. ♀.

cockerelli Graenicher. Maine to Va., west to Wis., Sask. On flowers of *Salix*. (*Andrena* s. str.)
Andrena cockerelli Graenicher, 1903. Canad. Ent. 35: 163. ♀ ♂.
Taxonomy: Viereck, 1907. Ent. News 18: 283, 285, ♀ ♂ (key).

coerulea Smith. B. C. (*Ptilandrena*)
Andrena coerulea Smith, 1879. Descr. New Species Hym. Brit. Mus., p. 55. ♀.

Andrena caerulea Dalla Torre, 1896. Cat. Hym., v. 10, p. 107.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 154 (type).—Cockerell, 1906. Psyche 13: 9 (type).

colletina Cockerell. Colo., B. C. (*Cnemidandrena*)
Andrena colletina Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 454. ♂.
Taxonomy: Cockerell, 1909. Ann. Mag. Nat. Hist. (8) 5: 260, ♀.—Cockerell, 1931. Amer. Mus. Novitates 458: 14, 15, ♀ ♂ (key).

colletoides Viereck and Cockerell. Colo.
Andrena colletoides Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 27. ♂.
Taxonomy: Lanham, 1941. Ent. Soc. Amer. Ann. 34: 707, ♂ (key).

coloradina Viereck and Cockerell. Colo. (*Thysandrena*)
Andrena coloradina Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 53, 56. ♀.
Taxonomy: Cockerell, 1933. Pan-Pacific Ent. 9: 154, ♀ (key).

columbiana Viereck. B. C. (*Cnemidandrena*)
Andrena (*Andrena*) *columbiana* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 374. ♀.

commoda Smith. Southeast Canada to Conn., west to Minn., Colo. (*Gymnandrena*)
Andrena commoda Smith, 1879. Descr. New Species Hym. Brit. Mus., p. 53. ♀.
Andrena corni Robertson, 1900. Acad. Sci. St. Louis, Trans. 10: 50. ♀.
Andrena Wilmattae Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 224. ♀.
Andrena pyrura Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 309. ♀.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 152 (type).—Cockerell, 1906. Psyche 13: 6, ♀ (type).—Viereck, 1907. Ent. News 18: 283, 286, ♀ ♂ (key).—Cockerell, 1931. Amer. Mus. Novitates 458: 18, 19.

compactiscopa Viereck. Wash.
Andrena compactiscopa Viereck, 1904. Canad. Ent. 36: 191. ♀.

complexa (Viereck). Oreg., Calif. On flowers of *Ranunculus*. (*Ptilandrena*)
Pterandrena complexa Viereck, 1904. Canad. Ent. 36: 227. ♀.
Andrena supervirens Cockerell, 1924. Pan-Pacific Ent. 1: 64. ♀.
Andrena supervirens var. *tristis* Cockerell, 1924. Pan-Pacific Ent. 1: 64. ♀.
Taxonomy: Cockerell, 1932. Canad. Ent. 64: 287, ♀.

complicata Viereck. Calif. (?*Leucandrena*)
Andrena (*Andrena*) *complicata* Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 554. ♀.

concinnula (Cockerell). Calif. (*Parandrena*)
Parandrena concinnula Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 189. ♂.

confederata Viereck. Ohio to Md., Va., Ga. (*Gymnandrena*)
Andrena (*Andrena*) *confederata* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 375. ♀ ♂.

cornelli Viereck. N. Y.
Andrena cornelli Viereck, 1907. Ent. News 18: 282. ♀.

corrugata Cockerell. Wyo. (*Trachandrena*)
Andrena (*Trachandrena*) *corrugata* Cockerell, 1931. Amer. Mus. Novitates 458: 9. ♀.

costillensis Viereck and Cockerell. Colo., N. Mex. (*Cnemidandrena*)
Andrena costillensis Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 50. ♀.
Taxonomy: Cockerell, 1931. Amer. Mus. Novitates 458: 14, ♀ ♂.

cragini Cockerell. Kans.
Andrena cragini Cockerell, 1899. Ent. News 10: 254. ♂.

crassihirta (Viereck). Wash. ? to Utah. (*Trachandrena*)
Trachandrena crassihirta Viereck, 1904. Canad. Ent. 35: 158. ♀.

crataegi Robertson. South. Canada and north. U. S., south to Va., Colo., Oreg. (*Schizandrena*)

Andrena crataegi Robertson, 1893. Amer. Ent. Soc. Trans. 20: 273. ♀ ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 190, ♀ ♂ (key).—Atwood, 1934. Canad. Jour. Res. 10: 208, 210, ♀ ♂ (key).
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 33–34.—Clements and Long, 1923. Carnegie Inst. Wash. Pub. 326: 249 (ecol.).—Brittain, 1933. Canada Dept. Agr. Bul. 162: 94, figs.

crawfordi Viereck. Tex. On flowers of *Sitilias*. (***Pterandrena***)
Andrena crawfordi Viereck, 1909. Ent. Soc. Wash. Proc. 11: 143. ♀ ♂.

cressonii Robertson. Atlantic to Pacific in south. Canada and U. S. (***Opandrena***)
Andrena Cressonii Robertson, 1891. Amer. Ent. Soc. Trans. 18: 56. ♀ ♂.
Andrena kansensis Cockerell, 1899. Ent. News 10: 255.
Andrena bridwelli Cockerell, 1899. Ent. News 10: 255. ♂.
Andrena dubia Robertson, 1902. Canad. Ent. 34: 48. ♂. N. syn. (Timberlake).
Andrena (*Trachandrena*) *trumani* Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 12. ♀. N. syn. (Lanham).
Andrena latisigna Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 22. ♂.
Andrena cressoni transformans Cockerell, 1934. Pan-Pacific Ent. 9: 157. ♀. N. syn. (Timberlake).
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 193, ♀ ♂ (key).

cristata Viereck. Nev. (***Andrena*** s. str.)
Andrena (*Andrena*) *cristata* Viereck, 1917. Acad. Nat. Sci. Phila. Proc. 68: 556. ♀.

crypta (Viereck). B. C. to Oreg. (***Ptilandrena***)
Pterandrena crypta Viereck, 1904. Canad. Ent. 36: 227. ♀.

cuneilabris Viereck. Calif. (***Diandrena***)
Andrena (*Parandrena*) *cuneilabris* Viereck, 1926. Calif. Acad. Sci. Proc. (4) 15: 400. ♀.

cupreotincta Cockerell. Wash. (***Trachandrena***)
Andrena cupreotincta Cockerell, 1901. Canad. Ent. 33: 153. ♀.
Taxonomy: Viereck, 1904. Canad. Ent. 36: 158, ♀ (key).

cyanophila Cockerell. Alta., Wyo., Colo., Ariz. (***Trachandrena***)
Andrena cyanophila Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 431. ♀.
Taxonomy: Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 11, ♀.

cyanosoma (Cockerell). Calif. (***Diandrena***)
Diandrena cyanosoma Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 49. ♀ ♂.

cyanura Cockerell. Colo. (***Cryptandrena***)
Andrena cyanura Cockerell, 1916. Canad. Ent. 48: 252. ♀.

daeckei Viereck. Maine to N. J. (***Trachandrena***)
Andrena (*Trachandrena*) *daeckei* Viereck, 1907. Ent. News 18: 280, 285, 286. ♀ ♂.

dallasiana Cockerell. Tex.
Andrena dallasiana Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 262.

davidsoni Viereck and Cockerell. Calif.
Andrena davidsoni Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 52. ♀.
Taxonomy: Cockerell, 1930. Pan-Pacific Ent. 7: 8, ♀ (key).

davisi Viereck. Conn.?
Andrena davisi Viereck, 1907. Ent. News 18: 283. ♀.

davisiana Viereck and Cockerell. Colo. (***Trachandrena***)
Andrena (*Trachandrena*) *davisiana* Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 6. ♂.
Taxonomy: Lanham, 1941. Ent. Soc. Amer. Ann. 34: 707, ♂ (key).

decussata Viereck. Wash. (***Thysandrena***)
Andrena decussata Viereck, 1904. Canad. Ent. 36: 193, 194. ♀ ♂.

decussatula Viereck. B. C.
Andrena decussatula Viereck, 1904. Canad. Ent. 36: 193. ♀.

deserticola Timberlake. Calif. (*Melandrena*)
Andrena deserticola Timberlake, 1937. Pan-Pacific Ent. 12: 173. ♀.

determinata Viereck. Mass. (*Pterandrena*)
Andrena (*Ptilandrena*) *determinata* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 394. ♀.

didelta Viereck. N. Mex.
Andrena delta Viereck, 1903. Amer. Ent. Soc. Trans. 29: 55. ♀. Preocc.
Andrena didelta Viereck, 1908. Ent. News 19: 42. N. name.

discolor Viereck. Calif. (*Thysandrena*)
Andrena discolor Viereck, 1916. Amer. Mus. Nat. Hist. Bul. 35: 370. ♀.

distans Provancher. Canada.
Andrena distans Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 307. ♀ ♂.
Taxonomy: Viereck, 1907. Ent. News 18: 282, 286, ♀ ♂ (key).

diversicolor Viereck. Alta. (*Andrena* s. str.)
Andrena (*Andrena*) *diversicolor* Viereck, 1924. Canad. Ent. 56: 76. ♀.

dolichotricha Cockerell. Wyo.
Andrena dolichotricha Cockerell, 1924. Ent. News 35: 348. ♂.

dolomellea Lanham. Tex.
Andrena dolomellea Lanham, 1949. Ent. News 60: 65. ♀ ♂.

dunningi Cockerell. Que. to Conn., Minn. (*Cryptandrena*)
Andrena dunningi Cockerell, 1898. Canad. Ent. 30: 103. ♀.
Andrena viciniformis Robertson, 1900. Acad. Sci. St. Louis., Trans. 10: 47. ♀ ♂.
Andrena annae Cockerell, 1931. Canad. Ent. 63: 200. ♀. N. syn. (Timberlake).
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 190, 192, ♀ ♂ (key).

durangoensis Viereck and Cockerell. Colo.
Andrena durangoensis Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 36. ♂.

edwardsi Viereck. Idaho. (*Andrena* s. str.)
Andrena edwardsi Viereck, 1916. Amer. Mus. Nat. Hist. Bul. 35: 731 ♀.

edwiniae Cockerell. Colo. (*Andrena* s. str.)
Andrena edwiniae Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 310. ♀.
Biology: Clements and Long, 1923. Carnegie Inst. Wash. Pub. 326: 249 (ecol.).

electrica Casad and Cockerell. N. Mex. (*Leucandrena*)
Andrena electrica Casad and Cockerell, 1896. Ann. Mag. Nat. Hist. (6) 18: 89. ♂ ♀.
Taxonomy: Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 49, ♀ ♂ (key).

ellisiae Cockerell. Colo. (*Scaphandrena*)
Andrena ellisiae Cockerell, 1914. Ann. Mag. Nat. Hist. (8) 14: 9. ♀.
Taxonomy: Lanham, 1941. Ent. Soc. Amer. Ann. 34: 706, ♀ (key).

elongatula Viereck. Calif.
Andrena (*Andrena*) *elongatula* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 378. ♂.

enceliarum Cockerell. Ariz.
Andrena enceliarum Cockerell, 1937. Amer. Mus. Novitates 948: 13. ♂.

enigmatica Viereck and Cockerell. Nebr. (*Andrena* s. str.)
Andrena enigmatica Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 33. ♂.

enocki (Cockerell). Calif. (*Parandrena*)
Parandrena enocki Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 189. ♂.

epileuca Cockerell. B. C. to Calif. (?*Gymnandrena*)
Andrena epileuca Cockerell, 1924. Pan-Pacific Ent. 1: 62. ♀ ♂.
Taxonomy: Cockerell, 1932. Canad. Ent. 64: 286, ♀ (key).

erecta Viereck. B. C. to Calif. (*Andrena* s. str.)
Andrena (*Andrena*) *erecta* Viereck, 1924. Canad. Ent. 56: 28. ♀ ♂.

erigeniae Robertson. N. Y. to Va., to Ill. On flowers of *Claytonia*. (***Ptilandrena***)
Andrena erigeniae Robertson, 1891. Amer. Ent. Soc. Trans. 18: 52. ♀ ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 192, ♀ ♂ (key).

erigenioides (Viereck). Oreg., Wash. (***Ptilandrena***)
Pterandrena erigenioides Viereck, 1904. Canad. Ent. 36: 227. ♀.

eriogoni Cockerell. Idaho, Colo. (***Trachandrena***)
Andrena (Trachandrena) eriogoni Cockerell, 1927. Ent. Soc. Amer. Ann. 20: 397. ♀.

errans Smith. B. C., Wash., Calif., N. Mex. (***Gymnandrena***)
Andrena errans Smith, 1879. Descr. New Species Hym. Brit. Mus., p. 55. ♀ ♂.
Andrena argentiniae var. ***trichomelaena*** Cockerell, 1913. Ann. Mag. Nat. Hist. (8) 12: 376. ♂ ♀. N. syn. (Timberlake).
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 153 (type).—Cockerell, 1906. Psyche 13: 34 (type).

erythrogaster erythrogaster (Ashmead). Que. to Minn. and Mo., west to B. C., Colo. and N. Mex. On flowers of *Salix*. (***Cryptandrena***)
Cilissa erythrogaster Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 6.
Andrena perezi Robertson, 1891. Amer. Ent. Soc. Trans. 18: 51. ♀ ♂.
Andrena rhodura Cockerell, 1898. Ent. News 9: 171. ♀.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 190, 192, ♀ ♂ (key).—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 704, 707, ♀ ♂ (key).
Biology: Rau, 1935. Ent. News 45: 35.

erythrogaster subaustralis Cockerell. B. C. to N. Mex., and south. Calif. On flowers of *Salix*. (***Cryptandrena***)
Andrena subaustralis Cockerell, 1898. Canad. Ent. 30: 146. ♀ ♂. N. syn.
Andrena subaustraliformis Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 28. ♂. N. syn.
Andrena viridinitens Cockerell, 1936. Pan-Pacific Ent. 12: 152. ♀. N. syn.

erythronii Robertson. Ill. (***Leucandrena***)
Andrena erythronii Robertson, 1891. Amer. Ent. Soc. Trans. 18: 53. ♀ ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 190, 193, ♀ ♂ (key).

escondida Cockerell. South. Calif. and north. Baja Calif. On flowers of *Encelia; Layia*. (***Hesperandrena***)
Andrena escondida Cockerell, 1938. Ann. Mag. Nat. Hist. (11) 2: 146. ♂.

excellens Viereck. B. C. (***Andrena*** s. str.)
Andrena (Andrena) excellens Viereck. 1924. Canad. Ent. 56: 76. ♀.

extensa Viereck. B. C. to Wash., Nev., Utah. (?***Dactylandrena***)
Andrena (Iomelissa) extensa Viereck, 1924. Canad. Ent. 56: 240. ♀ ♂.
Taxonomy: Cockerell, 1932. Canad. Ent. 64: 286, ♀ (key).

fenningeri Viereck. Conn. to Pa. and Va. (***Trachandrena***)
Andrena (Scrapteropsis) fenningeri Viereck, 1922. Boston Soc. Nat. Hist. Occas. Papers 5: 42, figs. ♀ ♂.

fernaldiella Viereck and Cockerell. Colo.
Andrena fernaldiella Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 34. ♂.

flandersi Timberlake. South. Calif. (***Melandrena***)
Andrena flandersi Timberlake, 1937. Pan-Pacific Ent. 12: 72. ♀.
Taxonomy: Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 266, 278, ♀ (key).

flexa Malloch. Ill. to Tex. (?***Thysandrena***)
Andrena flexa Malloch, 1917. Brooklyn Ent. Soc. Bul. 12: 92. ♀.

forbesii Robertson. N. S. to Va., west to Nebr. and Colo. (***Trachandrena***)
Andrena forbesii Robertson, 1891. Amer. Ent. Soc. Trans. 18: 59. ♀.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 189, 190, ♀ ♂.—Atwood, 1934. Canad. Jour. Res. 10: 208, 209, figs., ♀ ♂ (key).—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 704, 707, ♀ ♂ (key).

foxii Cockerell. Calif. (***Diandrena***)
Andrena foxii Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 188. ♀ ♂.

fragiliformis Cockerell. Colo.
Andrena fragiliformis Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 435. ♀.

fragilis Smith. Atlantic Coast to Colo. and N. Mex. (*Gonandrena*)
Andrena fragilis Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 115. ♂.
Andrena laticeps Provancher, 1888. Addit. Corr. Fauna Ent. Canada Hym., p. 307. ♂. Preocc.
Andrena lineata Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 309. ♀.
Andrena platyparia Robertson, 1895. Amer. Ent. Soc. Trans. 22: 119. ♀ ♂.
Andrena provancheri Dalla Torre, 1896. Cat. Hym. v. 10, p. 147. N. name.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 149 (type of *fragilis*).—Cockerell, 1906. Psyche 13: 7 (type of *fragilis*).

francisca Viereck. Calif. (*Ptilandrena*)
Andrena (*Ptilandrena*) *francisca* Viereck, 1917. Acad. Nat. Sci. Phila. Proc. 68: 595. ♀.

friesei Viereck. Calif. (*Simandrena*)
Andrena (*Andrena*) *friesei* Viereck, 1917. Acad. Nat. Sci. Phila. Proc. 68: 558. ♀.

frigida Smith. N. S., Ont., Alaska. (*Andrena* s. str.)
Andrena frigida Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 115. ♀.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 149, ♀ (type).—Cockerell, 1906. Psyche 13: 33 (type).—Atwood, 1934. Canad. Jour. Res. 10: 207, 209, ♀ ♂ (key).

fulvicrista Viereck. B. C. (*Andrena* s. str.)
Andrena (*Andrena*) *fulvicrista* Viereck, 1924. Canad. Ent. 56: 30. ♀ ♂.

fulvihirta Viereck and Cockerell. B. C. to Colo. and Calif. (*Thysandrena*)
Andrena fulvihirta Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 54. ♀.
Andrena washingtoni manitouensis Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 31. ♂. N. syn. (Timberlake).

fulvinigra Viereck and Cockerell. Colo. (?*Gymnandrena*)
Andrena fulvinigra Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 42. ♀. [*A. merriami* var.?]

fulvipennis Smith. Fla., N. J. (*Pterandrena*)
Andrena fulvipennis Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 117. ♀.
Taxonomy: Viereck, 1902. Ent. News 13: 237, ♀.

fuscicauda (Viereck). Wash. (*Trachandrena*)
Trachandrena fuscicauda Viereck, 1904. Canad. Ent. 35: 159. ♀.

fuscisignata Viereck. Maine, N. H. (*Thysandrena*)
Andrena (*Andrena*) *fuscisignata* Viereck, 1917. Amer. Ent. Soc. Trans. 45: 379. ♀ ♂.

gardineri Cockerell. Colo. (*Pterandrena*)
Andrena (*Pterandrena*) *gardineri* Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 307. ♀.
Andrena ashmeadi Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 45. ♀. N. syn. (Lanham).
Andrena (*Opandrena*) *lamellicauda* Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 629. ♂.
Andrena campbelli Cockerell, 1933. Pan-Pacific Ent. 9: 153. ♂.
Taxonomy: Lanham, 1941. Ent. Soc. Amer. Ann. 34: 711.
Biology: Clements and Long, 1923. Carnegie Inst. Wash. Pub. 366: 249. (ecol.).

garretti Viereck. B. C. (*Parandrena*)
Andrena (*Parandrena*) *garretti* Viereck, 1924. Canad. Ent. 53: 243. ♂.

geranii Robertson. Va. to Wis., Kans., Colo. On flowers of *Hydrophyllum*. (*Thysandrena*)
Andrena geranii Robertson, 1891. Amer. Ent. Soc. Trans. 18: 54. ♀ ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 190, 192, ♀ ♂ (key).

geranii-maculati Viereck. Atlantic Coast from Conn. to Va., west to Ill. On flowers of *Geranium maculatum*. (*Ptilandrena*)
Andrena g. maculati Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 333. ♀ ♂. Trinomial.

Andrena gerani-maculati Viereck, 1907. Ent. News 18: 282. ♀.

gibberis Viereck, B. C. to Oreg. (*Parandrena*)
Andrena (*Parandrena*) *gibberis* Viereck, 1924. Canad. Ent. 56: 241. ♀ ♂.

gnaphalii (Cockerell). South. Calif. (Catalina Island). (*Diandrena*)
Diandrena gnaphalii Cockerell, 1938. Ann. Mag. Nat. Hist. (11) 2: 148. ♂.

graenicheri Cockerell. Wis. On flowers of Compositae. (*Pterandrena*)
Andrena graenicheri Cockerell, 1902. Ann. Mag. Nat. Hist. (7) 9: 104. ♀.

grandior Cockerell. B. C. to N. S., south to Wash., N. Mex., N. J. (*Trachandrena*)
Andrena grandior Cockerell, 1897. Entomologist 30: 307. ♀.
Andrena multiplicata Cockerell, 1902. Canad. Ent. 34: 46. ♀. N. syn. (Timberlake).
Andrena multiplicatiformis Viereck, 1907. Ent. News 18: 284. ♀. N. syn. (Timberlake).
Taxonomy: Atwood, 1934. Canad. Jour. Res. 10 (2): 208, 210, ♀ ♂.

grundeli Linsley. Calif. (*?Melandrena*)
Andrena grundeli Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 274. ♀ ♂.

hadra (Viereck). Wash. (*Trachandrena*)
Trachandrena hadra Viereck, 1904. Canad. Ent. 35: 158. ♀.

hallii Dunning. Wash., Idaho, Wyo., Utah.
Andrena Hallii Dunning, 1898. Canad. Ent. 30: 268. ♀.
Taxonomy: Viereck, 1904. Canad. Ent. 36: 191, ♀ (key).—Cockerell, 1931. Amer. Mus. Novitates 458: 10, ♀.

harveyi Viereck. B. C., Oreg. (*Andrena* s. str.)
Andrena harveyi Viereck, 1904. Canad. Ent. 36: 192, 194. ♀ ♂.

haynesi Viereck and Cockerell. Nebr., Colo. (*Pterandrena*)
Andrena haynesi Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 26. ♀.
Taxonomy: Cockerell, 1931. Amer. Mus. Novitates 458: 14, ♀ (key).

helianthi Robertson. Conn. to Minn., south to N. Mex., Utah. On flowers of Astereae; Heliantheae. (*Pterandrena*)
Andrena helianthi Robertson, 1891. Amer. Ent. Soc. Trans. 18: 55. ♀ ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 194, ♀ ♂.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 222.

helianthiformis Viereck and Cockerell. Mont., Kans. (*Pterandrena*)
Andrena helianthiformis Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 26. ♀.

hemileuca Viereck. Wash. (*Andrena* s. str.)
Andrena hemileuca Viereck, 1904. Canad. Ent. 36: 192, 193. ♀ ♂.

heraclei Robertson. Kans. to Ill., east to Va. (*Trachandrena*)
Andrena heraclei Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 336. ♀.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 189, ♀.

heterura Cockerell. Colo. (*Cryptandrena*)
Andrena heterura Cockerell, 1930. N. Y. Ent. Soc. Jour. 37: 445. ♀.

hicksi Cockerell. Colo. (*Elandrena*)
Andrena hicksi Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 628. ♀.
Taxonomy: Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 265, ♀ (key).—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 705, 707, ♀ ♂ (key).

hilaris Smith. East. Canada to Ga., Ala. (*Gymnandrena*)
Andrena hilaris Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 112. ♀.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 151 (type).

hirsutula Cockerell. N. W. T. (Hay River). (*?Ptilandrena*)
Andrena hirsutula Cockerell, 1936. Canad. Ent. 68: 282. ♀.

hirticincta Provancher. East. Canada to Alta., south to Md.
Andrena fimbriata Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 116. ♀ ♂. Preocc.
Andrena hirticincta Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 308. ♀ ♂.

Anthrena americana Dalla Torre, 1896. Cat. Hym., v. 10, p. 102. N. name.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 149 (type of *fimbriata*).—Cockerell, 1906. Psyche 13: 9 (types of *fimbriata*).—Atwood, 1934. Canad. Jour. Res. 10 (2): 207, 209, fig., ♀ ♂ (key).
Biology: Salt, 1927. Jour. Expt. Zool. 48: 233, figs. (stylopization).

hirtignatha Linsley, n. name. Hudson's Bay, Ont., Ill.
Andrena hirticeps Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 116. ♂. Preocc. by Eversman, 1852.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 149 (type).—Cockerell, 1906. Psyche 13: 26. (type).

hitei Cockerell. Colo. (*Andrena* s. str.)
Andrena hitei Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 369. ♀.
Taxonomy: Nelson, 1930. Ent. News 41: 322, fig., ♀ ♂.—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 705, ♀ (key).

huardi Viereck. Calif. On flowers of *Salix*. (*Simandrena*)
Andrena (*Andrena*) *angustitarsata huardi* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 368. ♀.

hurdi Lanham. Calif.
Andrena hurdi Lanham, 1949. Pan-Pacific Ent. 25: 33. ♀ ♂.

hypoleuca Cockerell. South. Calif. (Catalina Island). (*Simandrena*)
Andrena hypoleuca Cockerell, 1939. Pomona Jour. Ent. Zool. 31: 25. ♀.

idahorum Viereck. Idaho. (*Andrena* s. str.)
Andrena idahorum Viereck, 1916. Amer. Mus. Nat. Hist. Bul. 35: 732. ♀.

illinoiensis Robertson. South. Canada, northeast. U. S. to Rocky Mts. and Pacific Coast. On flowers of *Salix*. (*Micrandrena*)
Andrena illinoiensis Robertson, 1891. Amer. Ent. Soc. Trans. 18: 54. ♀ ♂.
Andrena salicinella Cockerell, 1895. Psyche 7 (sup.): 4. ♀.
Andrena placitae Cockerell, 1903. Ent. News 14: 215. ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 190, 192, ♀ ♂ (key).—Cockerell, 1914. Ann. Mag. Nat. Hist. (8) 14: 10, ♀ (key).—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 706, 708, ♀ ♂ (key).

imitatrix Cresson. Northeast. U. S. to Ga., Tex., Colo. (*Mimandrena*)
Andrena imitatrix Cresson, 1872. Amer. Ent. Soc. Trans. 4: 258. ♀.
Andrena claytoniae Robertson, 1891. Amer. Ent. Soc. Trans. 18: 59. ♀ ♂.
Andrena (*Trachandrena*) *crataegiphila* Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 7. ♂. N. syn. (Timberlake).
Andrena (*Scrapter*) *imitatrix* var. *profunda* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 398. ♀.
Andrena (*Trachandrena*) *tardula* Cockerell, 1930. N. Y. Ent. Soc. Jour. 37: 447. ♀. N. syn. (Lanham).
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 190, ♀ ♂ (key).—Cockerell, 1929. Ent. Soc. Amer. Ann. 22: 755.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 34.—Clements and Long, 1923. Carnegie Inst. Wash. Pub. 336: 249 (ecol.).

impuncta Kirby. Maine, N. Y. (*Andrena* s. str.)
Andrena impuncta Kirby, 1837. Faun. Bor.-Amer., v. 4, p. 268. ♀.

inclinata Viereck. Calif.
Andrena (*Andrena*) *inclinata* Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 559. ♀.

indecisa Cockerell. B. C., Alta., Mont. (*Cnemidandrena*)
Andrena costillensis indecisa Cockerell, 1937. Canad. Ent. 69: 34. ♀.

indianensis Cockerell. Ind. (*Trachandrena*)
Andrena (*Trachandrena*) *indianensis* Cockerell, 1929. Ent. Soc. Amer. Ann. 22: 757. ♀.

indotata (Viereck). B. C. south to north. Calif. and Nev., Alta. to Colo. (*Trachandrena*)
Trachandrena indotata Viereck, 1904. Canad. Ent. 36: 158, 159. ♀ ♂.

innominata Viereck. Calif.
Andrena (*Andrena*) *innominata* Viereck, 1926. Calif. Acad. Sci. Proc. (4) 15: 404. ♂.

integra Smith. East. Canada to Va. (***Gonandrena***)
Andrena integra Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 114. ♀.
Andrena* (*Gonandrena*) *lucifera Cockerell, 1932. Canad. Ent. 64: 155. ♀.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 124 (type of *integra*).—Cockerell, 1906. Psyche 13: 6 (type of *integra*).

interrogationis Viereck and Cockerell. Colo.
Andrena interrogationis Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 35. ♂.

irana Cockerell. Colo. (***Andrena*** s. str.)
Andrena irana Cockerell, 1931. Ann. Mag. Nat. Hist. (10) 3: 392. ♀.
Taxonomy: Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 265, ♀ (key).—Lanham 1941. Ent. Soc. Amer. Ann. 34: 705, ♀ (key).
Biology: Hicks, 1934. Colo. Univ., Studies 21: 267.

jennei Viereck. Wash.
Andrena* (*Andrena*) *jennei Viereck, 1917. Acad. Nat. Sci. Phila. Proc. 68: 561. ♂.

jessicae Cockerell. N. Mex.
Andrena jessicae Cockerell, 1896. Ann. Mag. Nat. Hist. (6) 18: 79. ♂.
Taxonomy: Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 48 (key).

jockorum Viereck and Cockerell. Idaho. (***Trachandrena***)
Andrena* (*Trachandrena*) *jockorum Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 3. ♂.

johnsoniana Cockerell. N. Mex. (***Mimandrena***)
Andrena johnsoniana Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 224. ♀.
Taxonomy: Cockerell, 1931. Canad. Ent. 63: 22, ♀.—Cockerell, 1931. Amer. Mus. Novitates 458: 11, ♀.

junonia Viereck. Wash.
Andrena junonia Viereck, 1904. Canad. Ent. 36: 191. ♀.

kalmiae Atwood. N. S. (***Trachandrena***)
Andrena kalmiae Atwood, 1934. Canad. Jour. Res. 10: 210, fig., ♀ ♂.

knuthiana Cockerell. Oreg., Calif. (***Thysandrena***)
Andrena knuthiana Cockerell, 1906. Ztschr. System. Hym. Dipt. 1: 80. ♀ ♂.
Taxonomy: Cockerell, 1901. Ent. News 12: 74. ♀.

krigiana Robertson. Conn. to Ill., Tex.? On flowers of *Krigia*.
Andrena krigiana Robertson, 1901. Canad. Ent. 33: 229. ♀ ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 194, ♀ ♂.—Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 777, ♀ ♂.

laminibucca Viereck and Cockerell. Colo. (***Andrena*** s. str.)
Andrena laminibucca Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 37. ♂.

lappulae Cockerell. Colo.
Andrena lappulae Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 437. ♂.

laramiensis Viereck and Cockerell. Wyo., Nebr.
Andrena laramiensis Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 22, 23. ♂.

lata Viereck. N. S., Maine. (***Thysandrena***)
Andrena* (*Andrena*) *lata Viereck, 1922. Boston Soc. Nat. Hist. Occas. Papers 5: 39. ♀.
Taxonomy: Atwood, 1934. Canad. Jour. Res. 10 (2): 208, 210, ♀ ♂ (key).

lauracea Robertson. Ill. (***Pterandrena***)
Andrena lauracea Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 331. ♀.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 194, ♀.

lawrencei Viereck and Cockerell. Nebr.
Andrena lawrencei Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 15. ♀.

lewisii Cockerell. Colo. On flowers of *Rubus*. (?***Andrena*** s. str.)

Andrena lewisii Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 435. ♀.
Taxonomy: Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 57, ♀ (var.).—Cockerell, 1927. Ent. Soc. Amer. Ann. 20: 397, ♀.
Biology: Clements and Long, 1923. Carnegie Inst. Wash. Pub. 336: 249 (ecol.).

lillooetensis Viereck. B. C. (*Andrena* s. str.)
Andrena (*Andrena*) *lillooetensis* Viereck, 1924. Canad. Ent. 56: 237. ♂.

limarea (Viereck). B. C. to Oreg. (*Trachandrena*)
Trachandrena limarea Viereck, 1904. Canad. Ent. 36: 158, 159. ♀ ♂.

lincolnella Viereck and Cockerell. Nebr. (*Pterandrena*)
Andrena lincolnella Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 46. ♀.

lincolni Viereck and Cockerell. Sask. to Nebr., N. Mex. (*Trachandrena*)
Andrena (*Trachandrena*) *lincolni* Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 13. ♀.
Taxonomy: Cockerell, 1931. Amer. Mus. Novitates 458: 17 (key).

linsleyi Timberlake. Calif. (*Melandrena*)
Andrena linsleyi Timberlake, 1937. Pan-Pacific Ent. 12: 71. ♀.
Taxonomy: Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 266, ♀ (key).

littlefieldi Viereck. Colo.
Andrena (*Andrena*) *littlefieldi* Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 563. ♂.

longihirtiscopa Viereck. B. C.
Andrena longihirtiscopa Viereck, 1904. Canad. Ent. 36: 191. ♀.

lummiorum Viereck. B. C. (*Andrena* s. str.)
Andrena (*Andrena*) *lummiorum* Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 564. ♀.

lupini Cockerell. Calif. (*Leucandrena*)
Andrena lupini Cockerell, 1936. Pan-Pacific Ent. 12: 142. ♀.

lupinorum helenae Cockerell. Colo. (*Gymnandrena*)
Andrena lupinorum helenae Cockerell, 1934. Amer. Mus. Novitates 697: 2. ♀.

lupinorum lupinorum Cockerell. Wyo., Colo., Nebr. (*Gymnandrena*)
Andrena lupinorum Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 308. ♀.
Andrena vicina argentiniae Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 432. ♀. N. syn. (Timberlake).
Taxonomy: Lanham, 1941. Ent. Soc. Amer. Ann. 34: 705, ♀ (key).

lustrans Cockerell. Calif., Oreg., Idaho. (*?Gymnandrena*)
Andrena lustrans Cockerell, 1924. Pan-Pacific Ent. 1: 63. ♀.
Taxonomy: Cockerell, 1932. Canad. Ent. 64: 286, ♀ (var.).

mackiae Cockerell. Calif. (*?Scaphandrena*)
Andrena mackiae Cockerell, 1937. Amer. Mus. Novitates 899: 3. ♀.

macoupinensis Robertson. Ill. On flowers of *Salix*. (*Andrena* s. str.)
Andrena macoupinensis Robertson, 1900. Acad. Sci. St. Louis, Trans. 10: 48. ♀.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 191, ♀ (key).

macrocephala macrocephala Cockerell. South. Calif. (lowlands). On flowers of *Nemophila*. (*Oligandrena*)
Andrena macrocephala Cockerell, 1916. Ann. Mag. Nat. Hist. (8) 17: 278. ♂.
Andrena peratra Cockerell, 1916. Pomona Jour. Ent. Zool. 7: 46. ♀.
Taxonomy: Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 281, ♀ ♂.

macrocephala tetleyi Linsley. South. Calif. (montane). On flowers of *Nemophila*. (*Oligandrena*)
Andrena macrocephala tetleyi Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 282. ♀.

magnifica Viereck. B. C. (*Andrena* s. str.)
Andrena (*Andrena*) *magnifica* Viereck, 1924. Canad. Ent. 56: 77. ♀.

mandibularis Robertson. N. S., N. H., Conn., Pa., Ill. (***Andrena*** s. str.)
Andrena mandibularis Robertson, 1892. Amer. Nat. 26: 272. ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 191, 192, ♀ ♂ (key).—Atwood, 1934. Canad. Jour. Res. 10: 209, ♂ (key).
Biology: Salt, 1927. Jour. Expt. Zool. 48: 252 (stylopization).

mariae Robertson. N. S. to Minn. south to N. J., Kans., Colo. On flowers of *Salix*. (***Trachandrena***)
Andrena mariae Robertson, 1891. Amer. Ent. Soc. Trans. 18: 58. ♀ ♂.
Andrena mariae var. ***concolor*** Robertson, 1898. Acad. Sci. St. Louis, Trans. 8: 46. ♀ ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 189, 190, ♀ ♂.—Viereck, 1907. Ent. News 18: 284, 286, ♀ ♂ (key).—Atwood, 1934. Canad. Jour. Res. 10: 208, 210, ♀ ♂ (key).

marina Viereck. Calif.
Andrena (***Andrena***) ***marina*** Viereck, 1926. Calif. Acad. Sci. Proc. (4) 15: 405. ♂.

marioides Viereck. Nev., Calif., Utah. (***Trachandrena***)
Andrena (***Trachandrena***) ***marioides*** Viereck, 1917. Acad. Nat. Sci. Phila. Proc. 68: 601. ♀.

mariposorum Viereck. Calif. (***?Leucandrena***)
Andrena (***Andrena***) ***mariposorum*** Viereck, 1917. Amer. Ent. Soc. Trans. 43: 382. ♀.

martialis Viereck and Cockerell. Colo. (***Trachandrena***)
Andrena (***Trachandrena***) ***martialis*** Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 5. ♂.
Taxonomy: Cockerell, 1929. Ent. Soc. Amer. Ann. 22: 754.

meadowsi Cockerell. Calif. (Catalina Island).
Andrena meadowsi Cockerell, 1938. Ann. Mag. Nat. Hist. (11) 2: 146. ♂.

media Viereck. N. H.
Andrena (***Andrena***) ***media*** Viereck, 1922. Boston Soc. Nat. Hist. Occas. Papers 5: 41. ♂.

medionitens Cockerell. B. C. and Alta. to Calif. and Colo. (***Thysandrena***)
Andrena medionitens Cockerell, 1902. Ann. Mag. Nat. Hist. (7) 9: 101. ♀.
Taxonomy: Viereck, 1904. Canad. Ent. 36: 192, 194, ♀ ♂.—Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 48, ♀ (var.).
Biology: Clements and Long, 1923. Carnegie Inst. Wash. Pub. 336: 249 (ecol.) (as *madronitens*).

melanochroa fragariana Graenicher. Wis., Que., N. S. to N. C. (***Micrandrena***)
Andrena fragariana Graenicher, 1904. Ent. News 15: 64. ♀ ♂.
Taxonomy: Cockerell, 1932. Canad. Ent. 64: 157, 158, ♀ ♂ (key).

melanochroa melanochroa Cockerell. B. C. to Calif. and Colo. (***Micrandrena***)
Andrena melanochroa Cockerell, 1898. Entomologist 31: 89. ♀ ♂.
Micrandrena pacifica Ashmead, 1899. Amer. Ent. Soc. Trans. 43: 54. ♀ ♂.
Andrena (***Micrandrena***) ***vagans*** Cockerell, 1932. Canad. Ent. 64: 157. ♀. N. syn. (Timberlake).
Taxonomy: Cockerell, 1932. Canad. Ent. 64: 157, ♀ (key).

melanodora Cockerell. South. Calif. On flowers of *Ceanothus*. (***Trachandrena***)
Andrena (***Trachandrena***) ***melandora*** Cockerell, 1932. Pan-Pacific Ent. 8: 173. ♀.

mellea Cresson. N. Mex., Tex. (***Schizandrena***)
Andrena mellea Cresson, 1868. Amer. Ent. Soc. Trans. 1: 384. ♀.
Taxonomy: Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 48 (key).—Cockerell, 1931. Amer. Mus. Novitates 458: 16, ♀ (key).

mellitarsis Viereck. Nev.
Andrena (***Andrena***) ***mellitarsis*** Viereck, 1917. Amer. Ent. Soc. Trans. 43: 384. ♂.

melliventris Cresson. Tex. (***Pterandrena***)
Andrena melliventris Cresson, 1872. Amer. Ent. Soc. Trans. 4: 257. ♀.

mendosa (Viereck). B. C. to Calif., Nev. (***Parandrena***)
Andrena (***Parandrena***) ***mendosa*** Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 588. ♀.

mentzeliae Cockerell. Colo., N. Mex. (***Cnemidandrena***)
Andrena mentzeliae Cockerell, 1897. Entomologist 30: 307. ♀.
Taxonomy: Cockerell, 1931. Amer. Mus. Novitates 458: 14, 15, ♀ ♂.—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 706, 708, ♀ ♂ (key).

merriami Cockerell. N. Mex. (***?Gymnandrena***)
Andrena merriami Cockerell, 1901. Psyche 9: 284. ♀.

mesillae Cockerell. N. Mex.
Andrena mesillae Cockerell, 1896. Ann. Mag. Nat. Hist. (6) 18: 90. ♂.
Taxonomy: Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 49, ♂ (key).

mesoleuca Cockerell. Calif. (***Andrena*** s. str.)
Andrena mesoleuca Cockerell, 1924. Pan-Pacific Ent. 1: 60. ♀.

metea Cockerell. Wyo. (***Andrena*** s. str.)
Andrena metea Cockerell, 1924. Ent. News 35: 350. ♂.

micranthophila Cockerell. Colo., Calif. (***Melandrena***)
Andrena micranthophila Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 432. ♀ ♂.

microchlora Cockerell. Colo., Calif. (***Micrandrena***)
Andrena microchlora Cockerell, 1922. Ann. Mag. Nat. Hist. (9) 10: 265. ♂ ♀.
Andrena microchlora var. ***subalia*** Cockerell, 1936. Pan-Pacific Ent. 12: 143. ♀.
Taxonomy: Lanham, 1941. Ent. Soc. Amer. Ann. 34: 705, 707, ♀ ♂ (key).

microsoma Viereck. Pacific Northwest.
Andrena microsoma Viereck, 1904. Canad. Ent. 36: 194. ♂.

milwaukeensis Graenicher. N. S. to N. J. and Wis. (***Andrena*** s. str.)
Andrena milwaukeensis Graenicher, 1903. Canad. Ent. 35: 164. ♀ ♂.
Taxonomy: Viereck, 1907. Ent. News 18: 283, 285, ♀ ♂ (key).—Atwood, 1934. Canad. Jour. Res. 10: 207, 209, ♀ ♂ (key).
Biology: Brittain, 1933. Canad. Dept. Agr. Bul. 162: 94, figs.

miranda Smith. East. Canada to N. Y., Rocky Mts., Pacific Coast. (***Trachandrena***)
Andrena miranda Smith, 1879. Desc. New Sepcies Hym. Brit. Mus., p. 54. ♀ ♂.
Andrena hippotes Robertson, 1895. Amer. Ent. Soc. Trans. 22: 120. ♀ ♂. N. syn.
Andrena (***Trachandrena***) ***perforatella*** Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 306. ♀. N. syn.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 153, ♀ ♂ (types).—Cockerell, 1906. Psyche 13: 34 (type).—Atwood, 1934. Canad. Jour. Res. 10: 208, 210, ♀ ♂ (key).

moesta Smith. South. Canada, N. Y., Wash., Oreg. (***Andrena*** s. str.)
Andrena moesta Smith, 1879. Desc. New Species Hym. Brit. Mus. p. 54. ♀ ♂.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 153 (type).—Cockerell, 1906. Psyche 13: 34 (type).

moesticolor Viereck and Cockerell. Colo. (***?Andrena*** s. str.)
Andrena moesticolor Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 43: 31. ♀ ♂.

monilicornis Cockerell. N. Mex.
Andrena monilicornis Cockerell, 1896. Canad. Ent. 28: 181. ♂.
Taxonomy: Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 48, ♂ (key).

monogonoparia Viereck. Nev. (***Andrena*** s. str.)
Andrena (***Andrena***) ***monogonoparia*** Viereck, 1917. Acad. Nat. Sci. Phila. Proc. 68: 566. ♂.

moquiorum Viereck and Cockerell. Ariz.
Andrena moquiorum Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 21. ♂.

morrisonella Viereck. Md. and Va. to Ga. (***Trachandrena***)
Andrena (***Scrapter***) ***morrisonella*** Viereck, 1917. Amer. Ent. Soc. Trans. 43: 399. ♀.

moscovensis Viereck and Cockerell. Idaho, Colo. (*Trachandrena*)
Andrena (*Trachandrena*) *moscovensis* Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 13. ♀.
Taxonomy: Cockerell, 1931. Amer. Mus. Novitates 458: 17 (key).

mustelicolor Viereck. Idaho, Wash. to Calif.
Andrena mustelicolor Viereck, 1904. Canad. Ent. 35: 189, 195. ♀ ♂.

nasonii Robertson. East. Canada to Ga., Tex., Colo. (*Simandrena*)
Andrena vestita Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 310. ♂. Preocc.
Andrena nasonii Robertson, 1895. Amer. Ent. Soc. Trans. 22: 120. ♀.
Andrena hartfordensis Cockerell, 1902. Ann. Mag. Nat. Hist. (7) 9: 103. ♀.
Andrena (*Andrena*) *nasonii* var. *fulvodorsata* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 385. ♀.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 190, 192, ♀ ♂ (key).—Viereck, 1907. Ent. News 18: 283, 285 ♀ ♂ (key).

navajorum Viereck and Cockerell. N. Mex.
Andrena navajorum Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 29. ♂.

neonana Viereck. Ga. (*?Micrandrena*)
Andrena (*Scrapter*) *neonana* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 400. ♀.

neurona Viereck. B. C., Wash. (*Micrandrena*)
Andrena neurona Viereck, 1904. Canad. Ent. 36: 191. ♀.

nevadensis (Cresson). Nev., Calif. (*Parandrena*)
Panurgus nevadensis Cresson, 1879. Amer. Ent. Soc. Trans. 7: 214. ♂.
Taxonomy: Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 188, ♂.

nigerrima Casad. N. Mex.
Andrena nigerrima Casad, 1896. Ann. Mag. Nat. Hist. (6) 18: 83. ♀.
Taxonomy: Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 265, 272, ♀ (key).

nigra Provancher. Calif. On flowers of *Phacelia*. (*Melandrena*)
Andrena nigra Provancher, 1896. Nat. Canad. 23: 173. ♀.
Andrena griseonigra Cockerell, 1905. Canad. Ent. 37: 371. ♂.
Andrena subtristis Cockerell, 1905. Canad. Ent. 37: 372. ♀.
Taxonomy: Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 266, 279, ♀ ♂ (key).

nigrae Robertson. Ill., Colo. On flowers of *Salix*. (*Micrandrena*)
Andrena illinoensis var. *bicolor* Robertson, 1898. Acad. Sci. St. Louis, Trans. 8: 46. ♀.
Andrena nigrae Robertson, 1905. Canad. Ent. 37: 237. N. name.

nigrifrons (Cresson). Tex.
Panurgus nigrifrons Cresson, 1878. Amer. Ent. Soc. Trans. 7: 62. ♂.

nigrihirta (Ashmead). Colo. (*Thysandrena*)
Cilissa nigrihirta Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 6. ♂.
Taxonomy: Lanham, 1941. Ent. Soc. Amer. Ann. 34: 705, 708, ♀ ♂ (key).

nigripes Provancher. Calif. (*Gymnandrena*)
Andrena nigripes Provancher, 1895. Nat. Canad. 22: 173. ♀.

nigrocaerulea Cockerell. Wash. to Calif. (*?Gymnandrena*)
Andrena nigrocaerulea Cockerell, 1897. Entomologist 30: 309. ♀ ♂.
Taxonomy: Cockerell, 1932. Canad. Ent. 64: 286 (key).

nigroclypeata Linsley. Calif. (*Oligandrena*)
Andrena nigroclypeata Linsley, 1939. Pan-Pacific Ent. 15: 155. ♀ ♂.

nigrovaria Viereck. Sask. (*?Leucandrena*)
Andrena (*Andrena*) *nigrovaria* Viereck, 1924. Canad. Ent. 56: 237. ♀.

nitidarum Viereck. Alta. (*?Andrena* s. str.)
Andrena (*Andrena*) *nitidarum* Viereck, 1924. Canad. Ent. 56: 78. ♀.

nitidicornis Cockerell. Calif. (*Micrandrena*)
Andrena (*Micrandrena*) *nitidicornis* Cockerell, 1936. Pan-Pacific Ent. 12: 144. ♂.

nitidior Cockerell. N. Mex. (***Pterandrena***)
Andrena nitidior Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 406. ♀.

nivalis Smith. Que., Ont., Conn., N. J., Wis., Ill., Minn., Wyo., Colo., B. C., Wash., Oreg. (***Gymnandrena***)
Andrena nivalis Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 118. ♀ ♂.
Andrena convexa Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 311. ♀ ♂.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 151, ♀ (type).—Cockerell, 1906. Psyche 13: 9 (type).

nivaloides Graenicher. Wis.
Andrena nivaloides Graenicher, 1911. Pub. Mus. Milwaukee, Bul. 1: 235. ♀.

nodosa Viereck. Alta. (***Andrena*** s. str.)
Andrena (***Andrena***) ***nodosa*** Viereck, 1924. Canad. Ent. 56: 238. ♀.

nortoni Viereck. Calif. (***Trachandrena***)
Andrena (***Trachandrena***) ***nortoni*** Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 602. ♀ ♂.

nothocalaidis (Cockerell). B. C. to Colo. and Calif. (***Diandrena***)
Diandrena nothocalaidis Cockerell, 1905. Biol. Soc. Wash. Proc. 18: 183. ♀ ♂.
Andrena (***Parandrena***) ***perchalybea*** Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 591. ♀. N. syn. (Timberlake).

nothoscordi Robertson. Ill. On flowers of *Nothoscordum*. (***Micrandrena***)
Andrena nothoscordi Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 331. ♀.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 191, ♀ (key).

novae-angliae Viereck. Ont., N. S., Conn., Mich. (***Thysandrena***)
Andrena novae-angliae Viereck, 1907. Ent. News 18: 283. ♀.
Taxonomy: Atwood, 1934. Canad. Jour. Res. 10: 207, ♀ (key).

nubecula Smith. East. Canada to Md., Colo., B. C. On flowers of Astereae. (***Cnemidandrena***)
Andrena nubecula Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 117. ♀.
Andrena nubecula tristicornis Cockerell, 1931. Canad. Ent. 63: 22. ♀.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 150 (type).—Robertson, 1902. Amer. Ent. Soc. Trans. 28: 191, 192, ♀ ♂ (key).—Cockerell, 1906. Psyche 13: 9 (type).

nubilifascia Viereck. Calif. ***Ptilandrena***)
Andrena (***Ptilandrena***) ***nubilifascia*** Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 597. ♀.

nubilipennis Viereck. Oreg.
Andrena nubilipennis Viereck, 1904. Canad. Ent. 36: 193. ♀.

nuda Robertson. N. Y. to Md., and west to Colo. (***Trachandrena***)
Andrena nuda Robertson, 1891. Amer. Ent. Soc. Trans. 18: 57. ♀.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 189, ♀ (key).—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 704, ♀ (key).

obscura (Robertson). Conn., Va., Ill. (***Trachandrena***)
Trachandrena obscura Robertson, 1902. Amer. Ent. Soc. Trans. 35: 189. ♀.
Taxonomy: Viereck, 1907. Ent. News 18: 284, ♀ (key).—Cockerell, 1929. Ent. Soc. Amer. Ann. 22: 757, ♀.

obscuripennis Smith. Ga.
Andrena obscuripennis Smith, 1853. Cat. Hym. Ins. Coll. Brit. Mus., v. 1, p. 118. ♀.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 150, ♀ (type).—Cockerell, 1906. Psyche 13: 36, ♀ (type).

obscuripostica Viereck. Nev.
Andrena obscuripostica Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 568. ♀.

occidentalis Cockerell. N. Mex.
Andrena platyparia occidentalis Cockerell, 1896. Ann. Mag. Nat. Hist. (6) 18: 87. ♂.

ochreopleura (Viereck). Wash. (***Trachandrena***)
Trachandrena ochreopleura Viereck, 1904. Canad. Ent. 35: 158. ♀.

oenotherae Timberlake. Calif., Ariz. On flowers of *Oenbthera.* (***Melandrena***)
Andrena oenotherae Timberlake, 1937. Pan-Pacific Ent. 12: 69. ♀ ♂.
Taxonomy: Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 266, 267, ♀ ♂ (key).

olivacea Viereck. Calif. (***Diandrena***)
Andrena (Parandrena) olivacea Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 590. ♀ ♂.

omninigra Viereck. Calif. (***Melandrena***)
Andrena (Andrena) omninigra Viereck, 1917. Amer. Ent. Soc. Trans. 43: 385. ♀.
Taxonomy: Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 265, ♀ (key).

oniscicolor (Viereck). Oreg. (***?Ptilandrena***)
Pterandrena oniscicolor Viereck, 1904. Canad. Ent. 36: 227, 228. ♀.

opacibasis Cockerell. Calif. (***Simandrena***)
Andrena (Platandrena) opacibasis Cockerell, 1936. Pan-Pacific Ent. 12: 146. ♀.

opacissima Cockerell. Idaho, Wash. to Utah and Calif. (***Simandrena***)
Andrena opacissima Cockerell, 1918. Ann. Mag. Nat. Hist. (9) 1: 165. ♀.
Taxonomy: Cockerell, 1933. Pan-Pacific Ent. 9: 158, ♀.—Cockerell, 1936. Ann. Mag. Nat. Hist. (10) 18: 632.

opaciventris Cockerell. Calif. (***Simandrena***)
Andrena opaciventris Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 47. ♀.

orthocarpi Cockerell. Calif. (***Simandrena***)
Andrena (Platandrena) orthocarpi Cockerell, 1936. Pan-Pacific Ent. 12: 147. ♀.
Taxonomy: Lanham, 1947. Pan-Pacific Ent. 23: 72, ♂.

osmioides Cockerell. Calif. On flowers of *Cryptantha.* (***Scoliandrena***)
Andrena osmioides Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 45. ♂.

pacta Viereck. N. Mex. (***?Cnemidandrena***)
Andrena pacta Viereck, 1903. Amer. Ent. Soc. Trans. 43: 54. ♀ ♂.

paduocorum Viereck and Cockerell. Colo.
Andrena paduocorum Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 38. ♂.

paenarugosa Viereck. N. J. (***Trachandrena***)
Andrena paenarugosa Viereck, 1907. Ent. News 18: 285. ♀.

paenefulva Viereck and Cockerell. Colo. (***Andrena*** s. str.)
Andrena paenefulva Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 51. ♀.

pallida Viereck. Alta. (***Andrena*** s. str.)
Andrena (Andrena) pallida Viereck, 1924. Canad. Ent. 56: 78. ♀.

pallidifovea (Viereck). B. C. to Calif. (***Stenandrena***)
Pterandrena pallidifovea Viereck, 1904. Canad. Ent. 36: 195, 227, 228. ♂ ♀.
Andrena plumifera Cockerell, 1916. Canad. Ent. 48: 393. ♀. N. syn. (Timberlake).

pallidiscopa pallidiscopa (Viereck). Oreg., Colo. (***?Ptilandrena***)
Pterandrena pallidiscopa Viereck, 1904. Canad. Ent. 36: 227. ♀.
Pterandrena nudimedicornis Viereck, 1904. Canad. Ent. 36: 227. ♂.
Taxonomy: Timberlake and Cockerell, 1932. Pan-Pacific Ent. 9: 28.

pallidiscopa trifasciata Timberlake and Cockerell. Calif. On flowers of *Lomatium.* (***?Ptilandrena***)
Andrena pallidiscopa trifasciata Timberlake and Cockerell, 1933. Pan-Pacific Ent. 9: 28. [♀.]

papagorum Viereck and Cockerell. Ariz. (***Parandrena***)
Andrena papagorum Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 2. ♀.

parachalybea Viereck. Calif. (***Diandrena***)
Andrena (Parandrena) parachalybea Viereck, 1917. Amer. Ent. Soc. Trans. 43: 391, ♀.

parnassiae Cockerell. Wis. On flowers of *Parnassia.* (***Leucandrena***)
Andrena parnassiae Cockerell, 1902. Ann. Mag. Nat. Hist. (7) 9: 105. ♀.
Taxonomy: Graenicher, 1904. Ent. News 15: 66, ♀ ♂.

peckhami Cockerell. Wis. On flowers of Compositae. (***Leucandrena***)
Andrena peckhami Cockerell, 1902. Ann. Mag. Nat. Hist. (7) 9: 105. ♀.
Taxonomy: Graenicher, 1910. Canad. Ent. 42: 159, ♀ ♂.

pecosana Cockerell. N. Mex. (***Pterandrena***)
Andrena pecosana Cockerell, 1913. Ann. Mag. Nat. Hist. (8) 12: 104. ♀.

pectidis (Cockerell). N. Mex. (***Callandrena***)
Panurgus pectidis Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 148. ♀.
Taxonomy: Cockerell and Porter, 1899. Ann. Mag. Nat. Hist. (7) 4: 418.

pediculihirta Viereck. Calif. (***Ptilandrena***)
Andrena (Ptilandrena) pediculihirta Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 598. ♀.

pensilis Timberlake. Calif. (***Simandrena***)
Andrena (Platandrena) pensilis Timberlake, 1938. Pan-Pacific Ent. 14: 27. ♀ ♂.

perarmata Cockerell. B. C. to Calif. and Colo. (***Andrena*** s. str.)
Andrena perarmata Cockerell, 1898. Entomologist 31: 88. ♂.
Taxonomy: Cockerell, 1911. Ann. Mag. Nat. Hist. (8) 7: 232, ♂.—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 705, 708, ♀ ♂ (key).

perdensa (Viereck). B. C. to Colo. (***Trachandrena***)
Trachandrena perdensa Viereck, 1904. Canad. Ent. 35: 158. ♀.
Taxonomy: Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 10. ♀.

perezana Viereck and Cockerell. Nebr. (***Leucandrena***)
Andrena perezana Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 47. ♀.

perimelas Cockerell. Coastal Calif. (***Gymnandrena***)
Andrena perimelas Cockerell, 1905. Canad. Ent. 37: 371. ♀.

perindotata Viereck. Wash.
Andrena indotata Viereck, 1904. Canad. Ent. 36: 190. ♀. Preocc.
Andrena perindotata Viereck, 1908. Ent. News 19: 42. N. name.

permitis Cresson. Tex. (***Pterandrena***)
Andrena permitis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 257. ♀.

pernuda (Viereck). Wash. (***Trachandrena***)
Trachandrena pernuda Viereck, 1904. Canad. Ent. 35: 159. ♀.

perplexa Smith. Md. to Ga. and Miss. (***Cryptandrena***)
Andrena perplexa Smith, 1853. Cat. Hym. Brit. Mus. v. 1, p. 148. ♀.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 150 (type).—Cockerell, 1906. Psyche 13: 10 (type).

persimulata Viereck. N. S., Que., Ohio, Wis., Alta. (***Gonandrena***)
Andrena (Gonandrena) persimulata Viereck, 1917. Amer. Ent. Soc. Trans. 43: 390. ♀.
Taxonomy: Atwood, 1934. Canad. Jour. Res. 10: 206, 209, ♀ ♂ (key).

personata Robertson. Ill. (***Micrandrena***)
Andrena personata Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 336. ♀ ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 193, ♀ ♂ (key).—Cockerell, 1932. Canad. Ent. 64: 157, 158, ♀ ♂ (key).

pertristis Cockerell. Calif. (***Gymnandrena***)
Andrena pertristis Cockerell, 1905. Canad. Ent. 37: 372. ♀.
Taxonomy: Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 265, 267, ♀ ♂ (key).

phenax Cockerell. Calif.
Andrena phenax Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 188. ♀.

phocata Cockerell. Colo. (***Thysandrena***)
Andrena phocata Cockerell, 1910. Canad. Ent. 42: 369. ♀.

physariae Cockerell. Colo. (*Scaphandrena*)
Andrena physariae Cockerell, 1934. Pan-Pacific Ent. 9: 154. ♀.
Taxonomy: Lanham, 1941. Ent. Soc. Amer. Ann. 34: 706, ♀ (key).

pineti Cockerell. Wyo.
Andrena nigerrima pineti Cockerell, 1931. Amer. Mus. Novitates 458: 13. ♀.
Taxonomy: Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 265, ♀ (key).

piperi Viereck. Wash. to Calif. On flowers of Cruciferae. (*Micrandrena*)
Andrena piperi Viereck, 1904. Canad. Ent. 35: 189. ♀.

placida placida Smith. East. Canada to Md. and west to Alaska, B. C., and Calif. (*Leucandrena*)
Andrena placida Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 112. ♀.
Andrena macilenta Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 313. ♀ ♂.
Andrena macgillivrayi Cockerell, 1897. Entomologist 30: 308. ♀.
Andrena salicacea Robertson, 1900. Acad. Sci. St. Louis, Trans. 10: 48. ♀.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 151 (type of *placida*).—Cockerell, 1906. Psyche 13: 7 (type of *placida*).
Biology: Clements and Long, 1923. Carnegie Inst. Wash. Pub. 336: 249 (ecol.).

placida sapellonis Cockerell. Colo., N. Mex. (*Leucandrena*)
Andrena sapellonis Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 19. ♀.

plana Viereck. Oreg., Calif. On flowers of *Trifolium*. (*Scaphandrena*)
Andrena plana Viereck, 1904. Canad. Ent. 36: 193. ♀.

platyrhina Cockerell. Colo. (*?Scaphandrena*)
Andrena (*Pterandrena*) *platyrhina* Cockerell, 1930. N. Y. Ent. Soc. Jour. 37: 446. ♀.

pluvialis Cockerell. B. C. to Wash. and N. Mex. (*Cryptandrena*)
Andrena pluvialis Cockerell, 1901. Canad. Ent. 33: 154. ♀.
Taxonomy: Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 443, ♂.

polemonii Robertson. Ill. On flowers of *Polemonium*. (*Ptilandrena*)
Andrena polemonii Robertson, 1891. Amer. Ent. Soc. Trans. 18: 54, ♀ ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 190, 192, ♀ ♂ (key).—Robertson 1904. Canad. Ent. 36: 278.

politissima Cockerell. Idaho. (*Trachandrena*)
Andrena (*Trachandrena*) *politissima* Cockerell, 1918. Ann. Mag. Nat. Hist. (9) 166. ♀.

polygoni Viereck and Cockerell. Colo.
Andrena polygoni Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 18. ♂.

porterae Cockerell. Sierra Nevada, Cascade and Rocky Mts. to N. Mex. On flowers of *Ribes*. (*Dactylandrena*)
Andrena porterae Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 401. ♀.
Andrena leptanthi Viereck and Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 14: 27. ♂.
Taxonomy: Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 264, 267, ♀ ♂.
Biology: Linsley, 1937. Pan-Pacific Ent. 13: 157 (stylopization).

postnitens Cockerell. Wyo. (*Trachandrena*)
Andrena (*Trachandrena*) *postnitens* Cockerell, 1931. Amer. Mus. Novitates 458: 15. ♀.

potentillarum Viereck. Alta. to Colo.
Andrena (*Andrena*) *potentillarum* Viereck, 1924. Canad. Ent. 56: 79. ♀.

prima Casad. N. Mex. (*Melandrena*)
Andrena prima Casad, 1896. Ann. Mag. Nat. Hist. (6) 18: 78. ♀.
Taxonomy: Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 48, ♀ (key).

primulifrons Casad. N. Mex. (*Micrandrena*)
Andrena primulifrons Casad, 1896. Canad. Ent. 28: 183. ♂ ♀.
Taxonomy: Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 48, 49, ♂ ♀ (key).

profundiformis Viereck and Cockerell. Colo. (*Trachandrena*)
Andrena (*Trachandrena*) *profundiformis* Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 8. ♂.

pruni Robertson. Ill. to N. J. (***Cryptandrena***)
Andrena pruni Robertson, 1891. Amer. Ent. Soc. Trans. 18: 51. ♀ ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 191, 192, ♀ ♂ (key).

prunicola Cockerell. N. Mex. (***Trachandrena***)
Andrena (*Trachandrena*) *prunicola* Cockerell, 1913. Ann. Mag. Nat. Hist. (8) 12: 375. ♀.

prunifloris Cockerell. N. Mex. (***?Opandrena***)
Andrena prunifloris Cockerell, 1898. Canad. Ent. 30: 147. ♀.
Taxonomy: Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 49, ♀ (key).

prunorum kincaidii Cockerell. B. C. to north. Calif. (***Schizandrena***)
Andrena kincaidii Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 351. ♀.
Andrena (*Andrena*) *shasta* Viereck, 1926. Calif. Acad. Sci. Proc. (4) 15: 402. ♀. N. syn.
Taxonomy: Viereck, 1904. Canad. Ent. 36: 190, 195, ♀ ♂ (key).

prunorum mariformis Cockerell. Calif. (***Schizandrena***)
Andrena prunorum var. *mariformis* Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 46. ♀.

prunorum pascoensis Cockerell. Wash., Oreg. (***Schizandrena***)
Andrena pascoensis Cockerell, 1897. Entomologist 30: 305. ♀.

prunorum pauperatula Cockerell. Alta. (***Schizandrena***)
Andrena prunorum var. *pauperatula* Cockerell, 1938. Canad. Ent. 70: 6. ♀.

prunorum prunorum Cockerell. Rocky Mts. to N. Mex., Ariz., North. Mexico. (***Schizandrena***)
Andrena prunorum Cockerell, 1896. Ann. Mag. Nat. Hist. (6) 18: 81. ♀ ♂.
Andrena fracta Casad and Cockerell, 1896. Ann. Mag. Nat. Hist. (6) 18: 84. ♂ ♀. N. syn.
Andrena prunorum gillettei Cockerell, 1898. Ent. News 9: 172. ♂. N. syn.
Andrena arizonensis Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 42. ♂. N. syn.
Taxonomy: Cockerell, 1914. Ann. Mag. Nat. Hist. (8) 14: 11, ♀ (key).—Cockerell, 1931. Amer. Mus. Novitates 458: 16, ♀ ♂ (key).—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 704, 707, ♀ ♂ (key).

pullmani Viereck. B. C. to Oreg.
Andrena pullmani Viereck, 1904. Canad. Ent. 36: 191, 195. ♀ ♂.

pulverea Viereck. Calif.
Andrena (*Andrena*) *pulverea* Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 569. ♀.

pulverulenta Viereck. Oreg. (***?Gymnandrena***)
Andrena pulverulenta Viereck, 1904. Canad. Ent. 36: 190, 195. ♀ ♂.

purdyi (Cockerell). Calif. (***Diandrena***)
Diandrena purdyi Cockerell, 1936. Pan-Pacific Ent. 12: 155. ♂.

purpurina Viereck and Cockerell. Colo.
Andrena purpurina Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 16. ♀.

puthua (Cockerell). Calif. (***Diandrena***)
Diandrena puthua Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 24. ♂ ("♀"=*beatula* ♂).

pyrrhacita Cockerell. B. C. to Colo., Utah, Calif. (***Andrena*** s. str.)
Andrena pyrrhacita Cockerell, 1917. Ann. Mag. Nat. Hist. (7) 19: 536. ♀.
Andrena pyrrhacita var. *coloradensis* Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 39. ♀.
Andrena pyrrhacita var. *mosina* Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 2: 330. ♀.
Taxonomy: Lanham, 1941. Ent. Soc. Amer. Ann. 34: 705, ♀ (key).

quintiliformis Viereck. Calif. (***Trachandrena***)
Andrena (*Trachandrena*) *quintiliformis* Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 606. ♀.

quintilis Robertson. Ill. to Iowa, S. Dak. (*Trachandrena*)
Andrena quintilis Robertson, 1898. Acad. Sci. St. Louis, Trans. 8: 46. ♀.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 189, ♀ (key).

radmitricha Viereck and Cockerell. Nebr. (*Pterandrena*)
Andrena radmitricha Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 51. ♀.

ramaleyi Cockerell. Colo. (*Cnemidandrena*)
Andrena ramaleyi Cockerell, 1931. Ann. Mag. Nat. Hist. (10) 7: 346. ♀.
Taxonomy: Cockerell, 1931. Amer. Mus. Novitates 458: 14 (key).

reflexa Cresson. Tex. (*Pterandrena*)
Andrena reflexa Cresson, 1872. Amer. Ent. Soc. Trans. 4: 256. ♂.

regularis Malloch. N. Y. to N. S. to B. C. (*Cryptandrena*)
Andrena regularis Malloch, 1917. Brooklyn Ent. Soc. Bul. 12: 91. ♂ ♀.
Taxonomy: Atwood, 1934. Canad. Jour. Res. 10: 207, 209, ♀ ♂ (key).

rehni Viereck. N. J. to Va. (*Trachandrena*)
Andrena rehni Viereck, 1907. Ent. News 18: 284. ♀.

revelstokensis Viereck. B. C. (*Andrena* s. str.)
Andrena (*Andrena*) *revelstokensis* Viereck, 1924. Canad. Ent. 56: 239. ♀.

rhodotricha Linsley. Calif. (*Andrena* s. str.)
Andrena rhodotricha Linsley, 1939. Pan-Pacific Ent. 15: 157. ♀ ♂.
Biology: MacSwain, 1945. Pan-Pacific Ent. 21: 134.

ribesina Cockerell. Colo. (*Andrena* s. str.)
Andrena ribesina Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 433. ♀.
Andrena jacobaea Cockerell, 1915. Ann. Mag. Nat. Hist. (8) 15: 267. ♀. N. syn.

ribifloris Viereck and Cockerell. Colo. (*Andrena* s. str.)
Andrena ribifloris Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 32. ♂ (♀ misdet.).

ricardonis Cockerell. B. C. (*?Pterandrena*)
Andrena ricardonis Cockerell, 1916. Canad. Ent. 48: 272. ♂.

ripariella Cockerell. Calif.
Andrena ripariella Cockerell, 1936. Pan-Pacific Ent. 12: 148. ♂.

robertsoni Dalla Torre. N. S. to Va., west to Minn., Ark., Colo. (*?Gonandrena*)
Andrena serotina Robertson, 1893. Amer. Ent. Soc. Trans. 20: 148. ♀ (♂ misdet.). Preocc.
Anthrena robertsoni Dalla Torre, 1896. Cat. Hym., v. 10, p. 149. N. name.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 193, ♀ ♂ (key).—Atwood, 1934. Canad. Jour. Res. 10: 208, 209, ♀ ♂ (key).

rodecki Cockerell. Colo. (*Trachandrena*)
Andrena (*Trachandrena*) *rodecki* Cockerell, 1929. Ent. Soc. Amer. Ann. 22: 755. ♀.
Taxonomy: Cockerell, 1931. Amer. Mus. Novitates 458: 16, ♀.—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 704, ♀ (key).

rubrotincta Linsley. South. Calif. (*Melandrena*)
Andrena rubrotincta Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 278. ♀.

rudbeckiae Robertson. Ill., Kans. On flowers of Heliantheae. (*Pterandrena*)
Andrena rudbeckiae Robertson, 1891. Amer. Ent. Soc. Trans. 18: 56. ♀ ♂.
Taxonomy: Cockerell, 1899. Ent. News 10: 255, ♂ (key).—Robertson, 1902. Amer. Ent. Soc. Trans. 28: 194, ♀ ♂ (key).

rufojugata Cockerell. Wyo.
Andrena rufojugata Cockerell, 1931. Amer. Mus. Novitates 458: 17. ♀.

rufosignata Cockerell. Wis. (*Andrena* s. str.)
Andrena rufosignata Cockerell, 1902. Canad. Ent. 34: 46. ♀.

rugosa Robertson. N. S. to Md. and Ill. (*Trachandrena*)
Andrena rugosa Robertson, 1891. Amer. Ent. Soc. Trans. 18: 58. ♀ ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 189, 190, ♀ ♂ (key).—Atwood, 1934. Canad. Jour. Res. 10: 208, 210, ♀ ♂ (key).

runcinatae Cockerell. B. C. and Alta. to Colo., N. Dak. (***Simandrena***)
Andrena runcinatae Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 434. ♀ ♂.

saccata Viereck. Wash. to Calif. (***Andrena*** s. str.)
Andrena saccata Viereck, 1904. Canad. Ent. 36: 192, 195. ♀ ♂.
Taxonomy: Cockerell, 1937. Amer. Mus. Novitates 899: 3.

salicicola Viereck and Cockerell. Colo. (***Andrena*** s. str.)
Andrena salicicola Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 52. ♀.

salicifloris Cockerell. B. C. to Oreg. and Colo. (***Trachandrena***)
Andrena salicifloris Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 351. ♀.
Taxonomy: Viereck, 1904. Canad. Ent. 36: 158, 159, ♀ ♂ (var.).

salicinellina Viereck and Cockerell. Colo., Wash. to Ill., and Miss. (***Micrandrena***)
Andrena salicinellina Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 17. ♂.

salictaria Robertson. N. S. to Ill. and Colo. On flowers of *Salix*. (***Micrandrena***)
Andrena salictaria Robertson, 1905. Canad. Ent. 37: 236. ♀ ♂.
Taxonomy: Atwood, 1934. Canad. Jour. Res. 10: 207, 210, ♀ ♂ (key).—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 705, 706, 708, ♀ ♂ (key).
Biology: Salt, 1927. Jour. Expt. Zool. 48: 252 (stylopization).

sancta Viereck. Calif.
Andrena (*Andrena*) *sancta* Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 571. ♀.

sayi Robertson. Ill., Kans. (***Gymnandrena***)
Andrena sayi Robertson, 1891. Amer. Ent. Soc. Trans. 18: 52. ♀ ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 191, 192, ♀ ♂ (key).

scotoptera Cockerell. Tex.
Andrena scotoptera Cockerell, 1934. Amer. Mus. Novitates 732: 1. ♀.

scurra monstrosensis Viereck and Cockerell. B. C. to Colo. (***Scaphandrena***)
Andrena montrosensis Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 48. ♀.

scurra scurra Viereck. Oreg., Calif. (***Scaphandrena***)
Andrena scurra Viereck, 1904. Canad. Ent. 36: 193, 195. ♀ ♂.

scutellinitens Viereck. Calif., Nev. (***Pterandrena***)
Andrena (*Andrena*) *scutellinitens* Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 573. ♀ ♂.

seattlensis Viereck. B. C., Wash.
Andrena seattlensis Viereck, 1904. Canad. Ent. 36: 191, 195. ♀ ♂.

segregans Cockerell. N. Mex. (***?Cnemidandrena***)
Andrena segregans Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 404. ♀ ♂.

semifulva Viereck. Calif. (***Andrena*** s. str.)
Andrena (*Andrena*) *semifulva* Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 575. ♀.

semipolita Viereck. Wash.
Andrena semipolita Viereck, 1904. Canad. Ent. 36: 192. ♀.

semipunctata Cockerell. Wash. to south. Calif. (***Trachandrena***)
Andrena semipunctata Cockerell, 1902. Ann. Mag. Nat. Hist. (7) 9: 102. ♀.
Taxonomy: Viereck, 1904. Canad. Ent. 36: 159, ♀ ♂ (key).

semirufa Cockerell. N. Mex. to Alta. (***Gymnandrena***)
Andrena semirufa Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 407. ♀.
Taxonomy: Cockerell, 1931. Amer. Mus. Novitates 458: 14, ♀ (key).

seneciophila Cockerell. Colo. (***Trachandrena***)
Andrena (*Trachandrena*) *seneciophila* Cockerell, 1928. Psyche 35: 62. ♀.
Taxonomy: Lanham, 1941. Ent. Soc. Amer. Ann. 34: 704, ♀ (key).

sieverti Cockerell. Colo., Wyo., Alta. (***Scaphandrena***)
Andrena sieverti Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 436. ♀.
Andrena sieverti var. *opacicauda* Cockerell, 1936. Amer. Mus. Novitates 831: 1. ♀.
Taxonomy: Cockerell, 1931. Amer. Mus. Novitates 458: 13, ♀ (key).

sigmundi Cockerell. Wis. to N. Y. (*Trachandrena*)
Andrena sigmundi Cockerell, 1902. Canad. Ent. 34: 45. ♀.
Andrena radiatula Cockerell, 1902. Canad. Ent. 34: 46. ♀. N. syn. (Timberlake).

simplex Smith. East. U. S. and Canada.
Andrena simplex Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 114. ♀.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 124 (type).—Cockerell, 1906. Psyche 13: 8 (type).

singularis Viereck. B. C. (*Andrena* s. str.)
Andrena (*Andrena*) *singularis* Viereck, 1924. Canad. Ent. 56: 80. ♀.

sitilae Viereck. Tex. On flowers of *Sitilias*. (*Petrandrena*)
Andrena sitilae Viereck, 1909. Ent. Soc. Wash. Proc. 11: 144. ♀.

sladeni Viereck. B. C. (*Elandrena*)
Andrena (*Andrena*) *sladeni* Viereck, 1924. Canad. Ent. 56: 239. ♀.
Taxonomy: Cockerell, 1932. Canad. Ent. 64: 286, (key).

sola Viereck. B. C., Calif., Ariz.; Baja Calif. (*Cryptandrena*)
Andrena (*Andrena*) *sola* Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 577. ♀.
Andrena carissima Cockerell, 1924. Pan-Pacific Ent. 1: 58. ♀. N. syn. (Timberlake).
Andrena microdonta Cockerell, 1924. Pan-Pacific Ent. 1: 61. ♂. N. syn. (Timberlake).
Andrena ensenadana Cockerell, 1941. San Diego Soc. Nat. Hist. Trans. 9: 345. ♀. N. syn. (Timberlake).

solidaginis Robertson. Nebr. to northeast. U. S. On flowers of Astereae. (*Pterandrena*).
Andrena solidaginis Robertson, 1893. Amer. Ent. Soc. Trans. 18: 55. ♀ ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 194, ♀ ♂ (key).—Viereck, 1907. Ent. News 18: 282, ♀ (key).

solidula Viereck. Wash.
Andrena solidula Viereck, 1904. Canad. Ent. 36: 191, 194. ♀ ♂.

solutula Cockerell. Calif. (*Micrandrena*)
Andrena (*Micrandrena*) *solutula* Cockerell, 1936. Pan-Pacific Ent. 12: 150. ♀.

spaldingi Cockerell. Utah.
Andrena spaldingi Cockerell, 1934. Amer. Mus. Novitates 697: 3. ♀.

speculifera Cockerell. Colo., Wyo. (*Scaphandrena*)
Andrena speculifera Cockerell, 1930 (1929). N. Y. Ent. Soc. Jour. 37: 444. ♀.

sperryi (Cockerell). Calif. (*Diandrena*)
Diandrena sperryi Cockerell, 1937. Amer. Mus. Novitates 948: 14. ♀.

sphaeralceae Linsley. Calif. On flowers of *Sphaeralcea*. (*?Scaphandrena*)
Andrena (*Opandrena*) *sphaeralceae* Linsley, 1939. Pan-Pacific Ent. 15: 160. ♀ ♂.

sphecodina Cockerell and Casad. Colo., N. Mex. (*Trachandrena*)
Andrena sphecodina Cockerell and Casad, 1896. Ann. Mag. Nat. Hist. (6) 18: 78. ♀ ♂.
Taxonomy: Cockerell, 1929. Ent. Soc. Amer. Ann. 22: 754.

sphecodiniformis Viereck and Cockerell. Colo. (*Trachandrena*)
Andrena (*Trachandrena*) *sphecodiniformis* Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 6. ♂.

spiraeana Robertson. Conn. to Va., west to Ill. and Colo. On flowers of *Aruncus*. (*Trachandrena*)
Andrena spiraeana Robertson, 1895. Amer. Ent. Soc. Trans. 22: 120. ♀ ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 189, 190, ♀ ♂ (key).—Viereck, 1907. Ent. News 23: 107 (key).—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 704, 707, ♀ ♂ (key).

stenosoma Viereck. Nev.
Andrena (*Andrena*) *stenosoma* Viereck, 1925. Amer. Ent. Soc. Trans. 51: 135. ♂.

stictogastra Viereck. Calif.
Andrena (*Andrena*) ***stictogastra*** Viereck, 1917. Acad. Nat. Sci. Phila. Proc. 68: 579. ♀.

striatifrons Cockerell. B. C., Wash. (***Trachandrena***)
Andrena striatifrons Cockerell, 1897. Entomologist 30: 308. ♀.
Taxonomy: Viereck, 1904. Canad. Ent. 36: 159, ♀ (key).

stricklandi Cockerell. Alta. (***Trachandrena***)
Andrena (*Trachandrena*) ***stricklandi*** Cockerell, 1936. Canad. Ent. 68: 275. [♀.]

suavis Timberlake. Calif. On flowers of *Ranunculus*. (***Ptilandrena***)
Andrena (*Ptilandrena*) ***suavis*** Timberlake, 1938. Pan-Pacific Ent. 14: 24. ♀ ♂.

subarctica Cockerell. Alta. (Hay River).
Andrena subarctica Cockerell, 1936. Canad. Ent. 68: 282. ♀.

subcandida Viereck. B. C. to Calif. (***Thysandrena***)
Andrena subcandida Viereck, 1904. Canad. Ent. 36: 193. ♀.

subchalybea Viereck. Calif. (***Diandrena***)
Andrena (*Parandrena*) ***subchalybea*** Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 593. ♀.

subcommoda Cockerell. Wis. (***Schizandrena***)
Andrena subcommoda Cockerell, 1902. Canad. Ent. 34: 45. ♀.

subdistans Viereck. Wash., Oreg. (***Thysandrena***)
Andrena subdistans Viereck, 1904. Canad. Ent. 36: 193. ♀.

submariae Viereck and Cockerell. Idaho and Kans. to Colo., N. Mex. (***Trachandrena***)
Andrena (*Trachandrena*) ***submariae*** Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 4. ♀.

submaura Linsley. Calif. On flowers of *Ribes*. (***Dactylandrena***)
Andrena submaura Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 269. ♂ ♀.

submoesta Viereck. Calif. (***Diandrena***)
Andrena (*Parandrena*) ***submoesta*** Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 594. ♀.
Diandrena marinensis Cockerell, 1936. Pan-Pacific Ent. 12: 153. ♂. N. syn. (Timberlake).

subnigripes Viereck. Calif. (***Cryptandrena***)
Andrena (*Andrena*) ***subnigripes*** Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 581. ♀.

subtilicornis Viereck. Calif.
Andrena subtilicornis Viereck, 1926. Pomona Jour. Ent. Zool. 18: 4. ♂.

subtilis semicyanea Cockerell. Calif. (***Cryptandrena***)
Andrena semicyanea Cockerell, 1924. Pan-Pacific Ent. 1: 58. ♀.

subtilis seminigra Viereck. Oreg. (***Cryptandrena***)
Andrena seminigra Viereck, 1904. Canad. Ent. 36: 190. ♀.

subtilis subtilis Smith. B. C. to Oreg. (***Cryptandrena***)
Andrena subtilis Smith, 1879. Descr. New Species Hym. Brit. Mus., p. 55. ♀.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 155 (type).—Cockerell, 1906. Psyche 13: 6 (type).

subtrita Cockerell. Nev. (***Thysandrena***)
Andrena subtrita Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 263. ♀.

surda Cockerell. Wyo., Colo., Oreg., Calif. (***Cnemidandrena***)
Andrena hirticincta var. ***surda*** Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 264. ♂.
Andrena pertarda Cockerell, 1916. Entomologist 49: 157. ♀. N. syn. (Timberlake).
Taxonomy: Cockerell, 1931. Amer. Mus. Novitates 458: 13, 14, ♀ ♂ (key).—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 706, 708, ♀ ♂ (key).

swenki Viereck and Cockerell. Pacific Northwest and Rocky Mts. to N. Mex. (*Trachandrena*)
Andrena (*Trachandrena*) *swenki* Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 3. ♀.

synthiridis Cockerell. Colo. (*Thysandrena*)
Andrena synthiridis Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 436. ♀.

tacitula Cockerell. Colo. (*Trachandrena*)
Andrena tacitula Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 262. ♂.
Andrena (*Trachandrena*) *tacitula* var. *grossulariae* Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 9. ♂.
Taxonomy: Cockerell, 1916. Canad. Ent. 48: 253.—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 704, 707, ♀ ♂ (key).

taeniata Viereck. Calif. (*Thysandrena*)
Andrena (*Andrena*) *taeniata* Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 538. ♀.

territa Cockerell. Wash. (*Ptilandrena*)
Andrena coerulea var. *territa* Cockerell, 1898. Entomologist 31: 89. ♀.
Taxonomy: Viereck, 1904. Canad. Ent. 36: 227, ♀ (key).

tetonorum Viereck and Cockerell. Nebr.
Andrena tetonorum Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 24. ♂.

texana Cresson. Tex.
Andrena texana Cresson, 1872. Amer. Ent. Soc. Trans. 4: 258. ♂.

thaspii Graenicher. N. S. to N. J. west to Ind., Wis. On flowers of Umbelliferae. (*Andrena* s. str.)
Andrena thaspii Graenicher, 1903. Canad. Ent. 35: 162. ♀ ♂.
Taxonomy: Cockerell, 1912. Ann. Mag. Nat. Hist. (8) 9: 382, ♀ (var.).—Atwood, 1934. Canad. Jour. Res. 10: 208, 209, ♀ ♂ (key).

thaspiiformis Viereck. Calif. (*Andrena* s. str.)
Andrena (*Andrena*) *perezana thaspiiformis* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 386. ♀.

timberlakei Cockerell. Calif. On flowers of *Cryptantha*. (*Micrandrena*)
Andrena timberlakei Cockerell, 1929. Ann. Mag. Nat. Hist. (10) 4: 300. ♀ ♂.
Taxonomy: Cockerell, 1931. Canad. Ent. 64: 158, ♀ ♂.

tincta Viereck. Colo. (*Andrena* s. str.)
Andrena (*Andrena*) *tincta* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 387. ♀.

titusi Viereck and Cockerell. Colo. (*Trachandrena*)
Andrena (*Trachandrena*) *titusi* Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 12. ♀.

tonkaworum Viereck. Tex. (*Pterandrena*)
Andrena (*Ptilandrena*) *tonkaworum* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 396. ♀.

topazana Cockerell. Colo., Idaho, Wyo. (*Andrena* s. str.)
Andrena topazana Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 434. ♀.
Taxonomy: Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 44, 45, ♀.—Cockerell, 1927. Ent. Soc. Amer. Ann. 20: 397, ♀.

townsendi Viereck and Cockerell. N. Mex. (*Pterandrena*)
Andrena townsendi Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 49. ♀.
Taxonomy: Cockerell, 1931. Amer. Mus. Novitates 458: 14, ♀ (key).

trachandrenoides Viereck. B. C.? (*Trachandrena*)
Andrena trachandrenoides Viereck, 1904. Canad. Ent. 36: 190, 195. ♀ ♂.

transnigra paysoni Cockerell. Wyo. (*Cryptandrena*)
Andrena transnigra paysoni Cockerell, 1924. Ent. News 35: 349. ♀.

transnigra transnigra Viereck. B. C. to Calif., Colo. (*Cryptandrena*)
Andrena transnigra Viereck, 1904. Canad. Ent. 36: 191. ♀.
Taxonomy: Cockerell, 1931. Amer. Mus. Novitates 458: 18, ♀.

trapezoidea Viereck. Tex. (*Micrandrena*)
Andrena (*Scrapter*) *trapezoidea* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 402. ♀.

trapezoidina Viereck and Cockerell. Nebr. (*Leucandrena*)
Andrena trapezoidina Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 58. ♀.

trevoris Cockerell. B. C., Wash. (*Pterandrena*)
Andrena trevoris Cockerell, 1897. Entomologist 30: 306. ♂.

triangularis Viereck. B. C. (*Parandrena*)
Andrena (*Parandrena*) *triangularis* Viereck, 1924. Canad. Ent. 55: 243. ♀.

tridens Robertson. Ill. to N. J. (*?Andrena* s. str.)
Andrena tridens Robertson, 1902. Amer. Ent. Soc. Trans. 28: 192. ♂.

trivialis Viereck. Calif. (*Ptilandrena*)
Andrena (*Andrena*) *trivialis* Viereck, 1917. Amer. Ent. Soc. Trans. 43: 388. ♀.

trizonata (Ashmead). Colo. (*Thysandrena*)
Cilissa trizonata Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 6. ♀.

tumida Viereck. Maine to Conn.
Andrena (*Andrena*) *tumida* Viereck, 1922. Boston Soc. Nat. Hist. Occas. Papers 5: 35. ♀ ♂.

unicula Cockerell. Colo. (*Elandrena*)
Andrena unicula Cockerell, 1934. Pan-Pacific Ent. 9: 155. ♂.
Taxonomy: Lanham, 1941. Ent. Soc. Amer. Ann. 34: 707, ♂ (key).

vancouverensis Viereck. B. C.
Andrena (*Andrena*) *vancouverensis* Viereck, 1924. Canad. Ent. 56: 80. ♂.

vanduzeei Linsley. Calif. (*Melandrena*)
Andrena vanduzeei Linsley, 1938. Calif. Acad. Sci. Proc. (4) 23: 280. ♀ ♂.

vandykei Cockerell. Calif. (*Micrandrena*)
Andrena (*Micrandrena*) *vandykei* Cockerell, 1936. Pan-Pacific Ent. 12: 151 ♂.

variantia Linsley, n. name. B. C.
Andrena (*Andrena*) *varia* Viereck, 1924. Canad. Ent. 56: 81. ♀. Preocc. by Perez, 1895.

vegana Viereck and Cockerell. N. Mex. (*Micrandrena*)
Andrena vegana Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 17. ♀.

verbesinae Viereck and Cockerell. Tex. (*Callandrena*)
Andrena verbesinae Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 1. ♀ ♂.

verecunda Cresson. Tex. (*Pterandrena*)
Andrena verecunda Cresson, 1872. Amer. Ent. Soc. Trans. 4: 257. ♀.

veris Cockerell. Colo. (*Trachandrena*)
Andrena (*Trachandrena*) *veris* Cockerell, 1934. Pan-Pacific Ent. 9: 156. ♀ ♂.
Taxonomy: Lanham, 1941. Ent. Soc. Amer. Ann. 34: 704, 707, ♀ ♂ (key).

vernoni Viereck. B. C. (*?Schizandrena*)
Andrena vernoni Viereck, 1904. Canad. Ent. 36: 190, 195. ♀ ♂.

vestali Cockerell. Colo., Nebr.
Andrena vestali Cockerell, 1913. Ann. Mag. Nat. Hist. (8) 11: 64. ♂.
Andrena vestali var. *dolichocera* Viereck and Cockerell, 1914. U. S. Natl. Mus. Proc. 48: 19. ♂.
Taxonomy: Lanham, 1941. Ent. Soc. Amer. Ann. 34: 707, ♂ (key).

viburnella Graenicher. Conn. and N. J. to Md., Miss., west to B. C. and Oreg., Tex. (*Cryptandrena*)
Andrena viburnella Graenicher, 1903. Canad. Ent. 35: 165. ♀ ♂.
Taxonomy: Viereck, 1904. Canad. Ent. 36: 189, 194, ♀ ♂ (key).—Viereck, 1907. Ent. News 18: 365.—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 705, 708, ♀ ♂.—Michener, 1947. Amer. Midland Nat. 38: 445, ♀ ♂.

vicina Smith. N. S. to Md., west to Colo., B. C., Oreg. (***Gymnandrena***)
Andrena vicina Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 112. ♀.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 151 (type).—Cockerell, 1906. Psyche 13: 9.—Atwood, 1934. Canad. Jour. Res. 10: 207, 210, figs., ♀ ♂ (key).—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 705, 708, ♀ ♂ (key).
Biology: Packard, 1869. Guide Study Ins., p. 144 (nesting habits).—Clements and Long, 1923. Carnegie Inst. Wash. Pub. 336: 249 (ecol.).—Salt, 1927. Jour. Expt. Zool. 48: 251 (stylopization).

vicinoides Viereck. B. C., Wash.
Andrena vicinoides Viereck, 1904. Canad. Ent. 36: 191. ♀.

victima Smith. N. S. to Ont. and Conn. (***Gymnandrena***)
Andrena victima Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 113. ♀.
Andrena desponsa Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 114. ♂.
Taxonomy: Morice and Cockerell, 1901. Canad. Ent. 33: 123, 124, ♀ ♂ (types).—Cockerell, 1906. Psyche 13: 36, ♀ (type).

vierecki Cockerell. Colo., Calif. (***Thysandrena***)
Andrena vierecki Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 14: 26. ♀.
Andrena boharti Linsley, 1939. Pan-Pacific Ent. 15: 159. ♀ ♂. N. syn. (Timberlake).
Taxonomy: Lanham, 1941. Ent. Soc. Amer. Ann. 34: 706, 707, ♀ ♂ (key).

violae Robertson. N. Y. to Md., to Ill. to Colo. On flowers of *Viola*. (***Iomelissa***)
Andrena violae Robertson, 1891. Amer. Ent. Soc. Trans. 18: 53. ♀ ♂.
Taxonomy: Cockerell, 1914. Ann. Mag. Nat. Hist. (8) 14: 10, ♀ (key).—Lanham, 1941. Ent. Soc. Amer. Ann. 34: 706, 707, ♀ ♂ (key).

vulgaris Viereck. N. H.
Andrena* (*Andrena*) *vulgaris Viereck, 1922. Boston Soc. Nat. Hist. Occas. Papers 5: 40. ♂.

vulpicolor Cockerell. N. Mex.
Andrena vulpicolor Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 20: 512. ♀.
Taxonomy: Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 49, ♀ (key).—Cockerell, 1931. Amer. Mus. Novitates 458: 13, ♀ (key).

walleyi Cockerell. B. C. (***Elandrena***)
Andrena walleyi Cockerell, 1932. Canad. Ent. 64: 286. ♀.

washingtoni Cockerell. B. C. to Wash. and Colo. (***Andrena*** s. str.)
Andrena washingtoni Cockerell, 1901. Psyche 9: 284. ♀ ♂.
Taxonomy: Viereck, 1904. Canad. Ent. 36: 192, 195, ♀ ♂ (key).
Biology: Clements and Long, 1923. Carnegie Inst. Wash. Pub. 336: 249 (ecol.).

weedi Viereck. Maine to Conn. (***Trachandrena***)
Andrena weedi Viereck, 1907. Ent. News 18: 284, 285. ♀ ♂.

wellesleyana Robertson. Mass., Conn., Mich. (***Parandrena***)
Andrena wellesleyana Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 337. ♀ ♂.

wheeleri pallidior Cockerell. N. S. and Maine to Alta. (***Simandrena***)
Andrena wheeleri pallidior Cockerell, 1938. Canad. Ent. 70: 7. ♀.
Taxonomy: Atwood, 1934. Canad. Jour. Res. 10: 208, 209, ♀ ♂ (key).

wheeleri wheeleri Graenicher. Wis., Colo. On flowers of Umbelliferae. (***Simandrena***)
Andrena wheeleri Graenicher, 1904. Ent. News 15: 65. ♀ ♂.

wilkella (Kirby). Europe, Asia; N. S. to Md. and Wis. (***Taeniandrena***)
Melitta wilkella Kirby, 1802. Monog. Apum Angliae, v. 2, p. 145. ♀ ♂.
Andrena winkleyi Viereck, 1907. Ent. News 18: 283, 285. ♀ ♂.
Taxonomy: Malloch, 1918. Biol. Soc. Wash. Proc. 31: 61.—Atwood, 1934. Canad. Jour. Res. 10: 207, 210, ♀ ♂ (key).
Biology: Brittain, 1933, Canada Dept. Agr. Bul. 162: 94.—Atwood, 1933. Canad. Jour. Res. 9: 456.

w-scripta Viereck. B. C. to Calif. (***Thysandrena***)
Andrena w-scripta Viereck, 1904. Canad. Ent. 36: 193, 194. ♀ ♂.

xanthigera Cockerell. N. Mex. (*Cnemidandrena*)
Andrena xanthigera Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 402. ♀.
Andrena albovirgata Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 403. ♀.
Taxonomy: Cockerell, 1931. Canad. Ent. 63: 22, ♀.—Cockerell, 1931. Amer. Mus. Novitates 458: 19, ♀.

yumorum Viereck. South. Calif.
Andrena (*Andrena*) *yumorum* Viereck, 1916. Acad. Nat. Sci. Phila. Proc. 68: 585. ♂.

ziziae Robertson. Conn. to Ill. and Minn. On flowers of Umbelliferae. (*Micrandrena*)
Andrena ziziae Robertson, 1891. Amer. Ent. Soc. Trans. 18: 55. ♀ ♂.
Taxonomy: Robertson, 1902. Amer. Ent. Soc. Trans. 28: 193, ♀ ♂ (key).—Cockerell, 1932. Canad. Ent. 64: 157, 158, ♀ ♂ (key).

ziziaeformis Cockerell. Va. (?*Micrandrena*)
Andrena ziziaeformis Cockerell, 1908. Canad. Ent. 40: 234. ♀.
Taxonomy: Cockerell, 1932. Canad. Ent. 64: 157, ♀ (key).

zygadeni Cockerell. Calif., Utah. On flowers of *Zygadenus*. (*Xanthandrena*)
Andrena zygadeni Cockerell, 1932. Pan-Pacific Ent. 8: 174. ♀ ♂.

Nomina Nuda in Andrena Fabricius

Andrena alienoides (Viereck) Smith, 1910. Ins. New Jersey, p. 690.

Andrena delawarearum (Viereck) Smith, 1910. Ins. New Jersey, p. 690.

Andrena sparsipilosa Pierce, 1908. U. S. Natl. Mus. Bul. 66: 108.

Andrena tuberculata (Ashmead) Smith, 1910. Ins. New Jersey, p. 690.

Genus MEGANDRENA Cockerell

Andrena subg. *Megandrena* Cockerell, 1927. Pan-Pacific Ent. 4: 42.
Type: *Andrena* (*Megandrena*) *enceliae* Cockerell. Monob.

enceliae (Cockerell). South. Calif.
Andrena (*Megandrena*) *enceliae* Cockerell, 1927. Pan-Pacific Ent. 4: 43. ♀.

Genus ANCYLANDRENA Cockerell

Andrena subg. *Ancylandrena* Cockerell, 1930. Pan-Pacific Ent. 7: 5.
Type: *Andrena* (*Ancylandrena*) *heterodoxa* Cockerell. Monob.

atoposoma (Cockerell). South. Calif.
Andrena (*Ancylandrena*) *heterodoxa* Cockerell, 1930. Pan-Pacific Ent. 7: 6. ♂ ♀. Preocc.
Andrena atoposoma Cockerell, 1934. Pan-Pacific Ent. 10: 82. N. name.

Subfamily OXAEINAE[68]

Genus PROTOXAEA Cockerell and Porter

Protoxaea Cockerell and Porter, 1899. Ann. Mag. Nat. Hist. (7) 4: 410.
Type: *Megacilissa gloriosa* Fox. Monob. and orig. desig.

gloriosa gloriosa (Fox). N. Mex., Ariz.
Megacilissa gloriosa Fox, 1893. Psyche 6: 421. ♀.

gloriosa pallida Cockerell. Tex.
Protoxaea gloriosa pallida Cockerell, 1934. Canad. Ent. 66: 153. ♀ ♂.

nigerrima arizonica Cockerell. Ariz.
Protoxaea nigerrima arizonica Cockerell, 1936. Amer. Mus. Novitates 831: 6. ♀.

nigerrima nigerrima (Friese). Mexico.
Oxaea nigerrima Friese, 1912. Arch. f. Naturgesch. 78: 199. ♀.

texana (Friese). Tex.
Oxaea texana Friese, 1898. K. K. Naturhist. Hofmus. Ann. 13: 85. ♂.
Taxonomy: Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 6: 275, ♂ ♀.

tristis (Gribodo). Mexico, Ariz.
Oxaea Tristis Gribodo, 1894. Soc. Ent. Ital. Bol. 26: 278. ♂.

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[68] By E. Gorton Linsley, University of California.

Subfamily PANURGINAE[69]

Genus PSAENYTHIA Gerstaecker

Subgenus PSAENYTHIA Gerstaecker

Psaenythia Gerstaecker, 1868. Arch. f. Naturgesch. 34: 111.
Type: ***Psaenythia philanthoides*** Gerstaecker. Desig. by Sandhouse, 1943.

This subgenus is South American.

Subgenus PROTANDRENA Cockerell

Protandrena Cockerell, 1896. Ann. Mag. Nat. Hist. (6) 18: 91.—Cockerell, 1896. Canad. Ent. 28: 184.
Type: ***Andrena maurula*** Cockerell. Desig. by Sandhouse, 1943.
Protoandrena Cresson, 1928. Amer. Ent. Soc. Mem. 5: 58. Emend.
Taxonomy: Cockerell, 1896. Ann. Mag. Nat. Hist. (6) 18: 92.

asclepiadis (Cockerell), n. comb. N. Dak., Nebr., N. Mex.
Andrena asclepiadis Cockerell, 1896. Ann. Mag. Nat. Hist. (6) 18: 86. ♂.

bancrofti (Dunning), n. comb. Colo.
Protandrena Bancrofti Dunning, 1897. Canad. Ent. 29: 264. ♀.
Taxonomy: Cockerell, 1921. Amer. Mus. Novitates 24: 13, ♀.

bishoppi (Crawford), n. comb. Tex.
Protandrena bishoppi Crawford, 1916. Ent. Soc. Wash. Proc. 19: 128. ♀.

cockerelli (Dunning), n. comb. N. J., Nebr., Kans., Colo.
Protandrena Cockerelli Dunning, 1897. Canad. Ent. 29: 47. ♀.
Taxonomy: Cockerell, 1899. Ent. News 10: 3, ♂.

heteromorpha (Cockerell), n. comb. N. Mex.
Andrena heteromorpha Cockerell, 1896. Canad. Ent. 28: 180. ♀ ♂.

maurula (Cockerell), n. comb. Tex.
Andrena maurula Cockerell, 1896. Canad. Ent. 28: 179. ♀.

mexicanorum (Cockerell), n. comb. Colo., N. Mex., Tex.; north. Mexico.
Andrena mexicanorum Cockerell, 1896. Ann. Mag. Nat. Hist. (6) 18: 85. ♀.

swenki (Crawford), n. comb. Nebr.
Protandrena swenki Crawford, 1913. U. S. Natl. Mus. Proc. 45: 241. ♀.

trifoliata (Cockerell), n. comb. N. Mex.
Andrena trifoliata Cockerell, 1896. Canad. Ent. 28: 179. ♀.

Genus PERDITA Smith

Perdita Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 128.
Type: ***Perdita halictoides*** Smith. Monob.
Macrotera Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 130.
Type: ***Macrotera bicolor*** Smith. Monob.
Cockerellia Ashmead, 1898. Psyche 8: 284.
Type: (***Perdita hyalina*** Cresson) = ***Perdita albipennis hyalina*** Cresson. Monob. and orig. desig.
Philoxanthus Ashmead, 1898. Psyche 8: 285.
Type: ***Perdita beata*** Cockerell. Monob. and orig. desig.
Macroteropsis Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 85.
Type: ***Perdita latior*** Cockerell. Monob. and orig. desig.
Neoperdita Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 85.
Type: ***Perdita zebrata*** Cresson. Monob. and orig. desig.
Perdita subg. ***Pentaperdita*** Cockerell and Porter, 1899. Ann. Mag. Nat. Hist. (7) 4: 415.
Type: ***Perdita albovittata*** Cockerell. Monob.
Perdita subg. ***Tetraperdita*** Cockerell and Porter, 1899. Ann. Mag. Nat. Hist. (7) 4: 415.
Type: ***Perdita sexmaculata*** Cockerell. Monob. and orig. desig.

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[69] By Charles D. Michener, University of Kansas.

Perdita subg. ***Geoperdita*** Cockerell and Porter, 1899. Ann. Mag. Nat. Hist. (7) 4: 415.
Type: ***Perdita chamaesarachae*** Cockerell. Monob.
Perdita subg. ***Perditella*** Cockerell, 1899. Psyche 8: 312.
Type: (***Perdita laneae*** Cockerell) = ***Perdita larreae*** Cockerell. Orig. desig.
Glossoperdita Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 43.
Type: ***Glossoperdita pelargoides*** Cockerell. Monob.
Perdita subg. ***Alloperdita*** Viereck, 1917. Amer. Mus. Nat. Hist. Bul. 37: 241.
Type: ***Perdita novae-angliae*** Viereck. Monob.
Zaperdita Robertson, 1918. Ent. News 29: 91.
Type: ***Perdita maura*** Cockerell. Monob. and orig. desig.
Perdita subg. ***Lutziella*** Cockerell, 1922. Amer. Mus. Novitates 47: 1. Preocc.
Type: ***Perdita (Lutziella) opuntiae*** Cockerell. Monob. and orig. desig.
Xerophasma Cockerell, 1923. Amer. Mus. Novitates 66: 1.
Type: (***Xerophasma bequaerti*** Cockerell) = ***Perdita bequaertiana*** Cockerell. Monob. and orig. desig.
Perdita subg. ***Cockerellula*** Strand, 1932. Folia Zool. Hydrobiol. Riga 4: 196. N. name for *Lutziella*.

Revision: Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 25–107.—Cockerell, 1922. Amer. Mus. Novitates 33: 14 (partial key).

aeneifrons Cockerell. South. N. Mex. On flowers of *Isocoma*.
Perdita aeneifrons Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 91. ♀.

affinis Cresson. Colo., N. Mex. On flowers of Compositae.
Perdita affinis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 69. ♀ ♂.

ainsliei Crawford. Iowa.
Perdita ainsliei Crawford, 1932. Ent. Soc. Wash. Proc. 34: 74. ♂ ♀.

albipennis albipennis Cresson. N. Dak., S. Dak., Nebr., Colo., N. Mex., Ariz., Tex. On flowers of *Helianthus*.
Perdita (?) ***albipennis*** Cresson, 1868. Amer. Ent. Soc. Trans. 1: 386. ♀.
Perdita albipennis var. ***lingualis*** Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 105. ♀.

albipennis helianthi Cockerell. Colo., N. Mex., Chihuahua. On flowers of *Helianthus*.
Perdita albipennis var. ***helianthi*** Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 104. ♂ ♀.

albipennis hyalina Cresson. Colo., N. Mex. On flowers of *Helianthus*.
Perdita hyalina Cresson, 1878. Amer. Ent. Soc. Trans. 7: 68. ♂.
Taxonomy: Cockerell, 1899. Psyche 8: 419, ♂.

albipennis pasonis Cockerell. West. Tex.
Perdita albipennis var. ***helianthi*** mut. ***pasonis*** Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 105. ♂.
Taxonomy: Cockerell, 1899. Psyche 8: 419.

albovittata Cockerell. N. Mex., Ariz., Calif. On flowers of *Ximenesia; Gutierrezia; Baileya*.
Perdita albovittata Cockerell, 1895. Acad. Nat. Sci. Phila. Proc. 47: 15. ♀.

asteris Cockerell. N. Mex., Ariz. On flowers of *Aster* and *Heterotheca*.
Perdita asteris Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 93. ♀.

atramentata Cockerell. South. Calif., Mexico; deserts. On flowers of *Prosopis* (Timberlake).
Perdita exclamans atramentata Cockerell, 1923. Calif. Acad. Sci. Proc. (4) 12: 96. ♂.

aureovittata Cockerell. Calif.
Perdita (Cockerellia) aureovittata Cockerell, 1916. Canad. Ent. 48: 391. ♀.

austini Cockerell. South. N. Mex. On flowers of *Gutierrezia*.
Perdita austini Cockerell, 1895. Acad. Nat. Sci. Phila. Proc. 47: 13. ♂.

baccharidis Cockerell. Ariz. On flowers of *Baccharis*.
Perdita baccharidis Cockerell, 1900. Entomologist 33: 61. ♀.

baileyae Cockerell. N. Mex. On flowers of *Baileya*.
Perdita baileyae Cockerell, 1909. Canad. Ent. 41: 151. ♂.

beata Cockerell. N. Mex. On flowers of *Ximenesia*.
Perdita beata Cockerell, 1895. Psyche 1 (sup.): 10. ♀.

bequaerti Viereck. N. J. to Ga., west to Okla. and Miss. On flowers of *Helianthus*.
Perdita (Cockerellia) bequaerti Viereck, 1917. Amer. Mus. Nat. Hist. Bul. 37: 241. ♀ ♂.
Perdita (Cockerellia) wickhami Cockerell, 1922. Amer. Mus. Novitates 33: 13. ♀.

bequaertiana Cockerell, n. name. Tex.
Xerophasma bequaerti Cockerell, 1923. Amer. Mus. Novitates 66: 2. ♀. Preocc. by Viereck, 1917.

bigeloviae Cockerell. Colo., N. Mex. On flowers of *Isocoma*.
Perdita bigeloviae Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 87. ♂ ♀.

biparticeps Cockerell. N. Mex. On flowers of *Pectis*.
Perdita biparticeps Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 84. ♂.

birkmanni Cockerell. Tex.
Perdita birkmanni Cockerell, 1916. Ann. Mag. Nat. Hist. (8) 17: 282. ♀.

bishoppi Cockerell. Tex. On flowers of *Heterotheca*.
Perdita bishoppi Cockerell, 1906. Entomologist 39: 148. ♀ ♂.
Taxonomy: Cockerell, 1922. Amer. Mus. Novitates 33: 7.

boltoniae (Robertson). Ill. On flowers of *Boltonia*.
Perditella boltoniae Robertson, 1902. Canad. Ent. 34: 321. ♀ ♂.

bruneri Cockerell. Man., Wis., Ill., Kans., west to Alta. and Colo. On flowers of *Solidago* and *Grindelia*.
Perdita bruneri Cockerell, 1897. Ent. News 8: 23. ♂ (♀ misdet.).
Perdita Cockerelli Crawford, 1906. Canad. Ent. 38: 282. ♂ ♀.

californica (Cresson). Calif. On flowers of *Calochortus*.
Macrotera californica Cresson, 1878. Amer. Ent. Soc. Trans. 7: 71. ♂.

callicerata Cockerell. N. Mex., Ariz. On flowers of *Baileya*.
Perdita callicerata Cockerell, 1896. N. Y. Ent. Soc. Jour. 4: 206 (*nom. nud.*).—Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 153. ♂.
Perdita callicerata var. *chrysoceras* Cockerell, 1897. N. Mex. Agr. Expt. Sta. Bul. 24: 43. ♂.
Perdita callicerata var. *leucura* Cockerell, 1909. Canad. Ent. 41: 152. ♀.
Taxonomy: Cockerell, 1897. Acad. Nat. Sci. Phila Proc. 49: 354. ♀.

calloleuca Cockerell. Colo.
Perdita calloleuca Cockerell, 1922. Amer. Mus. Novitates 33: 12. ♂.

cambarella Cockerell. Tex. On flowers of *Heterotheca*.
Perdita cambarella Cockerell, 1906. Entomologist 39: 150. ♀ ♂.

cephalotes (Cresson). Nev.
Macrotera cephalotes Cresson, 1878. Amer. Ent. Soc. Trans. 7: 71. ♂.

chamaesarachae Cockerell. N. Mex., Ariz. On flowers of *Chamaesaracha*.
Perdita chamaesarachae Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 65. ♂ ♀.

chrysophila Cockerell. N. Mex. On flowers of *Ximenesia* and *Hymenoxys*.
Perdita chrysophila Cockerell, 1896. N. Y. Ent. Soc. Jour. 4: 206. ♂.
Taxonomy: Cockerell, 1904. Entomologist 37: 6, ♂.

chrysopsina Timberlake. N. J., Md., D. C., N. C., Ga., Miss. On flowers of *Chrysopsis*.
Perdita chrysopsina Timberlake, 1928. Hawaii. Ent. Soc. Proc. 7: 155. ♂ ♀.

citrinella Graenicher. Alta., N. Dak., Wis. On flowers of *Petalostemon*.
Perdita citrinella Graenicher, 1910. Canad. Ent. 42: 103. ♀.
Taxonomy: Crawford, 1912. Canad. Ent. 44: 359, ♂ ♀.

cladothricis Cockerell. N. Mex. On flowers of *Cladothrix* and other composites.
Perdita cladothricis Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 82. ♀ ♂.

claypolei Cockerell. Calif. On flowers of *Eriogonum.*
Perdita claypolei Cockerell, 1901. Canad. Ent. 33: 281. ♀.

cleomellae Cockerell. Calif. On flowers of *Cleomella.*
Perdita cleomellae Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 193. ♀ ♂.

consobrina Timberlake. S. C.
Perdita consobrina Timberlake, 1928. Amer. Mus. Novitates 321: 3. ♀.

coreopsidis Cockerell. Tex. On flowers of *Coreopsis.*
Perdita coreopsidis Cockerell, 1906. Entomologist 39: 126. ♀ ♂.

crassiceps Cockerell. N. Mex.
Perdita crassiceps Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 97. ♂.

crawfordi Cockerell. Nebr., Colo. On flowers of *Grindelia.*
Perdita crawfordi Cockerell, 1901. Entomologist 34: 190. ♂ ♀.

crotonis crotonis Cockerell. Kans., N. Mex. On flowers of *Croton.*
Perdita crotonis Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 64. ♀ ♂.

crotonis undecimalis Cockerell. N. Mex.
Perdita crotonis undecimalis Cockerell, 1916. Ann. Mag. Nat. Hist. (8) 17: 281. ♀.

dallasiana Cockerell. Tex. On flowers of *Helianthus.*
Perdita dallasiana Cockerell, 1906. Entomologist 39: 178. ♂.

dasylirii Cockerell. N. Mex., Ariz. On flowers of *Agave*, ?*Nolina.*
Perdita dasylirii Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 539. "♀" = ♂ (♂ misdet.).
Perdita nolinae Cockerell, 1922. Amer. Mus. Novitates 33: 11. ♀.

dinognatha Cockerell. Calif. On flowers of *Sphaeralcea.*
Perdita dinognatha Cockerell, 1922. U. S. Natl. Mus. Proc. 60 (18): 19. ♂.

dolichocephala Swenk and Cockerell. Nebr. On flowers of *Helianthus.*
Perdita dolichocephala Swenk and Cockerell, 1907. Ent. News 18: 54. ♀.

dubia Cockerell. Colo.
Perdita dubia Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 75. ♂.

eriogoni Cockerell. Colo.
Perdita eriogoni Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 621. ♀ ♂.

exclamans exclamans Cockerell. N. Mex., ?Calif., north. Mexico. On flowers of *Prosopis.*
Perdita exclamans Cockerell, 1895. Psyche 1 (sup.): 5. ♂.

exclamans imperialis Cockerell. Calif. On flowers of *Prosopis.*
Perdita exclamans imperialis Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 193. ♀.

fallax fallax Cockerell. Nebr., N. Mex. On flowers of Compositae.
Perdita fallax Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 90. ♀.
Perdita erigeronis Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 398. ♂.

fallax fontis Cockerell. Colo.
Perdita fallax fontis Cockerell, 1922. Amer. Mus. Novitates 33: 9. ♀.

fedorensis Cockerell. Tex.
Perdita fedorensis Cockerell, 1916. Ann. Mag. Nat. Hist. (8) 17: 280. ♀.

floridensis Timberlake. Fla.
Perdita floridensis Timberlake, 1928. Amer. Mus. Novitates 321: 7. ♂ ♀.

florissantella Cockerell. Colo. On flowers of *Eriogonum.*
Perdita florissantella Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 440. ♂ ♀.

foxi Cockerell. N. Mex.
Perdita foxi Cockerell, 1895. Acad. Nat. Sci. Phila. Proc. 47: 18. ♂.

fraterna Timberlake. Colo.
Perdita fraterna Timberlake, 1929. N. Y. Ent. Soc. Jour. 39: 123. ♂.

georgica Timberlake. Fla., Ga., Miss.
Perdita georgica Timberlake, 1928. Hawaii. Ent. Soc. Proc. 7: 158. ♂ ♀.

gerardiae Crawford. N. C., Fla., Miss. On flowers of *Gerardia*.
Perdita gerardiae Crawford, 1932. Ent. Soc. Wash. Proc. 34: 75. ♂ ♀.

gerhardi arenicola Timberlake. Ill.
Perdita gerhardi arenicola Timberlake, 1929. N. Y. Ent. Soc. Jour. 37: 119. ♀ ♂.

gerhardi gerhardi Viereck. Wis., Ind. On flowers of *Monarda*.
Perdita gerhardi Viereck, 1904. Ent. News 15: 21. ♀ ♂.

graenicheri Timberlake. Fla.
Perdita graenicheri Timberlake, 1947. Ent. Soc. Wash. Proc. 49: 82. ♀ ♂.

grandiceps Cockerell. N. Mex. On flowers of *Solidago*.
Perdita grandiceps Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 96. ♂.
Taxonomy: Cockerell, 1899. Canad. Ent. 31: 256. ♀.

gutierreziae Cockerell. Nebr., N. Mex. On flowers of *Gutierrezia*.
Perdita gutierreziae Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 85. ♂.
Taxonomy: Swenk and Cockerell, 1907. Ent. News 18: 56. ♂ ♀.

halictoides Smith. Fla.
Perdita halictoides Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 128. ♀.
Taxonomy: Cockerell, 1904. Canad. Ent. 36: 303.—Timberlake, 1928. Hawaii. Ent. Soc. Proc. 7: 155.

haplura Cockerell. Tex.
Perdita haplura Cockerell, 1922. U. S. Natl. Mus. Proc. 60 (18): 19. ♀.

heliophila Cockerell. Colo., N. Mex.
Perdita heliophila Cockerell, 1916. Ann. Mag. Nat. Hist. (8) 17: 281. ♀.

heliotropii Cockerell. Calif.; north. Mexico. On flowers of *Heliotropium*.
Perdita heliotropii Cockerell, 1900. Entomologist 33: 63. ♀ ♂.

heterothecae Cockerell. Ariz., south. Calif. On flowers of *Heterotheca*.
Perdita heterothecae Cockerell, 1900. Entomologist 33: 62. ♀ ♂.

hirsuta Cockerell. N. Mex.
Perdita hirsuta Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 79. ♂.

howardi Cockerell. N. Mex.; Mexico.
Perdita howardi Cockerell, 1899. Ann. Mag. Nat. Hist. (7) 3: 492. ♀ ♂.

ignota Cockerell. Nebr. Colo., N. Mex., Tex. On flowers of Compositae.
Perdita ignota Cockerell, 1896. Ent. Monthly Mag. 32: 220. ♀.
Taxonomy: Cockerell, 1907. Colo. Univ., Studies 4: 247. ♀ ♂.—Cockerell 1922. Amer. Mus. Novitates 33: 7.

interrupta Cresson. Calif.
Perdita interrupta Cresson, 1878. Amer. Ent. Soc. Trans. 7: 70. ♂.

interserta Cockerell. Calif.
Perdita interserta Cockerell, 1922. U. S. Natl. Mus. Proc. 60 (18): 20. ♀.

isopappi Timberlake. Tex.
Perdita isopappi Timberlake, 1928. Hawaii. Ent. Soc. Proc. 7: 152. ♂ ♀.

jonesi Cockerell. Tex. On flowers of *Monarda; Petalostemon*.
Perdita jonesi Cockerell, 1906. Entomologist 39: 177. ♀ ♂.

lacteipennis canadensis Crawford. Alta., N. Dak.
Perdita canadensis Crawford, 1912. Canad. Ent. 44: 360. ♀.
Taxonomy: Stevens, 1919. Canad. Ent. 51: 205. ♂.

lacteipennis indianensis Cockerell. Ind.
Perdita pallidipennis indianensis Cockerell, 1922. Amer. Mus. Novitates 33: 2. ♂ ♀.

lacteipennis lacteipennis Swenk and Cockerell. Wis., Ill., Nebr., Kans., Colo. On flowers of *Helianthus*.
Perdita lacteipennis Swenk and Cockerell, 1907. Ent. News 18: 51. ♀ ♂.
Perdita pallidipennis Graenicher, 1910. Canad. Ent. 42: 101. ♀ ♂.
Taxonomy: Cockerell, 1922. Amer. Mus. Novitates 33: 2.

larreae Cockerell. N. Mex., Ariz. On flowers of *Larrea*.
Perdita larreae Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 62. ♂.

Perdita larreae var. ***modesta*** Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 355. ♂.
Perdita laneae Cockerell, 1899. Psyche 8: 312. Error for *larreae*.
Taxonomy: Timberlake, 1928. Amer. Mus. Novitates 321: 11. ♀.

larrearum Cockerell. N. Mex. On flowers of *Larrea*.
Perdita larrearum Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 63. ♀.

lasiogastra Timberlake. Tex.
Perdita lasiogastra Timberlake, 1929. N. Y. Ent. Soc. Jour. 37: 115. ♂.

laticeps Cockerell. N. Mex.
Perdita laticeps Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 98. ♂.
Taxonomy: Has been synonymized with *albovittata* but Timberlake considers it distinct.

laticincta Swenk and Cockerell. N. Dak., Nebr., Colo. On flowers of *Helianthus*.
Perdita laticincta Swenk and Cockerell, 1907. Ent. News 18: 52. ♀ ♂.

latior Cockerell. N. Mex., Ariz. On flowers of *Sphaeralcea*.
Perdita latior Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 53. ♂ ♀.

layiae layiae Cockerell. Calif. (San Miguel Island). On flowers of *Layia*. Another subspecies occurs in Lower California.
Perdita layiae Cockerell, 1938. Ann. Mag. Nat. Hist. (11) 2: 152. ♀ ♂.

lepachidis Cockerell. N. Mex. On flowers of *Ratibida*.
Perdita lepachidis Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 106. ♂.

lepidii Cockerell. Colo. On flowers of *Lepidium*.
Perdita lepidii Cockerell, 1907. Entomologist 40: 266. ♀.

luciae Cockerell. Ariz.; north. Mexico.
Perdita luciae Cockerell, 1899. Ann. Mag. Nat. Hist. (7) 3: 494. ♂.

luteiceps Cockerell. Colo.
Perdita luteiceps Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 74. ♂.
Taxonomy: Timberlake, 1928. N. Y. Ent. Soc. Jour. 37: 112, ♂ ♀.

luteola Cockerell. Nebr., N. Mex. On flowers of *Isocoma* and *Gutierrezia*.
Perdita luteola Cockerell, 1894. Ent. News 5: 328. ♂.

lutzi Cockerell. Ariz.
Perdita lutzi Cockerell, 1922. Amer. Mus. Novitates 33: 7. ♀.

macrostoma Cockerell. Calif. On flowers of *Calochortus*.
Perdita macrostoma Cockerell, 1922. U. S. Natl. Mus. Proc. 60 (18): 18. ♂ ♀.
maculigera Cockerell. N. Mex. On flowers of *Salix*.
Perdita maculigera Cockerell, 1896. Ent. News 7: 255. ♂.

maculipennis bilineata Timberlake. Mo.
Perdita maculipennis var. ***bilineata*** Timberlake, 1929. N. Y. Ent. Soc. Jour. 37: 121. ♀ ♂.
maculipennis maculipennis Graenicher. Wis., Ill.
Perdita maculipennis Graenicher, 1910. Canad. Ent. 42: 102. ♀.

maculipes Cockerell. N. Mex. On flowers of *Isocoma*.
Perdita maculipes Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 87. ♂.

marcialis Cockerell. N. Mex. On flowers of *Larrea*.
Perdita marcialis Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 62. ♂.

martini Cockerell. N. Dak., N. Mex.
Perdita martini Cockerell, 1895. Acad. Nat. Sci. Phila. Proc. 47: 14. ♂.
Taxonomy: Stevens, 1919. Canad. Ent. 51: 207. ♂ ♀.

maura Cockerell. Wis., Ind., Ill., Nebr., Kans., Colo. On flowers of *Physalis*.
Perdita maura Cockerell, 1901. Entomologist 34: 191. ♂ ♀.
Perdita bisignata Cockerell, 1922. Amer. Mus. Novitates 33: 11. ♀.
Taxonomy: Cockerell, 1922. Ann. Mag. Nat. Hist. (9) 10: 268.

melanochlora Cockerell. Ariz.
Perdita melanochlora Cockerell, 1922. Amer. Mus. Novitates 33: 7. ♀.

melanostoma Swenk and Cockerell. Nebr. On flowers of *Gutierrezia*.
Perdita melanostoma Swenk and Cockerell, 1907. Ent. News 18: 57. ♀.

mellina Cockerell. Ariz. On flowers of *Heterotheca.*
Perdita mellina Cockerell, 1900. Entomologist 33: 62. ♂.

mentzeliae Cockerell. Colo., N. Mex. On flowers of *Mentzelia.*
Perdita mentzeliae Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 60. ♂ ♀.

mentzeliarum Cockerell. N. Mex., Ariz. On flowers of *Mentzelia.*
Perdita mentzeliarum Cockerell, 1897. N. Mex. Agr. Expt. Sta. Bul. 24: 43. ♀ ♂.
Perdita mentzeliarum var. ***lauta*** Cockerell, 1905. Entomologist 38: 145. ♀ ♂.

minima Cockerell. Ariz., Calif. On flowers of *Euphorbia.*
Perdita minima Cockerell, 1923. Amer. Mus. Novitates 66: 4. ♀.
Taxonomy: Cockerell, 1925. Pan-Pacific Ent. 1: 179, ♂.

miricornis Cockerell. Wyo., Colo.
Perdita miricornis Cockerell, 1922. Amer. Mus. Novitates 33: 9. ♂ ♀.
Perdita miricornis var. ***leucorhina*** Cockerell, 1922. Amer. Mus. Novitates 33: 10. ♀.

mitchelli Timberlake. N. C., Miss.
Perdita mitchelli Timberlake, 1947. Ent. Soc. Wash. Proc. 49: 81. ♀ ♂.

monardae Viereck. N. J. On flowers of *Monarda.*
Perdita monardae Viereck, 1904. Ent. News 15: 22. ♀ ♂.

nebrascensis Swenk and Cockerell. Nebr., Kans., Colo. On flowers of *Helianthus.*
Perdita nebrascensis Swenk and Cockerell, 1907. Ent. News 18: 53. ♀ ♂.

nevadensis Cockerell. Nev.
Perdita nevadensis Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 58. ♀.

nigricollis Timberlake. B. C.
Perdita nigricollis Timberlake, 1929. Pan-Pacific Ent. 6: 54. ♀.

nitidella Cockerell. N. Mex. On flowers of *Isocoma.*
Perdita nitidella Cockerell, 1895. Acad. Nat. Sci. Phila. Proc. 47: 16. ♂.

novae-angliae Viereck. Mass., Conn., N. J., Md.
Perdita novae-angliae Viereck, 1907. Ent. News 18: 394. ♀ ♂.
Perdita novaeangliae Viereck, 1917. Amer. Mus. Nat. Hist. Bul. 37: 241. Emend.

nuda Cockerell. N. Mex.
Perdita nuda Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 93. ♀.

numerata Cockerell. N. Mex., Ariz. On flowers of *Salix.*
Perdita numerata Cockerell, 1895. Amer. Ent. Soc. Trans. 22: 296. ♀.
Taxonomy: Cockerell, 1916. Ann. Mag. Nat. Hist. (8) 17: 281, ♂.

obliqua Timberlake. Ariz.
Perdita obliqua Timberlake, 1928. Pan-Pacfiic Ent. 5: 26. ♀.

obscurata Cresson. N. J., N. C., Ga., Ala., Fla. On flowers of *Hydrocotyle.*
Perdita obscurata Cresson, 1878. Amer. Ent. Soc. Trans. 7: 70. ♀ ♂.
Perdita bradleyi Viereck, 1907. Ent. News 18: 393. ♂.

8-maculata 8-maculata (Say). N. B. to S. C., west to Ill. and Miss. On flowers of Astereae; Heliantheae.
Panurgus 8-maculatus Say, 1824. In Keating, Narr. Long's 2nd Exped., v. 2, p. 350. ♂ ♀.
Perdita octomaculata Dalla Torre, 1896. Cat. Hym., v. 10, p. 173. Emend.

8-maculata terminata Cockerell. Nebr.
Perdita octomaculata terminata Cockerell, 1922. Amer. Mus. Novitates 33: 8. ♂ ♀.

opacifrons Timberlake. Colo.
Perdita opacifrons Timberlake, 1929. N. Y. Ent. Soc. Jour. 37: 113. ♂.

opuntiae Cockerell. Colo. On flowers of *Opuntia.*
Perdita (Lutziella) opuntiae Cockerell, 1922. Amer. Mus. Novitates 47: 2. ♂ ♀.
Biology: Custer, 1928. Psyche 35: 67–84.—Custer, 1929. Canad. Ent. 61: 49.—Custer, 1929. Psyche 36: 293.

oregonensis Timberlake. Oreg.
Perdita oregonensis Timberlake, 1929. Pan-Pacific Ent. 6: 52. ♂.

pallidior Cockerell. N. Mex. On flowers of *Mentzelia.*
Perdita pallidior Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 61. ♂ ♀.
Perdita pulchrior Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 62. ♂.

pectidis Cockerell. N. Mex. On flowers of *Pectis,* sometimes *Wedeliella* and *Kallstroemia.*
Perdita pectidis Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 83. ♀ ♂.

pelargoides (Cockerell). Calif. On flowers of *Hugelia.*
Glossoperdita pelargoides Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 43. ♀.

pellucida Cockerell. N. Mex. On flowers of *Isocoma.*
Perdita pellucida Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 88. ♂.

perpallida Cockerell. Man., N. Dak., Nebr. On flowers of *Petalostemon.*
Perdita perpallida Cockerell, 1901. Entomologist 34: 190. ♀ ♂.
Taxonomy: Swenk and Cockerell, 1907. Ent. News 18: 57.—Stevens, 1919. Canad. Ent. 51: 207, ♀ ♂.

perpulchra Cockerell. N. Mex.; north. Mexico. On flowers of *Ximenesia.*
Perdita perpulchra Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 99. ♀.
Taxonomy: Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 398, ♂.

phaceliae Cockerell. N. Mex. On flowers of *Phacelia.*
Perdita phaceliae Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 2: 450. ♀.

phymatae Cockerell. N. Mex. On flowers of *Isocoma* and *Gutierrezia.*
Perdita phymatae Cockerell, 1895. Acad. Nat. Sci. Phila. Proc. 47: 12. ♀.

platyura Cockerell. N. Mex.
Perdita platyura Cockerell, 1922. Ann. Mag. Nat. Hist. (9) 10: 547. ♀.

pratti Cockerell. Tex. On flowers of *Helenium*?
Perdita pratti Cockerell, 1906. Entomologist 39: 125. ♀.

punctata Cockerell. Nebr., Colo. On flowers of *Solidago.*
Perdita sexmaculata var. ***punctata*** Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 71. ♀.

punctifera Cockerell. Ariz.
Perdita punctifera Cockerell, 1914. Ent. Soc. Wash. Proc. 16: 32. ♀.

punctosignata Cockerell. N. Mex.; north. Mex. On flowers of *Prosopis.*
Perdita punctosignata Cockerell, 1895. Psyche 7 (supp.): 6. ♂.

pyrifera Cockerell. Calif.
Perdita pyrifera Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 192. ♀.

quadrangularis Cockerell. N. Mex., Tex.
Perdita quadrangularis Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 129. ♂.

rectangulata Cockerell. Colo. On flowers of *Solidago.*
Perdita rectangulata Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 72. ♀ (♂misdet.).

rehni Cockerell. N. Mex.
Perdita Rehni Cockerell, 1907. Ann. Mag. Nat. Hist (7) 20: 131. ♀.

rhodura Cockerell. N. Mex. On flowers of *Chrysothamnus.*
Perdita rhodura Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 20: 511. ♀ ♂.

rhois reducta Cockerell. Calif. On flowers of *Rhus, Eriogonum.*
Perdita rhois mut. ***reducta*** Cockerell, 1901. Canad. Ent. 33: 283. ♀.

rhois rhois Cockerell. Calif. On flowers of *Rhus, Eriogonum.*
Perdita rhois Cockerell, 1901. Canad. Ent. 33: 282. ♀.
Perdita hypoxantha Cockerell, 1914. Ann. Mag. Nat. Hist. (8) 13: 424. ♂. N. syn. (Timberlake).

ruficauda Cockerell. Calif. On flowers of *Lotus.*
Perdita ruficauda Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 44. ♀.
Taxonomy: Cockerell, 1922. U. S. Natl. Mus. Proc. 60: 17. ♀ ♂.

salicis coloradana Timberlake. Colo.
Perdita salicis coloradana Timberlake, 1929. N. Y. Ent. Soc. Jour. 37: 111. ♀.

salicis salicis Cockerell. Colo., N. Mex., north. Mexico. On flowers of *Salix*.
Perdita salicis Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 80. ♀ ♂.

semicaerulea Cockerell. N. Mex., Tex. On flowers of *Larrea*.
Perdita semicaerulea Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 64. ♀.

semicrocea Cockerell. N. Mex. On flowers of Compositae.
Perdita semicrocea Cockerell, 1895. Acad. Nat. Sci. Phila. Proc. 47: 13. ♀.

senecionis Cockerell. N. Mex. On flowers of *Senecio*.
Perdita senecionis Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 94. ♀.

sexmaculata Cockerell. Colo., N. Mex., Tex. On flowers of *Chamaesaracha*.
Perdita sexmaculata Cockerell, 1895. Acad. Nat. Sci. Phila. Proc. 47: 12. ♀.
Perdita anograe Cockerell, 1902. Amer. Nat. 36: 812. ♂. N. syn. (Timberlake).
Taxonomy: Cockerell and Porter, 1899. Ann. Mag. Nat. Hist (7) 4: 416, ♀ ♂.—Timberlake, 1929. N. Y. Ent. Soc. Jour. 37: 118, ♂.

sidae Cockerell. N. Mex. On flowers of *Sida*.
Perdita sidae Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 353. ♀ ♂.

snowii Cockerell. Colo., N. Mex. On flowers of *Grindelia*.
Perdita snowii Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 73. ♀.
Taxonomy: Cockerell, 1910. Psyche 17: 244, ♂.

solidaginis Cockerell. Colo.
Perdita solidaginis Cockerell, 1922. Amer. Mus. Novitates 33: 12. ♂.

solitaria Cockerell. N. Mex., Ariz. On flowers of *Pectis*.
Perdita solitaria Cockerell, 1896. N. Y. Ent. Soc. Jour. 4: 206 (nom. nud.).—Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 152. ♀.

sphaeralceae alticola Cockerell. N. Mex. On flowers of *Sphaeralcea*.
Perdita sphaeralceae race *alticola* Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 68. ♀ ♂.
Perdita sphaeralceae race *alticola* mut. *suffusa* Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 68. ♂.

sphaeralceae sphaeralceae Cockerell. N. Mex., north. Mexico. On flowers of *Sphaeralcea*.
Perdita sphaeralceae Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 66. ♀ ♂.
Perdita sphaeralceae var. *ridens* Cockerell, 1922. Ann. Mag. Nat. Hist. (9) 10: 547. ♂.

stottleri flavida Swenk and Cockerell. Alta., Nebr. On flowers of *Gutierrezia* and *Solidago*.
Perdita stottleri flavida Swenk and Cockerell, 1907. Ent. News 18: 58. ♀ ♂.

stottleri stottleri Cockerell. Colo., N. Mex. On flowers of *Chrysothamnus* and *Gutierrezia*.
Perdita stottleri Cockerell, 1896. N. Y. Ent. Soc. Jour. 4: 205. ♀.
Taxonomy: Cockerell, 1904. Entomologist 37: 6, ♂.

subfasciata Cockerell. N. Mex. On flowers of *Chrysothamus*.
Perdita subfasciata Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 20: 512. ♀.

subtristis Cockerell. Colo.
Perdita subtristis Cockerell, 1933. Canad. Ent. 65: 234. ♀.

swenki Crawford. Alta., N. Dak., Ill., Nebr.
Perdita swenki Crawford, 1915. Insecutor Inscitiae Menstruus 3: 109. ♂ ♀.

tarda Cockerell. N. Mex., north. Mexico. On flowers of *Gutierrezia*.
Perdita tarda Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 85. ♂.

texana (Cresson). Tex.
Macrotera texana Cresson, 1878. Amer. Ent. Soc. Trans. 7: 70. ♀.
Macrotera megacephala Cresson, 1878. Amer. Ent. Soc. Trans. 7: 71. ♂.

timberlakei Cockerell. Calif. On flowers of *Eriogonum*.
Perdita timberlakei Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 194. ♀ ♂.

tortifoliae Cockerell. Colo. On flowers of *Chrysothamnus.*
Perdita tortifoliae Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 440. ♀.

townsendi Cockerell. N. Mex. On flowers of *Chrysothamnus.*
Perdita townsendi Cockerell, 1896. N. Y. Ent. Soc. Jour. 4: 204. ♀ ♂.

tridentata Stevens. N. Dak., Kans.
Perdita tridentata Stevens, 1919. Canad. Ent. 51: 206. ♂.
Taxonomy: Stevens, 1921. Canad. Ent. 53: 66, ♀.

trisignata Cockerell. Calif.
Perdita trisignata Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 76. ♀.

utahensis Cockerell. Utah.
Perdita utahensis Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 106. ♀.

vagans Cockerell. N. Mex. On flowers of *Ximenesia.*
Perdita vagans Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 101. ♂.

verbesinae collaris Cockerell. N. Mex.
Perdita verbesinae collaris Cockerell, 1916. Ann. Mag. Nat. Hist. (8) 17: 281. ♂.

verbesinae verbesinae Cockerell. Tex., N. Mex., Ariz. On flowers of *Ximenesia*
Perdita verbesinae Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 102. ♀ ♂.
Perdita verbesinae mut. *intermedia* Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 103. ♀.
Perdita verbesinae mut. *nigrior* Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 103. ♀.
Perdita verbesinae mut. *cyanella* Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 104. ♂.
Perdita verbesinae mut. *maculata* Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 104. ♂.
Taxonomy: Cockerell, 1899. Psyche 8: 323.

vespertilio Cockerell. N. Mex. On flowers of *Chrysopsis.*
Perdita vespertilio Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 95. ♂.
Taxonomy: Cockerell, 1906. Entomologist 39: 148, ♀.

vierecki Cockerell. N. Mex.
Perdita Viereckl Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 129. ♀ ♂.

wheeleri Timberlake. Ariz.
Perdita wheeleri Timberlake, 1928. Amer. Mus. Novitates 321: 5. ♂.

wilmattae Cockerell. Colo. On flowers of *Phacelia.*
Perdita wilmattae Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 441. ♂ ♀.

wootonae Cockerell. Nebr., Colo., N. Mex. On flowers of *Mentzelia.*
Perdita wootonae Cockerell, 1898. Ent. News 9: 215.

wunderi Cockerell. Colo.
Perdita wunderi Cockerell, 1922. Amer. Mus. Novitates 33: 10. ♀.

wyomingensis Cockerell. Wyo.
Perdita wyomingensis Cockerell, 1922. Amer. Mus. Novitates 33: 13. ♀.

xanthismae sideranthi Cockerell. Tex. On flowers of *Sideranthus* and *Isopappus.*
Perdita xanthismae sideranthi Cockerell, 1906. Entomologist 39: 178. ♀.

xanthismae xanthismae Cockerell. Tex. On flowers of *Xanthisma.*
Perdita xanthismae Cockerell, 1905. Ent. News 16: 331. ♀.

zebrata Cresson. Mont., Wyo., Nebr., N. Mex., west to Nev. On flowers of *Peritoma.*
Perdita zebrata Cresson, 1878. Amer. Ent. Soc. Trans. 7: 69. ♀ (part).
Perdita canina Cockerell, 1895. Acad. Nat. Sci. Phila. Proc. 47: 17. ♂.
Perdita bakerae Cockerell, 1896. Acad. Nat. Sci. Phila. Proc. 48: 69. ♂ ♀.
Taxonomy: Cockerell, 1903. *In* Viereck, Amer. Ent. Soc. Trans. 29: 51.
Biology: Custer, 1929. Canad. Ent. 61: 49.

zonalis Cresson. Oreg., Nev., Calif. On flowers of Compositae.
Perdita zonalis Cresson, 1879. Amer. Ent. Soc. Trans. 7: 202. ♀.
Taxonomy: Timberlake, 1929. Pan-Pacific Ent. 6: 49, ♀ ♂.

Nomen Nudum in Perdita

Perdita excisa Timberlake, 1928. Amer. Mus. Novitates 321:10.

Genus PANURGINUS Nylander

Panurginus Nylander, 1848. Notiser Sällskapet Flora Fauna Fenn. 1: 223.
Type: ***Panurginus niger*** Nylander. Monob.
Greeleyella Cockerell, 1904. Entomologist 37: 235.
Type: ***Greeleyella beardsleyi*** Cockerell. Monob. and orig. desig.
Birkmania Viereck, 1909. Ent. Soc. Wash. Proc. 11: 50.
Type: (***Birkmania andrenoides*** Viereck) = ***Panurginus polytrichus*** Cockerell. Monob. and orig. desig.
Revisions: Crawford, 1926. Ent. Soc. Wash. Proc. 28: 207–214.—Michener, 1935. Canad. Ent. 67: 275–278 (species with blackfaced males).

armaticeps Cockerell. South. Calif.
Panurginus armaticeps Cockerell, 1916. Ann. Mag. Nat. Hist. (8) 17: 280. "♀" = ♂.
Taxonomy: Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 322. ♂ ♀.

atramontensis Crawford. N. C., Ga., Miss.
Panurginus atramontensis Crawford, 1926. Ent. Soc. Wash. Proc. 28: 210. ♂ ♀.

atriceps (Cresson). Idaho, Wash., Oreg., Calif.
Calliopsis atriceps Cresson, 1878. Amer. Ent. Soc. Trans. 7: 67. ♂.
Taxonomy: Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 194, ♀.—Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 198, ♂ ♀.

bakeri Crawford. Colo., Wash., Oreg.
Panurginus bakeri Crawford, 1926. Ent. Soc. Wash. Proc. 28: 213. ♂.
Panurginus rohweri Crawford, 1932. Ent. Soc. Wash. Proc. 34: 78. Proposed unnecessarily to replace *bakeri* Crawford.

beardsleyi (Cockerell). N. Dak., Nebr., Colo. On flowers of *Malvastrum*.
Greeleyella beardsleyi Cockerell, 1904. Entomologist 37: 236. ♀.
Panurginus malvastri Swenk and Cockerell, 1907. Ent. News 18: 179. ♂ ♀.
Taxonomy: Cockerell, 1906. Canad. Ent. 38: 164. ♂.

bilobatus Michener. South. Calif.
Panurginus bilobatus Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 322. ♂ ♀.

ceanothi Michener. South. Calif.
Panurginus ceanothi Michener, 1935. Pan-Pacific Ent. 11: 180. ♂.

cressoniellus Cockerell. Colo., N. Mex.
Calliopsis clypeata Cresson, 1878. Amer. Ent. Soc. Trans. 7: 67. ♂. Preocc.
Panurginus cressoniellus Cockerell, 1898. Canad. Ent. 30: 29. N. name.
Panurginus cressoniellus calochorti Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 222. ♀.
?***Panurginus verus*** Cockerell, 1901. Psyche 9: 163. ♀.
Taxonomy: Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 350, ♂ ♀.—Viereck, 1903. Amer. Ent. Soc. Trans. 29: 49, ♂.—Cockerell, 1912. Ent. News 23: 445.

emarginatus Michener. Calif.
Panurginus emarginatus Michener, 1935. Pan-Pacific Ent. 11: 179. ♂ ♀.

gabrielis Michener. South. Calif.
Panurginus gabrielis Michener, 1935. Canad. Ent. 67: 276. ♂.
Taxonomy: Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 321.

gracilis Michener. Calif.
Panurginus gracilis Michener, 1935. Canad. Ent. 67: 276. ♂ ♀.

maritimus Michener. Calif.
Panurginus maritimus Michener, 1935. Pan-Pacific Ent. 11: 178. ♂.
Taxonomy: Michener, 1935. Canad. Ent. 67: 277, ♀.

melanocephalus (Cockerell). Calif.
Panurgus melanocephalus Cockerell, 1926. Pan-Pacific Ent. 3: 80. ♂ ♀.
Panurginus morrisoni Crawford, 1926. Ent. Soc. Wash. Proc. 28: 209. ♂.

nigrellus Crawford. Calif.
Panurginus nigrellus Crawford, 1926. Ent. Soc. Wash. Proc. 28: 210. ♂.
Taxonomy: Michener, 1935. Pan-Pacific Ent. 11: 180. ♀.

nigrihirtus Michener. Calif.
Panurginus nigrihirtus Michener, 1935. Pan-Pacific Ent. 11: 179. ♂ ♀.

occidentalis (Crawford). Calif.
Greeleyella occidentalis Crawford, 1916. Insecutor Inscitiae Menstruus 4: 105. ♂ ♀

polytrichus Cockerell. Miss., La., Tex.
Panurginus polytrichus Cockerell, 1909. Ann. Mag. Nat. Hist. (8) 4: 28. ♂.
Birkmania andrenoides Viereck, 1909. Ent. Soc. Wash. Proc. 11: 50. ♀.
Greeleyella resinata Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 361. ♀.

potentillae (Crawford). Md., Va., N. C. On flowers of *Potentilla*.
Greeleyella potentillae Crawford, 1916. Insecutor Inscitiae Menstruus 4: 104. ♂ ♀.

Genus PSEUDOPANURGUS Cockerell

Taxonomy: Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 195–198.—Cockerell, 1922. Amer. Mus. Novitates 36: 9.—Robertson, 1922. Psyche 29: 164 (Illinois species).

Subgenus PSEUDOPANURGUS Cockerell

Pseudopanurgus Cockerell, 1897. Canad. Ent. 29: 290.
Type: Panurgus aethiops Cresson. Orig. desig.
Protandrenopsis Crawford, 1903. Canad. Ent. 35: 337.
Type: (*Protandrenopsis fuscipennis* Crawford) = *Panurgus aethiops* Cresson. Monob. and orig. desig.

aethiops (Cresson). Nebr., Kans., Colo., N. Mex., Tex.
Panurgus aethiops Cresson, 1872. Amer. Ent. Soc. Trans. 4: 259. ♀ ♂.
Protandrenopsis fuscipennis Crawford, 1903. Canad. Ent. 35: 337. ♀. N. syn.
Biology: Hicks, 1931. Canad. Ent. 63: 172.

andrenoides (Smith). Ohio.
Scrapter Andrenoides Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 121. ♀.
Taxonomy: Cockerell, 1904. Canad. Ent. 36: 303, ♀.

fraterculus (Cockerell). Colo., N. Mex., west. Tex.
Calliopsis fraterculus Cockerell, 1896. Canad. Ent. 28: 159. ♂ ♀.

pectidellus Cockerell. N. Mex.
Pseudopanurgus pectidellus Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 14: 26. ♀.

rugosus (Robertson). Md., N. C., Ill., Kans., Miss., Tex. On flowers of Helianthae.
Calliopsis rugosus Robertson, 1895. Amer. Ent. Soc. Trans. 22: 121. ♀ ♂.

timberlakei Cockerell. Ariz.
Pseudopanurgus timberlakei Cockerell, 1931. Ent. Soc. Wash. Proc. 33: 201. ♀.

Subgenus ANTHEMURGUS Robertson

Anthemurgus Robertson, 1902. Canad. Ent. 34: 321.
Type: *Anthemurgus passiflorae* Robertson. Monob. and orig. desig.

passiflorae (Robertson). Ill., N. C. On flowers of *Passiflora*.
Anthemurgus passiflorae Robertson, 1902. Canad. Ent. 34: 321. ♀ ♂.

Subgenus HETEROSARUS Robertson

Heterosarus Robertson, 1918. Ent. News 29: 91.
Type: *Calliopsis parvus* Robertson. Monob. and orig. desig.

abdominalis abdominalis (Cresson). Tex., Kans.
Calliopsis abdominalis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 68. ♀ ♂.
Camptopoeum semirufum Cockerell, 1937. Amer. Mus. Novitates 899: 1. ♀.

abdominalis tricolor (Cockerell), n. comb. Pa., N. J., Md.
Calliopsis tricolor Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 151. ♀.

aestivalis (Provancher), n. comb. Que.
Panurgus aestivalis Provancher, 1882. Nat. Canad. 13: 205. ♀ ♂.

albitarsis (Cresson). N. C., Ill., Colo., N. Mex., Tex., ?Calif. On flowers of Heliantheae.
Panurgus albitarsis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 260. ♀ ♂.

altissimus (Cockerell), n. comb. Colo.
Panurginus altissimus Cockerell, 1922. Amer. Mus. Novitates 36: 3. ♂ ♀.

asteris (Robertson). N. B. and Maine to N. C., west to Wis., and Ill., ?N. Mex. On flowers of Astereae; Heliantheae.
Calliopsis asteris Robertson, 1895. Amer. Ent. Soc. Trans. 22: 121. ♀ ♂.

atricornis (Cresson), n. comb. Colo., N. Mex.
Calliopsis atricornis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 67. ♂.
Panurginus atricomis (!) Viereck, 1903. Amer. Ent. Soc. Trans. 29: 50.

aurifodinae Michener. South. Calif., mountains.
Pseudopanurgus aurifodinae Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 320. ♂.

bakeri (Cockerell), n. comb. Colo., N. Mex., Ariz.
Calliopsis bakeri Cockerell, 1896. Ent. News 7: 221. ♂.
Taxonomy: Viereck, 1903. Amer. Ent. Soc. Trans. 29: 50.—Cockerell, 1910. Psyche 17: 245, ♂ ♀.

barberi (Cockerell), n. comb. N. Mex.
Panurginus barberi Cockerell, 1899. Entomologist 32: 129. ♂.

borealis (Cockerell), n. comb. Alta.
Panurginus borealis Cockerell, 1937. Canad. Ent. 69: 33. ♀.

boylei (Cockerell), n. comb. Colo., N. Mex.
Calliopsis boylei Cockerell, 1896. Canad. Ent. 28: 161. ♂.
Taxonomy: Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 350.—Crawford, 1912. Canad. Ent. 44: 368.

californicus (Cresson). Calif.; Lower Calif.
Calliopsis californicus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 67. ♂.

citrinifrons (Viereck), n. comb. N. Mex.
Panurginus citrinifrons Viereck, 1903. Amer. Ent. Soc. Trans. 29: 51. ♂.

citripes (Ashmead), n. comb. Colo.
Calliopsis citripes Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 5. ♂.

didirupa (Cockerell), n. comb. Idaho, Colo., N. Mex.
Panurginus didirupa Cockerell, 1908. Entomologist 41: 293. ♂ ♀.

expallidus (Swenk and Cockerell), n. comb. Nebr.
Panurginus expallidus Swenk and Cockerell, 1907. Ent. News 18: 181. ♂.

flavotinctus (Cockerell), n. comb. Colo., N. Mex.
Panurginus pauper var. *flavotinctus* Cockerell, 1898. Denison. Univ. Sci. Labs. Bul. 11: 51. ♂.—Cockerell, 1898. N. Mex. Univ. Bul. 1: 51. ♂.
Taxonomy: Cockerell, 1899. Entomologist 32: 129, ♀.

gerardiae Crawford. N. C., Miss.
Pseudopanurgus gerardiae Crawford, 1932. Ent. Soc. Wash. Proc. 34: 77. ♂ ♀.

horizontalis (Swenk and Cockerell), n. comb. Nebr.
Panurginus horizontalis Swenk and Cockerell, 1907. Ent. News 18: 183. ♂.

illinoiensis (Cresson). Md., Va., N. C., Fla., Ill., Tex. On flowers of Astereae.
Calliopsis illinoiensis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 66. ♂.
Calliopsis compositarum Robertson, 1893. Amer. Ent. Soc. Trans. 20: 274. ♀.
Taxonomy: Robertson, 1895. Amer. Ent. Soc. Trans. 22: 121, ♂.

ineptus (Cockerell), n. comb. Colo.
Panurginus ineptus Cockerell, 1922. Amer. Mus. Novitates 36: 8. ♀.

innuptus (Cockerell), n. comb. Alta., N. Dak., S. Dak., Nebr., Colo., N. Mex., Ariz. Principally on flowers of *Helianthus*.
Calliopsis innuptus Cockerell, 1896. Ent. News 7: 222. "♀"=♂.
Panurginus albitarsis var. *fortior* Cockerell, 1899. Entomologist 32: 129. ♂.
Panurginus innuptus var. *absonus* Cockerell, 1912. Ent. News 23: 446. ♂.
Taxonomy: Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 194, ♂ ♀.

irregularis (Cockerell). Colo.
Panurginus irregularis Cockerell, 1922. Amer. Mus. Novitates 36: 2. ♂.

labrosiformis distractus (Cockerell), n. comb. Nebr.
Panurginus labrosiformis distractus Cockerell, 1912. Ent. News 23: 447. ♂.

labrosiformis labrosiformis (Robertson). Ill., N. C. On flowers of Heliantheae.
Panurginus labrosiformis Robertson, 1898. Acad. Sci. St. Louis, Trans. 8: 49. ♀ ♂.

labrosus (Robertson). Ill., N. C. On flowers of Heliantheae.
Calliopsis labrosus Robertson, 1895. Amer. Ent. Soc. Trans. 22: 122. ♀ ♂.
Taxonomy: Robertson, 1898. Acad. Sci. St. Louis, Trans. 8: 48, ♀ ♂.

leucopterus (Cockerell), n. comb. Colo.
Panurginus leucopterus Cockerell, 1923. Ent. News 34: 49. ♂.

lutzae (Cockerell), n. comb. Colo.
Panurginus lutzae Cockerell, 1922. Amer. Mus. Novitates 36: 7. ♀.

nebrascensis muesebecki Michener, n. name. Maine, Mass., N. C., Miss.
Pseudopanurgus nebrascensis timberlakei Michener, 1947. Amer. Midland Nat. 38: 446. ♂ ♀. Preocc. by Cockerell, 1931.

nebrascensis nebrascensis (Crawford). Alta., N. Dak., Nebr., Colo.
Panurginus nebrascensis Crawford, 1903. Canad. Ent. 35: 335. ♂ ♀.
Taxonomy: Crawford, 1912. Canad. Ent. 44: 368.

neomexicanus (Cockerell), n. comb. N. Mex.
Panurginus neomexicanus Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 2: 451. ♂.
Panurginus nigrinus Viereck, 1903. Amer. Ent. Soc. Trans. 29: 50. ♀.

nubis (Cockerell), n. comb. N. Mex.
Panurginus nubis Cockerell, 1913. Ann. Mag. Nat. Hist. (8) 11: 193. ♀.

opaculus (Cockerell), n. comb. Ariz.
Panurginus opaculus Cockerell, 1922. Amer. Mus. Novitates 36: 3. ♀.

ornatipes (Cresson), n. comb. Nebr., Colo., Tex.
Calliopsis ornatipes Cresson, 1872. Amer. Ent. Soc. Trans. 4: 260. ♂.
Taxonomy: Crawford, 1912. Canad. Ent. 44: 368.

pauper (Cresson), n. comb. N. Y., Conn., N. J., Va., N. C., Ill., ?Colo.
Calliopsis pauper Cresson, 1878. Amer. Ent. Soc. Trans. 7: 66. ♀ ♂.
Calliopsis parvus Robertson, 1892. Amer. Nat. 26: 273. ♀ ♂.
Taxonomy: Crawford, 1932. Ent. Soc. Wash. Proc. 34: 77.

pecki (Cockerell), n. comb. Alta.
Panurginus pecki Cockerell, 1937. Canad. Ent. 69: 114. ♂.

pectiphilus (Cockerell), n. comb. N. Mex.
Panurginus pectiphilus Cockerell, 1913. Ann. Mag. Nat. Hist. (8) 11: 193. ♀.

perlaevis (Cockerell), n. comb. Colo., N. Mex., Ariz.
Calliopsis perlaevis Cockerell, 1896. Canad. Ent. 28: 160. ♀.
Taxonomy: Cockerell, 1922. Amer. Mus. Novitates 36: 5.

pernitens (Cockerell), n. comb. Ariz.
Panurginus pernitens Cockerell, 1922. Amer. Mus. Novitates 36: 4. ♀.

picipes (Cresson), n. comb. Colo., N. Mex., Tex.
Panurgus picipes Cresson, 1872. Amer. Ent. Soc. Trans. 4: 261. ♂.
Taxonomy: Cockerell, 1900. Canad. Ent. 32: 364. ♂.

piercei albertensis (Cockerell), n. comb. Alta.
Panurginus piercei albertensis Cockerell, 1937. Canad. Ent. 69: 33. ♀.

piercei piercei (Crawford), n. comb. N. Dak., Nebr., Colo., N. Mex.
Panurginus piercei Crawford, 1903. Canad. Ent. 35: 335. ♂ ♀.
Biology: Pierce, 1904. Nebr. Univ., Studies 4: 185.—Hicks, 1936. Canad. Ent. 68: 47.

porterae (Cockerell), n. comb. N. Mex., Colo., Ariz.
Panurginus Porterae Cockerell, 1900. Canad. Ent. 32: 364. ♂ ♀.

pulchricornis (Cockerell), n. comb. Colo.
Panurginus pulchricornis Cockerell, 1922. Amer. Mus. Novitates 36: 8. ♀.

renimaculatus (Cockerell), n. comb. N. Dak., Wyo., Nebr., Colo., N. Mex., Tex.
Calliopsis renimaculatus Cockerell, 1896. Ent. News 7: 222. ♀.
Taxonomy: Swenk and Cockerell, 1907. Ent. News 18: 180, ♀ only.—Crawford, 1915. U. S. Natl. Mus. Proc. 94: 579, ♀ ♂.—Stevens, 1919. Canad. Ent. 51: 208, ♂.

rudbeckiae (Robertson). Wis., Ill. On flowers of Heliantheae.
Calliopsis rudbeckiae Robertson, 1895. Amer. Ent. Soc. Trans. 22: 122. ♀ ♂.

simulans (Swenk and Cockerell), n. comb. N. Dak., Nebr.
Panurginus simulans Swenk and Cockerell, 1907. Ent. News 18: 182. ♂ ♀.

solidaginis (Robertson). Ill., Miss. On flowers of Astereae; Heliantheae.
Calliopsis solidaginis Robertson, 1893. Amer. Ent. Soc. Trans. 20: 274. ♀.
Taxonomy: Robertson, 1898. Acad. Sci. St. Louis, Trans. 8: 50, ♂.

stevensi Crawford. N. Dak.
Pseudopanurgus stevensi Crawford, 1932. Ent. Soc. Wash. Proc. 34: 78. ♂ ♀.

stigmalis (Swenk and Cockerell), n. comb. Nebr.
Panurginus stigmalis Swenk and Cockerell, 1907. Ent. News 18: 180. ♂ ♀.

townsendi (Cockerell), n. comb. N. Mex.
Calliopsis townsendi Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 152. ♂.

virginicus (Cockerell). Va., N. C.
Panurginus virginicus Cockerell, 1907. Entomologist 40: 137. ♂.

ximenesiae (Cockerell), n. comb. N. Mex.
Panurginus ximenesiae Cockerell, 1913. Ann. Mag. Nat. Hist. (8) 11: 195. ♀.

Genus NOMADOPSIS Ashmead

Nomadopsis Ashmead, 1898. Psyche 8: 285.
Type: *Perdita zonalis* Cresson, lapsus for *Calliopsis zonalis* Cresson. Monob. and orig. desig.
Spinoliella Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 84.
Type: *Camptopoeum nomioides* Spinola, lapsus for *C. nomadoides* Spinola. Monob. and orig. desig.
Spinoliella subg. *Claremontiella* Cockerell, 1933. Pan-Pacific Ent. 9: 25.
Type: (*Spinoliella euxantha*) Cockerell = *Calliopsis zonalis* Cresson. Monob. and orig. desig.
Taxonomy: Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 195–198.

anthidius (Fowler). Oreg., Calif. Principally on flowers of *Trifolium*.
Calliopsis anthidius Fowler, 1899. Psyche 8: 407. ♂ (♀ misdet.).

australior (Cockerell), n. comb. Nebr., Colo., N. Mex.
Calliopsis australior Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 349. ♀ ?♂.
Biology: Custer, 1927. Psyche 34: 199.—Custer, 1929. Canad. Ent. 61: 49.

cincta (Cresson), n. comb. Nev., Calif.
Calliopsis cinctus Cresson, 1879. Amer. Ent. Soc. Trans. 7: 201. ♀ ♂.

comptula (Cockerell), n. comb. Calif.
Spinoliella comptula Cockerell, 1916. Ann. Mag. Nat. Hist. (8) 17: 284. ♀.

edwardsii bernardina (Michener), n. comb. Calif. (San Bernardino Mts.).
Spinoliella edwardsii bernardina Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 326. ♀ ♂.

edwardsii edwardsii (Cresson), n. comb. Calif. (North. Sierra Nevada Mts.).
Calliopsis Edwardsii Cresson, 1878. Amer. Ent. Soc. Trans. 7: 64. ♀ ♂.
Calliopsis lateralis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 65. ♀.

edwardsii media (Michener), n. comb. Calif. (South. Sierra Nevada Mts.).
Spinoliella edwardsii media Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 325. ♀ ♂.

euphorbiae (Cockerell), n. comb. South. Calif. On flowers of *Euphorbia*.
Spinoliella euphorbiae Cockerell, 1925. Pan-Pacific Ent. 1: 179. ♀.

helianthi (Swenk and Cockerell), n. comb. Nebr.
Spinoliella helianthi Swenk and Cockerell, 1907. Ent. News 18: 178. ♀.

hesperia equina (Cockerell), n. comb. Cent. Calif.
Spinoliella equina Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 196. ♀ ♂.

hesperia hesperia (Swenk and Cockerell), n. comb. South. Calif. On flowers of *Heliotropium*.
Spinoliella hesperia Swenk and Cockerell, 1907. Ent. News 18: 186. ♀ ♂.

interrupta (Provancher), n. comb. Ont.
Calliopsis interrupta Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 320. ♀.

lawae (Michener), n. comb. Calif.
Spinoliella lawae Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 324. ♀.

meliloti (Cockerell), n. comb. N. Mex.
Calliopsis meliloti Cockerell, 1896. Canad. Ent. 28: 158. ♀.
Taxonomy: Cockerell, 1933. Pan-Pacific Ent. 9: 158. ♂ ♀.

obscurella (Cresson), n. comb. Wash., Calif. On flowers of *Eschscholtzia*.
Calliopsis obscurellus Cresson, 1879. Amer. Ent. Soc. Trans. 7: 201. ♀ ♂.

personata (Cockerell), n. comb. Wash., Oreg.
Calliopsis personatus Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 349. ♀.

puellae (Cockerell), n. comb. South. Calif. Principally on flowers of *Malacothrix*.
Spinoliella puellae Cockerell, 1933. Pan-Pacific Ent. 9: 25. ♀ ♂.

4-lineata (Provancher), n. comb. Ont.
Calliopsis 4-lineata Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 319. ♀.
Calliopsis quadrilineata Dalla Torre, 1896. Cat. Hym., v. 10, p. 174. Emend.

scitula (Cresson), n. comb. Wyo., Colo., N. Mex.
Calliopsis scitulus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 64. ♀.
Calliopsis pictipes Cresson, 1878. Amer. Ent. Soc. Trans. 7: 65. ♂. N. syn. (Timberlake).
Taxonomy: Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 348.
Biology: Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 440.

scutellaris scutellaris (Fowler), n. comb. Utah, Calif.
Calliopsis scutellaris Fowler, 1899. Psyche 8: 406. ♂.
Calliopsis visaliensis Fowler, 1899. Psyche 8: 406. ♀.

triangulifera (Cockerell), n. comb. Calif.
Spinoliella triangulifera Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 195. ♀.
Taxonomy: Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 325, ♂.

zebrata (Cresson), n. comb. Colo.
Calliopsis zebratus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 64. ♀.
Biology: Cockerell, 1915. Ent. News 26: 366.—Hicks, 1936. Canad. Ent. 68: 47.

zonalis (Cresson). Calif.
Calliopsis zonalis Cresson, 1879. Amer. Ent. Soc. Trans. 7: 201. ♂.
Spinoliella euxantha Cockerell, 1916. Ann. Mag. Nat. Hist. (8) 17: 283. ♀. N. syn. (Timberlake).

Genus CALLIOPSIS Smith

Revision: Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 195–198.

Subgenus CALLIOPSIS Smith

Calliopsis Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 128.
Type: ***Calliopsis andreniformis*** Smith. Desig. by Ashmead, 1899.

andreniformis Smith. N. B. to Fla., west to Miss., N. D., Colo.
Calliopsis andreniformis Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 128. ♀.
Calliopsis flavipes Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 128. ♂.
Panurgus vernalis Provancher, 1882. Nat. Canad. 13: 204. ♀ ♂.
Biology: Graenicher, 1905. Wis. Nat. Hist. Soc. Bul. 3: 159.—Ainslee, 1937. Canad. Ent. 69: 97.

bernardinensis Michener. South. Calif.
Calliopsis bernardinensis Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 323. ♂ ♀.

chlorops Cockerell. N. Mex., Colo.
Calliopsis chlorops Cockerell, 1899. *In* Cockerell and Porter, Ann. Mag. Nat. Hist. (7) 4: 413. ♂.

coloradensis Cresson. Ill., Alta., N. D., Wyo., Nebr., Utah, Colo., Kans., N. Mex., Tex. On flowers of Heliantheae; Astereae.
Calliopsis coloradensis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 63. ♀ ♂.
Calliopsis coloratipes fedorensis Cockerell, 1909. Ann. Mag. Nat. Hist. (8) 4: 28. ♀. N. syn. (Timberlake).
Taxonomy: Cockerell, 1908. Canad. Ent. 40: 147, ♂.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 223.

coloratipes Cockerell. N. Mex., Ariz.
Calliopsis flavifrons race ***coloratipes*** Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 52. ♂.
Taxonomy: Cockerell, 1898. Univ. N. Mex. Bul. 1: 52, ♂.—Cockerell, 1899. Entomologist 33: 64, ♀.

flavifrons Smith. Va., Fla.
Calliopsis flavifrons Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 129. ♂.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 321, ♀.

lepida Cresson. Ga.
Calliopsis lepidus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 68. ♀.

maculata Smith. Fla.
Calliopsis maculatus Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 129. ♀.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 321, ♀.

pugionis Cockerell. South. Calif.
Calliopsis pugionis Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 197. ♀.

rhodophila Cockerell. Colo., N. Mex., Tex.
Calliopsis andreniformis subsp. ***rhodophilus*** Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 350. ♂ ♀.

squamifera Timberlake. Ariz.
Calliopsis squamifera Timberlake, 1947. Pan-Pacific Ent. 23: 28. ♂.

teucrii Cockerell. N. Mex.
Calliopsis teucrii Cockerell, 1899. *In* Cockerell and Porter, Ann. Mag. Nat. Hist. (7) 4: 412. ♀.

Subgenus VERBENAPIS Cockerell and Atkins

Calliopsis subg. ***Verbenapis*** Cockerell and Atkins, 1902. Ann. Mag. Nat. Hist. (7) 10: 44.
Type: ***Calliopsis verbenae*** Cockerell and Porter. Monob.

hirsutifrons Cockerell. N. Mex. On flowers of *Verbena*.
Calliopsis hirsutifrons Cockerell, 1896. Canad. Ent. 28: 158. ♂.
Calliopsis verbenae Cockerell and Porter, 1899. Ann. Mag. Nat. Hist. (7) 4: 412. ♀ ♂. N. syn.

nebraskensis Crawford. N. D., Wis., Colo., Nebr., Mo. On flowers of *Verbena*.
Calliopsis verbenae var. ***Nebraskensis*** Crawford, 1902. Canad. Ent. 34: 240. ♀ ♂.
Biology: Robertson, 1914. Ent. News 25: 72 (as *verbenae*).—Rau and Rau, 1916. Jour. Anim. Behavior 6: 368.—Robertson, 1922. Psyche 29: 171 (as *verbenae*).—Rau, 1922. Acad. Sci. St. Louis, Trans. 24 (7): 33.

Subgenus PERISSANDER Michener

Calliopsis subg. ***Perissander*** Michener, 1942. N. Y. Ent. Soc. Jour. 50: 275.
Type: ***Calliopsis (Perissander) anomoptera*** Michener. Monob. and orig. desig.

anomoptera Michener. Ariz.
Calliopsis (Perissander) anomoptera Michener, 1942. N. Y. Ent. Soc. Jour. 50: 275. ♂ ♀.

Nomen Nudum in Calliopsis Smith

Calliopsis bridwelli Bridwell, 1899. Kans. Acad. Sci. Trans. 16: 210.

Genus HYPOMACROTERA Cockerell and Porter

Hypomacrotera Cockerell and Porter, 1899. Ann. Mag. Nat. Hist. (7) 4: 418.
Type: ***Hypomacrotera callops*** Cockerell and Porter. Orig. desig.

callops callops Cockerell and Porter. Colo., N. Mex.
Hypomacrotera callops Cockerell and Porter, 1899. Ann. Mag. Nat. Hist, 4: 419. ♂ ♀.
Taxonomy: Cockerell, 1937. Amer. Mus. Novitates 948: 3.

callops persimilis Cockerell. Ariz., south. Calif., deserts. On flowers of *Physalis*.
Hypomacrotera callops subsp. ***persimilis*** Cockerell, 1899. Entomologist. 33: 64. ♀ ♂.

subalpinus andradensis Cockerell. South. Calif.; Lower Calif., deserts. On flowers of *Sphaeralcea*.
Hypomacrotera andradensis Cockerell, 1937. Amer. Mus. Novitates 948: 3. ♀ ♂.

subalpinus subalpinus (Cockerell). N. Mex., Ariz., north. Mexico, arid areas On flowers of *Sphaeralcea*.
Calliopsis subalpinus Cockerell, 1894. Ent. News 5: 235. ♂.
Calliopsis semirufus Cockerell, 1896. Ent. Monthly Mag. 32: 219. ♀.

Family HALICTIDAE[70]

Genus HALICTUS Latreille

Revision: Sandhouse, 1941. Ent. Amer. (n. s.) 21: 23–37.

Subgenus HALICTUS Latreille

Halictus Latreille, 1804. Nouv. Dict. Hist. Nat., v. 24, p. 182.
Type: ***Apis quadricincta*** Fabricius. Desig. by Richards, 1935.
Odontalictus Robertson, 1918. Ent. News 29: 91.
Type: ***Halictus ligatus*** Say. Monob. and orig. desig.

farinosus Smith. Mont., Nebr., and N. Mex., west to B. C. and Calif.
Halictus farinosus Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 69. ♀.
Halictus montanus Crawford, 1902. Canad. Ent. 34: 234. ♀ ♂.
Paranomia venablesii Ashmead, 1903. Canad. Ent. 35: 243. ♀.
Halictus denticulus Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 469. ♀ ♂.
Halictus procerus Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 469. ♂.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 350, ♀.

ligatus Say. North America south of about 50° latitude, southward to the West Indies and Colombia.
Halictus ligatus Say, 1837. Boston Jour. Nat. Hist. 1: 396. ♀ ♂.
Halictus pocyi Lepeletier, 1841. Hist. Nat. Ins., Hym., v. 2, p. 271. ♂.
Halictus capitosus Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 67. ♀.
Halictus armaticeps Cresson, 1872. Amer. Ent. Soc. Trans. 4: 250. ♀.
Halictus texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 251. ♀ ♂.
Halictus ornatipes Cresson, 1872. Amer. Ent. Soc. Trans. 4: 252. ♂.
Halictus townsendi Cockerell, 1896. Ann. Mag. Nat. Hist. (6) 18: 293. ♀.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 217.

[70]By Charles D. Michener, University of Kansas.

parallelus Say. N. J. to Ga., west to Mont., N. Mex., and Tex.
Halictus parallelus Say, 1837. Boston Jour. Nat. Hist. 1: 397. ♀.
Halictus occidentalis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 250. ♀ ♂.
Biology: Packard, 1868. Amer. Nat. 1: 364.—Hungerford and Williams, 1912. Ent. News 23: 241.

rubicundus (Christ). Holarctic, in North America ranging from B. C., N. W. T., and N. S., south to Calif., Ariz., Tex., and Fla.
Apis rubicunda Christ, 1791. Naturges. Klassific Nomencl. Ins. Bienen, Wespen, Ameisengeschlect...Hym., p. 190. ♀.
Halictus lerouxi Lepeletier, 1841. Hist. Nat. Ins., Hym., v. 2, p. 272. ♀.
Halictus lerouxi var. *ruborum* Cockerell, 1898. Canad. Ent. 30: 52. ♀.
Halictus (*Halictus*) *lerouxii* Lovell, 1908. Psyche 15: 34. Emend.
Halictus lupinelli Cockerell, 1936. Pan-Pacific Ent. 12: 158. ♀.
Taxonomy: Cockerell, 1937. Canad. Ent. 69: 88.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 217.—Hicks, 1934. Colo. Univ., Studies 21: 265.

Subgenus SELADONIA Robertson

Seladonia Robertson, 1918. Ent. News 29: 91.
Type: *Apis seladonius* Fabricius. Orig. desig.

confusus arapahonum Cockerell, n. comb. N. Dak. to N. Mex., west to B. C., Oreg., Utah.
Halictus arapahonum Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 316. ♀.
Halictus provancheri nearcticus Cockerell, 1911. Ann. Mag. Nat. Hist. (8) 8: 661.
Halictus (*Chloralictus*) *olivarius* Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (2532): 10. ♀. N. syn.

confusus confusus Smith. N. S. to Ga., west to N. Dak. and Tex.
Halictus confusus Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 70. ♀ ♂.
Halictus constrictus Provancher, 1882. Nat. Canad. 13: 202. ♀. Preocc. N. syn.
Halictus provancheri Dalla Torre, 1896. Cat. Hym., v. 10, p. 77. N. name. N. syn.
Halictus nearcticus Vachal, 1904. Soc. Sci. Hist. Arch. Corréze Bul. 26: 470. ♀ ♂. N. syn.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 350, ♀.—Cockerell, 1911. Ann. Mag. Nat. Hist. (8) 8: 660.
Biology: Hicks, 1936. Canad. Ent. 68: 47.

harmonius Sandhouse. South. Calif.
Halictus (*Halictus*) *harmonius* Sandhouse, 1941. Ent. Amer. (n. s.) 21: 36. ♀.

tripartitus Cockerell. Idaho, Colo., and Tex. to Wash., Calif.; Lower Calif.
Halictus tripartitus Cockerell, 1895. Ann. Mag. Nat. Hist. (6) 16: 63. ♀.
Halictus meliloti Cockerell, 1895. Ann. Mag. Nat. Hist. (6) 16: 67. ♀.
Halictus catalinensis Cockerell, 1903. South. Calif. Acad. Sci. Bul. 2: 84. ♀.

virgatellus Cockerell. N.W.T., B. C., Alta., Oreg., Colo., N. Mex.
Halictus virgatellus Cockerell, 1901. Psyche 9: 284. ♀.
Halictus sansoni Crawford, 1911. U. S. Natl. Mus. Proc. 41: 267. ♀.
Halictus fraserae Cockerell, 1916. Entomologist 49: 100. ♀.
Halictus typographicus Cockerell, 1918. Entomologist 51: 261. ♂.
Halictus (*Seladonia*) *ororyctes* Cockerell, 1933. Ent. Soc. Amer. Ann. 26: 40. ♀.
Taxonomy: Cockerell, 1919. Ent. News 30: 288, ♂.

Nomina Nuda in Halictus Latreille

Halictus californica Bridwell, 1899. Kans. Acad. Sci. Trans. 16: 210.

Halictus emarginata Smith, 1910. N. J. State Mus. Ann. Rpt. 1909, p. 688.

Halictus fendleri Clements and Long, 1923. Carnegie Inst. Wash. Pub. 336: 252.

Halictus medionitens Clements and Long, 1923. Carnegie Inst. Wash. Pub. 336: 252.

Halictus missouriensis Bridwell, 1899. Kans. Acad. Sci. Trans. 16: 210.

Halictus pulzenus Clements and Long, 1923. Carnegie Inst. Wash. Pub. 336 252.

Halictus rhoptoides Bray, 1917. Pomona Jour. Ent. Zool. 9: 99.

Genus LASIOGLOSSUM Curtis

Revisions: Robertson, 1902. Canad. Ent. 34: 247–250 (Illinois species).—Cockerell, 1905. Amer. Nat. 39: 89–90 (Vachal's species).—Crawford, 1907. N. Y. Ent. Soc. Jour. 15: 183–188.—Atwood, 1934. Canad. Jour. Res. 10: 204 (Nova Scotia species).

Subgenus LASIOGLOSSUM Curtis

Lasioglossum Curtis, 1833. Brit. Ent., v. 10, p. 448.
Type: (*Lasioglossum tricingulum* Curtis)=*Melitta xanthopus* Kirby. Monob. and orig. desig.
Curtisapis Robertson, 1918. Ent. News 29: 91.
Type: *Halictus coriaceus* Smith. Orig. desig.
Revision: Sandhouse, 1933. Ent. Soc. Wash. Proc. 35: 80–83 (eastern species).

athabascense (Sandhouse), n. comb. N. B., N. S., N. H., Pa., Mich., Ont., Alta., B. C.
Halictus athabascensis Sandhouse, 1933. Ent. Soc. Wash. Proc. 35: 78. ♂ ♀.

bardum (Cresson), n. comb. Tex., N. Mex.
Halictus bardus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 251. ♀.
Taxonomy: Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 163.

capitulatum (Vachal), n. comb. Tenn.?
Halictus capitulatus Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 472. ♀.

citerius (Vachal), n. comb. No locality recorded.
Halictus citerior Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 473. ♀.

coriaceum (Smith). N. S. to N. C., west to Alta. and N. Mex., ranging southward in Mississippi Valley to south. Ill.
Halictus coriaceus Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 70. ♀.
Halictus subquadratus Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 72. ♂.
Halictus 6-cinctus Provancher, 1882. Nat. Canad. 13: 200. ♂.
Halictus sexcinctus Dalla Torre, 1896. Cat. Hym., v. 10, p. 59. Emend.

cyaneiceps (Cockerell), n. comb. N. Mex., Ariz. (Timberlake).
Halictus cyaneiceps Cockerell, 1916. Canad. Ent. 48: 254. ♀ ♂.

discus (Smith), n. comb. North America.
Halictus discus Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 70. ♀.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 351. ♀.

forbesii (Robertson). N. B. to N. C., west to N. Dak., Wash., and Tex.
Halictus Forbesii Robertson, 1890. Amer. Ent. Soc. Trans. 17: 315. ♀ ♂.
Halictus forbesi Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 163. Emend.
Taxonomy: Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 294.

fuscipenne (Smith). N. S. to N. C., Fla., Tex.
Halictus fuscipennis Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 67. ♀ ♂.

heterorhinum (Cockerell), n. comb. Colo.
Halictus heterorhinus Cockerell, 1930. Amer. Mus. Novitates 397: 6. ♀.

leucozonium (Schrank), n. comb. Holarctic, N. S., Maine, "Hudson's Bay," ?Ill., ?Tex., ?Wash.
Apis leucozonia Schrank, 1781. Enum. Ins. Austr., p. 406.
Halictus similis Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 69. ♀.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 352.
Biology: Atwood, 1933. Canad. Jour. Res. 9: 449.

manitouellum (Cockerell), n. comb. Colo.
Halictus manitouellus Cockerell, 1908. Ent. Soc. Wash. Proc. 9: 119. ♀.

mellipes (Crawford), n. comb. Calif.; Lower Calif.
Halictus mellipes Crawford, 1907. Invertebrata Pacifica 19: 190. ♀.

olympiae (Cockerell), n. comb. B. C., Wash., Oreg., Calif., ?Colo.
Halictus olympiae Cockerell, 1898. Canad. Ent. 30: 51. ♀.
Halictus olympiae var. *subangustus* Cockerell, 1898. Canad. Ent. 30: 51. ♀.
Halictus olympiae var. *subangustatus* Crawford, 1906. Canad. Ent. 38: 301. Error for *subangustus*.
Taxonomy: Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 476, ♂?

pacificum (Cockerell), n. comb. B. C., Wash., Calif.
Halictus pacificus Cockerell, 1898. Acad. Nat. Sci. Phila. Proc. 50: 50. ♀ ♂.

pavonotum (Cockerell), n. comb. Calif.
Halictus pavonotus Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 188. ♀ ♂.

riparíellum (Cockerell), n. comb. Colo.
Halictus riparíellus Cockerell, 1918. Entomologist 51: 261. ♀.

sisymbrii (Cockerell), n. comb. Wyo. to N. Mex., west to B. C. and Calif.; Lower Calif.
Halictus sisymbrii Cockerell, 1895. Ann. Mag. Nat. Hist .(6) 16: 63.
Taxonomy: Cockerell, 1897. Amer. Ent. Soc. Trans. 25: 165, ♀ ♂.

titusi (Crawford), n. comb. Oreg., Calif.
Halictus Titusi Crawford, 1902. Canad. Ent. 34: 235. ♀.

trizonatum (Cresson), n. comb. Alta. to N. Mex., west to B. C. and Calif.
Halictus trizonatus Cresson, 1874. Amer. Ent. Soc. Trans. 5: 101. ♀.
Halictus egregius Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 476. ♀.
Halictus colatus Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 476. ♂.

zonulum (Smith), n. comb. N. B., N. S., Maine, N. Y., Mich., Wis.; Eurasia.
Halictus zonulus Smith, 1848. Zoologist 6: 2171. ♀ ♂.
Halictus craterus Lovell, 1908. Psyche 15: 35. ♀ ♂.
Biology: Brittain, 1933. Canad. Dept. Agr. Bul. (n. s.) 162: 94.

Subgenus EVYLAEUS Robertson

Evylaeus Robertson, 1902. Canad. Ent. 34: 244.
Type: *Halictus arcuatus* Robertson. Orig. desig.

adelipus (Vachal), n. comb. Tenn.?
Halictus adelipus Vachal, 1904. Soc. Sci. Hist. Arch. Corréze Bul. 26: 479. ♂.

allonotum (Cockerell), n. comb. Calif.
Halictus allonotus Cockerell, 1936. Pan-Pacific Ent. 12: 156. ♀.

amicum (Cockerell), n. comb. N. Mex.
Halictus amicus Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 164. ♀.

angustius (Cockerell), n. comb. N. Mex., Ariz.
Halictus angustior Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 165, 167. ♀ ♂.

arcuatum arcuatum (Robertson), n. comb. East. North America from N. S. to Ga., west to Wis. and Ill.; also Colo.
Halictus arcuatus Robertson, 1893. Amer. Ent. Soc. Trans. 20: 145. ♀.
Halictus crassus Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 477. ♀.
Halictus gulosus punctiferus Cockerell, 1916. Ann. Mag. Nat. Hist. (8) 17: 286. ♀. N. syn. (Timberlake).
Taxonomy: Robertson, 1900. Acad. Sci. St. Louis, Trans. 10: 51, ♂.
Biology: Brittain, 1933. Canad. Dept. Agr. Bul. (n. s.) 162: 94.—Atwood, 1933. Canad. Jour. Res. 9: 448.

arcuatum parisum (Lovell), n. comb. N. B., Maine.
Halictus arcuatus var. *parisus* Lovell, 1908. Psyche 15: 36. [♀.]

argemonis (Cockerell), n. comb. Calif.; Mexico.
Halictus arcuatus var. *argemonis* Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 174. ♀.
Halictus latifrons Crawford, 1907. Invertebrata Pacifica 1: 192. ♀. N. syn.

arizonense (Crawford), n. comb. Ariz.
Halictus arizonensis Crawford, 1907. N. Y. Ent. Soc. Jour. 15: 189. ♀.

aspilurum (Cockerell), n. comb. Calif.
Halictus aspilurus Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 190. ♀.

birkmanni (Crawford), n. comb. Tex.
Halictus Birkmanni Crawford, 1906. Canad. Ent. 38: 5. ♀.

cooleyi (Crawford), n. comb. Alta., Mont., Colo., N. Mex., B. C., Oreg., Calif.
Halictus Cooleyi Crawford, 1906. *In* Viereck, Canad. Ent. 38: 301. ♀ ♂.

cordleyi (Crawford), n. comb. B. C., Oreg.
Halictus Cordleyi Crawford, 1906. *In* Viereck, Canad. Ent. 38: 302. ♀ ♂.

dasiphorae (Cockerell), n. comb. N. Mex.
Halictus dasiphorae Cockerell, 1901. Psyche 9: 285. ♀.

diatretum (Vachal), n. comb. B. C., Wash., Nev., Colo., ?Oreg.
Halictus diatretus Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 481. ♀ ♂.

divergens (Lovell), n. comb. Maine, N. Y., N. C.
Halictus divergens Lovell, 1905. Canad. Ent. 37: 299. ♀.

fartum (Vachal), n. comb. Wash.
Halictus fartus Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 483. ♀.

fedorense (Crawford), n. comb. Tex.
Halictus Fedorensis Crawford, 1906. Canad. Ent. 38: 4. ♀.

foxii (Robertson), n. comb. Que. to N. C., west to Man. and Ill., ?Nev., ?Calif.
Halictus gracilis Robertson, 1890. Amer. Ent. Soc. Trans. 17: 316. ♀ ♂. Preocc.
Halictus foxii Robertson, 1895. Amer. Ent. Soc. Trans. 22: 117. N. name.
Halictus gracillimus Dalla Torre, 1896. Cat. Hym., v. 10, p. 63. N. name.

giffardi (Michener), n. comb. Calif.
Halictus giffardi Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 315. ♀.

glabriventre (Crawford), n. comb. Oreg., Calif.
Halictus Vachali Crawford, 1906. *In* Viereck, Canad. Ent. 38: 300. ♀. Preocc.
Halictus glabriventris Crawford, 1907. Canad. Ent. 39: 21. N. name.
Biology: Hicks, 1936. Canad. Ent. 68: 47.

granosum (Vachal), n. comb. Colo.
Halictus granosus Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 477. ♀ ♂.

gulare (Vachal), n. comb. Calif.
Halictus gularis Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 481. ♂.

gulosum (Cockerell), n. comb.
Halictus arcuatus gulosus Cockerell, 1911. Ann. Mag. Nat. Hist. (8) 8: 661. ♀.

hammondi (Cockerell), n. comb. Calif. (San Miguel Island).
Halictus hammondi Cockerell, 1938. Ann. Mag. Nat. Hist. (11) 2: 149. ♀.

humboldtense (Michener), n. comb. Calif.
Halictus (Evylaeus) humboldtensis Michener, 1936. Pan-Pacific Ent. 12: 166. ♀.

inconditum (Cockerell), n. comb. Wash., Colo.
Halictus inconditus Cockerell, 1916. Entomologist 49: 101. ♀.

kincaidii (Cockerell), n. comb. Wash., Oreg., Calif.
Halictus kincaidii Cockerell, 1898. Canad. Ent. 30: 51. ♀.
Taxonomy: Cockerell, 1903. Entomologist 36: 208.—Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 318, ♂ ♀.

macoupinense (Robertson). Que. to N. C., west to Wis. and Ill.
Halictus 4-maculatus Robertson, 1890. Amer. Ent. Soc. Trans. 17: 316. ♀ ♂. Preocc.
Halictus quadrimaculatus Cockerell, 1895. Ann. Mag. Nat. Hist. (6) 16: 65. Emend.
Halictus macoupinensis Robertson, 1895. Amer. Ent. Soc. Trans. 22: 117. N. name.

mendocinense (Michener), n. comb. Calif.
Halictus (Evylaeus) mendocinensis Michener, 1936. Pan-Pacific Ent. 12: 167. ♀.

miguelense (Cockerell), n. comb. Calif. (San Miguel Island).
Halictus miguelensis Cockerell, 1937. Pan-Pacific Ent. 13: 156. ♂.
Halictus cooleyi obscurior Cockerell, 1939. Calif. Acad. Sci. Proc. (4) 23: 435. ♀ ♂. Preocc.

nelumbonis (Robertson), n. comb. Maine, N. J., D. C., Fla., Wis., Ill.
Halictus nelumbonis Robertson, 1890. Amer. Ent. Soc. Trans. 17: 316. ♀ ♂.

nigrescens avalonense (Cockerell), n. comb. Calif. (coastal islands).
Halictus avalonensis Cockerell, 1938 Ann. Mag. Nat. Hist. (11) 2: 150. ♀.
Taxonomy: Cockerell, 1939. Calif. Acad. Sci. Proc. (4) 23: 435, ♂.

nigrescens nigrescens (Crawford), n. comb. Calif.; Lower Calif.
Halictus nigrescens Crawford, 1907. Invertebrata Pacifica 1: 191. ♀.
Taxonomy: Cockerell, 1936. Pan-Pacific Ent. 12: 159, ♀.

nigricolle (Vachal), n. comb. Colo.
Halictus nigricollis Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 480. ♂.

nigridens (Vachal), n. comb. Calif.
Halictus nigridens Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 480. ♂.

nigrum (Viereck), n. comb. Labrador, N. S., N. Y., Alta., B. C., south in mountains to N. Mex.; Eurasia.
Halictus niger Viereck, 1903. Amer. Ent. Soc. Trans. 29: 56. ♀ ♂.
Halictus fratellus Perez, 1903. Soc. Linn. de Bordeaux, Actes 58: ccxiv. ♀.
Halictus frey-gessneri Alfken, 1905. Nat. Ver. Bremen Abh. 18: 73. ♀ ♂.
Taxonomy: Eidman, 1935. Arb. uber Morph. u. Taxonom. Ent. 2: 104.

occultum (Vachal), n. comb. Wash.
Halictus occultus Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 478. ♀.

orthocarpi (Cockerell), n. comb. Calif.
Halictus orthocarpi Cockerell, 1936. Pan-Pacific Ent. 12: 159. ♀.
Taxonomy: Michener, 1936. Pan-Pacific Ent. 12: 171, ♂.

ovaliceps (Cockerell), n. comb. Colo., N. Mex., B. C., Calif.
Halictus ovaliceps Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 45, ♀; Cockerell, 1898. N. Mex. Univ. Bul. 1: 45. ♀.
Taxonomy: Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 317, ♂.
Biology: Hicks, 1936. Canad. Ent. 68: 47.

pecosense (Crawford), n. comb. N. Mex.
Halictus Pecosensis Crawford, 1906. Canad. Ent. 38: 6. ♀.

pectinatum (Robertson), n. comb. Conn., N. J., Md., Ill., Mo.
Halictus pectinatus Robertson, 1890. Amer. Ent. Soc. Trans. 17: 315. ♀.

pectorale (Smith). N. S. to Fla., west to Wis., Nebr., Tex.
Halictus pectoralis Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 68. ♀.
Taxonomy: Cockerell, 1895. Ann. Mag. Nat. Hist. (6) 16: 64.—Robertson, 1898. Acad. Sci. St. Louis, Trans. 8: 44. ♂.—Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 350, ♀.

pectoraloides (Cockerell), n. comb. Man., B. C., Colo., N. Mex., Ariz.; north. Mexico.
Halictus pectoraloides Cockerell, 1895. Ann. Mag. Nat. Hist. (6) 16: 64. ♀.
Halictus pectoraloides var. *beatulus* Cockerell, 1918. Entomologist 51: 262. ♀.
Halictus (Evylaeus) grindeliae Cockerell, 1934. Ent. News 45: 29. ♀. N. syn. (Timberlake).
Taxonomy: Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 166, ♀ ♂.

peralpinum (Cockerell), n. comb. Colo.
Halictus peralpinus Cockerell, 1919. Ent. News 30: 289. ♀.

peraltum (Cockerell), n. comb. Wyo., Colo., N. Mex.
Halictus peraltus Cockerell, 1901. Psyche 9: 164. ♂.

pullilabre (Vachal), n. comb. Calif.
Halictus pullilabris Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 479. ♂.

pulveris (Cockerell), n. comb. Colo.
Halictus pulveris Cockerell, 1930. Amer. Mus. Novitates 397: 7. ♀ ♂.

quebecense (Crawford), n. comb. N. S., Que., Mass., N. Y., N. C., Ga.
Halictus quebecensis Crawford, 1907. N. Y. Ent. Soc. Jour. 15: 189. ♀.

ralenci (Crawford), n. comb. N. C.
Halictus ralenci Crawford, 1932. Ent. Soc. Wash. Proc. 34: 69. ♀.

regis (Cockerell), n. comb. Colo.
Halictus regis Cockerell, 1916. Entomologist 49: 102. ♀.

robertsoni (Crawford), n. comb. Tex.
Halictus Robertsoni Crawford, 1906. Canad. Ent. 38: 4. ♀.

robustum (Crawford), n. comb. Calif.
Halictus robustus Crawford, 1907. Invertebrata Pacifica 1: 191. ♀.

ruficorne (Crawford), n. comb. Nev., Calif.
Halictus ruficornis Crawford, 1907. Invertebrata Pacifica 1: 192. ♂.

rufitarse (Zetterstedt), n. comb. N. B., N. S.; Eurasia.
Halictus rufitarsis Zetterstedt, 1838. Ins. Lappon., v. 1, p. 462. ♀ ♂.
Hylaeus minutissimus Eversmann, 1852. Soc. Nat. Moscou Bul. 25: 42. ♂.
Halictus atricornis Smith, 1870. Ent. Ann., p. 26. ♀ ♂.
Taxonomy: Eidmann, 1935. Arb. über Morph. u. Taxonom. Ent. 2: 104.

sanfrancisconis (Strand), n. comb. Ariz.
Halictus sanfrancisconis Strand, 1917. Arch. f. Naturgesch. 83 (Abt. A, Heft 11): 57. ♂.

sequoiae (Michener), n. comb. Calif.
Halictus (Evylaeus) sequoiae Michener, 1936. Pan-Pacific Ent. 12: 165. ♀.

sopinci (Crawford), n. comb. N. C.
Halictus sopinci Crawford, 1932. Ent. Soc. Wash. Proc. 34: 69. ♀.

subobscurum (Cockerell), n. comb. N. Mex.
Halictus subobscurus Cockerell, 1895. Ann. Mag. Nat. Hist. (6) 16: 65. ♀.
Halictus Cockerelli Crawford, 1902. Canad. Ent. 34: 236. ♀.

supranitens (Cockerell), n. comb. Colo.
Halictus supranitens Cockerell, 1919. Ent. News 30: 289. ♀.

swenki (Crawford), n. comb. N. Dak., Nebr.
Halictus swenki Crawford, 1906. Ent. News 17: 275. ♀.

synthyridis (Cockerell), n. comb. Alta., Colo.
Halictus synthyridis Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 427. ♀ ♂.

tracyi (Cockerell), n. comb. Calif.
Halictus tracyi Cockerell, 1936. Pan-Pacific Ent. 12: 161. ♀.
Taxonomy: Michener, 1936. Pan-Pacific Ent. 12: 170, ♀ ♂.

truncatum (Robertson), n. comb. Maine to N. C., west to Wis., Nebr., and Wash.
Halictus truncatus Robertson, 1901. Canad. Ent. 33: 230. ♀ ♂.
Halictus fulgidus Crawford, 1902. Canad. Ent. 34: 235. ♀.

vaporellum (Cockerell), n. comb. Colo.
Halictus vaporellus Cockerell, 1910. Canad. Ent. 42: 366. ♀.

Subgenus HEMIHALICTUS Cockerell

Hemihalictus Cockerell, 1897. Canad. Ent. 29: 288.
Type: *Panurgus lustrans* Cockerell. Monob.

lustrans (Cockerell). Mich., N. C., Fla., Tenn., Ark., Miss., La., N. Mex., Tex.
On flowers of *Pyrrhopappus*.
Panurgus lustrans Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 147. ♀.
Taxonomy: Michener, 1947. N. Y. Ent. Soc. Jour. 55: 49, ♂.

Subgenus SPHECODOGASTRA Ashmead

Sphecodogastra Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 92.
Type: ***Parasphecodes texana*** Cresson. Monob. and orig. desig.
Biology: Stevens, 1920. Ent. News 31: 39–44.

aberrans (Crawford). N. Dak., Nebr., Colo., N. Mex., Alta., Oreg. On flowers of Onograceae.
Halictus aberrans Crawford, 1903. Canad. Ent. 35: 336. ♀.
Halictus galpinsiae Cockerell, 1903. Canad. Ent. 35: 342. ♀.
Halictus gelidus Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 481. ♂.

lusorium (Cresson), n. comb. Tex., N. Mex.
Halictus lusorius Cresson, 1872. Amer. Ent. Soc. Trans. 4: 252. ♀.
Taxonomy: Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 166.

oenotherae (Stevens). Conn., N. C., Ga., N. Dak., Kans. On flowers of *Oenothera*.
Halictus (Evylaeus) oenotherae Stevens, 1920. Ent. News 31: 37. ♀.

texanum (Cresson). Wis., Ill., N. Dak., Nebr., Kans., Colo., Okla., N. Mex., Tex.; north. Mexico. On flowers of Onograceae.
Parasphecodes texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 249. ♀ ♂.
Biology: Stevens, 1920. Ent. News 31: 39.—Hicks, 1936. Canad. Ent. 68: 47.

Subgenus CHLORALICTUS Robertson

Chloralictus Robertson, 1902. Canad. Ent. 34: 248.
Type: ***Halictus cressoni*** Robertson. Orig. desig.
Halictomorpha Schrottky, 1911. Rev. Mus. Paulista 8: 81.
Type: ***Halictomorpha phaedra*** Schrottky. Monob. and orig. desig.
Revision: Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 1–10.

abanci (Crawford), n. comb. N. C.
Halictus abanci Crawford, 1932. Ent. Soc. Wash. Proc. 34: 71. ♀.

abietum (Michener), n. comb. Colo.
Halictus (Chloralictus) abietum Michener, 1938. Ann. Mag. Nat. Hist. (10): 18: 281. ♀ ♂.

absimile (Sandhouse), n. comb. Colo.
Halictus absimilis Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 21. ♀.

abundum (Sandhouse), n. comb. N. Mex.
Halictus abundus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65: (19): 32. ♂.

academicum (Sandhouse), n. comb. Iowa, Colo.
Halictus academicus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 12. ♀.
Halictus vintonensis Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 22. ♀. N. syn.

accentum (Sandhouse), n. comb. Colo.
Halictus accentus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 38. ♂.

actinosum (Sandhouse), n. comb. Calif.
Halictus actinosus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 13. ♀.

actuarium (Sandhouse), n. comb. Colo.
Halictus actuarius Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 25. ♂.

admirandum (Sandhouse), n. comb. Mass.
Halictus admirandus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 14. ♀.

albipenne (Robertson), n. comb. N. B., N. S., Maine, Mass., Conn., N. Y., N. J., Wis., Ill., Kans., Colo., Alta., Oreg.
Halictus albipennis Robertson, 1890. Amer. Ent. Soc. Trans. 17: 317. ♀ ♂.
Halictus nubilis Lovell, 1905. Canad. Ent. 37: 40. ♀.

albitarse (Cresson), n. comb. Tex., ?Ont.
Halictus albitarsis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 254. ♂.

albohirtum (Crawford), n. comb. Nev.
Halictus albohirtus Crawford, 1907. Invertebrata Pacifica 1: 193. ♀.

albuquerquense (Michener), n. comb. N. Mex.
Halictus (Chloralictus) albuquerquensis Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 316. ♀.

aliud (Sandhouse), n. comb. N. Mex.
Halictus alius Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 16. ♀.

apertum (Sandhouse). Va.
Halictus apertus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 35. ♂.

apopkense (Robertson). N. C., Fla., Miss.
Halictus apopkensis Robertson, 1892. Amer. Nat. 26: 272. ♀.

aquilae (Cockerell), n. comb. N. Mex.; north. Mexico.
Halictus aquilae Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 2: 450. ♀.
Taxonomy: Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 415, ♂.

arcanum (Sandhouse), n. comb. N. Mex.
Halictus arcanus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 19. ♀.

ashmeadii (Robertson), n. comb. N. C., Fla., ?N. Mex.
Halictus ashmeadii Robertson, 1892. Amer. Nat. 26: 271. ♀.
Halictus ashmeadi Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 294. Emend.

astutum (Sandhouse), n. comb. N. Mex.
Halictus astutus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 31. ♂.

atriventre (Crawford), n. comb. Alta., B. C.
Halictus atriventris Crawford, 1906. *In* Viereck, Canad. Ent. 38: 303. ♀ ♂.

basilicum (Sandhouse), n. comb. Conn.
Halictus basilicus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 36. ♂

bernardinense (Michener), n. comb. Calif.
Halictus (Chloralictus) bernardinensis Michener, 1936. Ann. Mag. Nat. Hist. (10) 18: 286. ♀.

bruneri (Crawford), n. comb. N. Y., Pa., N. C., Ga., Ky., Iowa, Nebr., Kans.
Halictus Bruneri Crawford, 1902. Canad. Ent. 34: 237. ♀.
Halictus brimleyi Crawford, 1932. Ent. Soc. Wash. Proc. 34: 71. ♀. N. syn.

brunneiventre (Crawford), n. comb. Nev., Calif.
Halictus brunneiventris Crawford, 1907. Invertebrata Pacifica 1: 194. ♀.

brevibase (Cockerell), n. comb. Sask.
Halictus (Chloralictus) brevibasis Cockerell, 1938. Amer. Mus. Novitates 983: 3. ♂.

brycinci (Crawford), n. comb. N. Y., N. C.
Halictus brycinci Crawford, 1932. Ent. Soc. Wash. Proc. 34: 70. ♀.

cabrilli (Cockerell), n. comb. Calif. (San Miguel Island).
Halictus (Chloralictus) cabrilli Cockerell, 1937. Pan-Pacific Ent. 13: 155. ♂.

caducum (Sandhouse), n. comb. N. Mex.
Halictus caducus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 17. ♀.

calforniae (Sandhouse), n. comb. Calif.
Halictus perpunctatus var. *californiae* Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 6 ♀.
Taxonomy: Timberlake, 1940. South. Calif. Acad. Sci. Bul. 39: 190. ♀ ♂.

callidum (Sandhouse), n. comb. Va.
Halictus callidus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 34. ♂.

cattellae (Ellis), n. comb. Mass., N. Y., Ohio.
Halictus cattellae Ellis, 1913. Ent. News 24: 209. ♀ ♂.

clarissimum (Ellis), n. comb. N. Mex.
Halictus clarissimus Ellis, 1914. N. Y. Ent. Soc. Jour. 22: 222. ♀.

clematisellum (Cockerell), n. comb. N. Mex., Calif.
Halictus clematisellus Cockerell, 1904. Canad. Ent. 36: 13. ♀.
Taxonomy: Cockerell, 1904. Entomologist 39: 6. ♂ ♀.

coactum (Cresson), n. comb. Tex.
Halictus coactus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 254. ♀ (part).

coeruleum (Robertson), n. comb. Conn., N. Y., N. J., Va., N. C., Wis., Ill.
Halictus coeruleus Robertson, 1893. Amer. Ent. Soc. Trans. 20: 146. ♀ ♂.

comulum Michener, n. name. N. Mex.
Halictus comis Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 18. ♀.
Preocc. by Vachal, 1911.

connexum (Cresson), n. comb. Wis., Tex.
Halictus connexus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 253. ♀.

consonum (Sandhouse), n. comb. N. S., Conn.
Halictus consonus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 30. ♂.

coreopsis (Robertson), n. comb. Va., N. C., Ill.
Chloralictus cereopsis (!) Robertson, 1902. Canad. Ent. 34: 249. ♀.
Chloralictus coreopsis Robertson, 1902. Canad. Ent. 34: 250 .♂.

crassiceps (Ellis), n. comb. N. Mex.
Halictus crassiceps Ellis, 1914. Ent. News 25: 103. ♀.

creberrimum (Smith), n. comb. Fla.
Halictus creberrimus Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 72. ♀.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 349, ♀.

cressonii (Robertson), n. comb. N. S. to N. C., west to Alta., Wash., and Colo.
Halictus Cressonii Robertson, 1890. Amer. Ent. Soc. Trans. 17: 317. ♀ ♂.
Halictus (Chloralictus) cressoni Viereck, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 707. Emend.

cyaneonotum (Crawford), n. comb. Nev.
Halictus cyaneonotus Crawford, 1907. Invertebrata Pacifica 1: 193. ♀.

cyanurum (Cockerell), n. comb. Calif.
Halictus cyanurus Cockerell, 1936. Pan-Pacific Ent. 12: 157. ♀.

daggetti (Cockerell), n. comb. Lower Calif., near the border.
Halictus daggetti Cockerell, 1916. Canad. Ent. 48: 57. ♂.

disparile (Cresson), n. comb. Kans., Tex., ?N. J., ?Alta., ?Nev.
Halictus disparilis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 253. ♀.

diversopunctatum (Ellis), n. comb. Idaho, Wash., Calif.
Halictus diversopunctatus Ellis, 1914. Ent. News 25: 154. ♀.

ellisiae (Sandhouse), n. comb. Mass.
Halictus ellisiae Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 11. ♀.

eophilium (Ellis), n. comb. N. Mex.
Halictus eophilius Ellis, 1914. Ent. News 25: 153. ♀.

euryceps (Ellis), n. comb. Colo., N. Mex., Calif.
Halictus euryceps Ellis, 1914. Ent. News 25: 98. ♀.

evestigatum (Sandhouse), n. comb. Colo.
Halictus evestigatus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 27. ♂.

floridanum caesareum (Cockerell), n. comb. N. J.
Halictus floridanus caesareus Cockerell, 1916. Brooklyn Ent. Soc. Bul. 11: 11. ♀.

floridanum floridanum (Robertson), n. comb. N. C., Fla.
Halictus floridanus Robertson, 1892. Amer. Nat. 26: 269. ♀.

foveolatum (Robertson), n. comb. Ill.
Chloralictus foveolatus Robertson, 1902. Canad. Ent. 34: 250. ♂.

genuinum (Sandhouse), n. comb. Va.
Halictus genuinus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 36. ♂.

graenicheri (Ellis), n. comb. Wis., Ill.
Halictus graenicheri Ellis, 1914. N. Y. Ent. Soc. Jour. 22: 221. ♀.

grinnelli (Cockerell), n. comb. Calif.; Lower Calif.
Halictus grinnelli Cockerell, 1916. Canad. Ent. 48: 56. ♀.

halophitum (Graenicher), n. comb. Fla.
Halictus halophitus Graenicher, 1927. Psyche 34: 206. ♀ ♂.
Halictus halophilus Graenicher, 1930. Ent. Soc. Amer. Ann. 23: 156. Emend.

hartii (Robertson), n. comb. Wis., Ill.
Halictus hartii Robertson, 1892. Amer. Nat. 26: 268. ♀.

hemimelas (Cockerell), n. comb. Colo., N. Mex.
Halictus hemimelas Cockerell, 1901. Psyche, 9: 285. ♀.

hudsoniellum (Cockerell), n. comb. Colo.
Halictus hudsoniellus Cockerell, 1919. Ent. News 30: 290. ♀.

hunteri (Crawford), n. comb. Tex.
Halictus hunteri Crawford, 1932. Ent. Soc. Wash. Proc. 34: 72. ♀.

hyalinum (Crawford), n. comb. Nev.
Halictus hyalinus Crawford, 1907. Invertebrata Pacifica 1: 194. ♀.

illinoense (Robertson), n. comb. N. J., N. C., Ill., Mo.
Halictus illinoensis Robertson, 1892. Amer. Nat. 26: 271. ♀.
Halictus illinoisensis Smith, 1910. N. J. State Mus. Ann. Rpt. 1909, p. 688. Emend.

imitatum (Smith), n. comb. "North America," N. J.
Halictus imitatus Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 71. ♂.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 350.

impavidum (Sandhouse), n. comb. Calif.
Halictus impavidus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65(19): 18. ♀.

impurum (Cresson), n. comb. Tex.
Halictus impurus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 252. ♀.

incompletum (Crawford), n. comb. N. Mex., Nev., Calif.
Halictus incompletus Crawford, 1907. Invertebrata Pacifica 1: 195. ♀.
Taxonomy: Michener, 1936. Ann. Mag. Nat. Hist. (10) 19: 284, ♂.

inconspicuum (Smith), n. comb. "North America"; N. Y., N. J., Md., ?Kans.
Halictus inconspicuus Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 73. ♀.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 349.

insolitum (Sandhouse), n. comb. Iowa.
Halictus insolitus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 41. ♂.

insulsum (Sandhouse), n. comb. N. Mex.
Halictus insulsus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 29. ♂.

jameseae (Cockerell), n. comb. Colo.
Halictus (Chloralictus) jameseae Cockerell, 1933. Ent. Soc. Amer. Ann. 26: 41. ♂.

kunzei (Cockerell), n. comb. Ariz.
Halictus Kunzei Cockerell, 1898. Canad. Ent. 30: 238. ♀.

lactineum (Sandhouse), n. comb. Colo.
Halictus lactineum Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 34. ♂.

laevissimum (Smith), n. comb. N. Y., N. J., Man., Alta.
Halictus laevissimus Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 72. ♀.
Halictus levissimus Dalla Torre, 1895. Cat. Hym., v. 10, p. 86. Emend.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 351.

latum (Sandhouse), n. comb. Colo.
Halictus latus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 20. ♀.

lazule (Ellis), n. comb. Colo.
Halictus lazulis Ellis, 1913. Ent. News 24: 207. ♀.

lepidii (Graenicher), n. comb. Fla.
Halictus lepidii Graenicher, 1927. Psyche 34: 204. ♀ ♂.

lineatulum (Crawford), n. comb. N. Y., Mich., Wis., Iowa, Tex.
Halictus lineatulus Crawford, 1906. Canad. Ent. 38: 5. ♀.
Halictus subconnexus Ellis, 1915. Ent. News 26: 291. ♀. N. syn. (Timberlake).
Halictus unicus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 21. ♀. N. syn.

longicorne (Crawford), n. comb. Calif.
Halictus longicornis Crawford, 1907. Invertebrata Pacifica 1: 195. ♂.

mactum (Sandhouse), n. comb. Colo.
Halictus mactus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 37. ♂.

malinum (Sandhouse), n. comb. Va.
Halictus malinus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 40. ♂.

marinense (Michener), n. comb. Calif.
Halictus (Chloralictus) marinensis Michener, 1936. Pan-Pacific Ent. 12: 167. ♀.

marinum (Crawford), n. comb. N. J., Va., N. C., Fla.
Halictus marinus Crawford, 1904. Ent. News 15: 99. ♀.
Taxonomy: Graenicher, 1927. Psyche 34: 204, ♂.—Graenicher, 1930. Ent. Soc. Amer. Ann. 23: 156.

megastictum (Cockerell), n. comb. Calif. (San Miguel Island).
Halictus (Chloralictus) megastictus Cockerell, 1937. Pan-Pacific Ent. 13: 152. ♀ ♂.

meritum (Sandhouse), n. comb. Colo.
Halictus meritus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 19. ♀.

merosum (Sandhouse), n. comb. N. Mex.
Halictus merosus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 40. ♂.

mesillense (Cockerell), n. comb. N. Mex.
Halictus nymphalis race *mesillensis* Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 47, ♀.—Cockerell, 1898. N. Mex. Univ. Bul. 1: 47, ♀.

microlepoides (Ellis), n. comb. N. Mex., Ariz., Calif.; north. Mexico.
Halictus microlepoides Ellis, 1914. Ent. News 25: 152. ♀.

molle (Sandhouse), n. comb. Colo.
Halictus mollis Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 39. ♂.

nevadense (Crawford), n. comb. Nev., Calif.; Lower Calif.
Halictus nevadensis Crawford, 1907. Invertebrata Pacifica 1: 195. ♀.
Halictus (Chloralictus) pasadenae Michener, 1936. Ann. Mag. Nat. Hist. (10) 18: 285. ♀ ♂. N. syn. (Timberlake).

nigro-viride (Graenicher), n. comb. Mass., Alta., Wis., B. C.
Halictus nigro-viridis Graenicher, 1910. Pub. Mus. City Milwaukee Bul. 1: 233. ♀.

nymphaearum (Robertson), n. comb. N. S. to N. C., west to Mich. and Kans. On flowers of Nymphaeaceae.
Halictus palustris Robertson, 1890. Amer. Ent. Soc. Trans. 17: 317. ♀ ♂. Preocc.
Halictus nymphaearum Robertson, 1895. Amer. Ent. Soc. Trans. 22: 117. N. name.
Halictus paludicola Dalla Torre, 1896. Cat. Hym., v. 10, p. 75. N. name.
Halictus oceanicus Cockerell, 1916. Brooklyn Ent. Soc. Bul. 11: 11. ♀. N. syn.

nymphale (Smith), n. comb. N. C., Fla., ?N. J., ?Wis.
Halictus nymphalis Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 68. ♀.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 352.

oblongum (Lovell), n. comb. N. B., N. S., Maine, Conn., Wis., Colo., N. Mex.
Halictus oblongus Lovell, 1905. Canad. Ent. 37: 40. ♀.
Halictus planatus Lovell, 1905. Canad. Ent. 37: 300. ♀.
Taxonomy: Lovell, 1908. Psyche 15: 39, ♂.

obnubilum (Sandhouse), n. comb. Colo.
Halictus (Chloralictus) obnubilus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 28. ♂.

obscurum (Robertson), n. comb. Conn., N. Y., N. J., N. C., Ill.
Halictus obscurus Robertson, 1892. Amer. Nat. 26: 270. ♀.

oleosum (Cockerell), n. comb. Colo., N. Mex.
Halictus oleosus Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 47, ♀.—Cockerell, 1898. N. Mex. Univ. Bul. 1: 47, ♀.

pacatum (Sandhouse), n. comb. Colo.
Halictus pacatus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 16. ♀.

pallidellum (Ellis), n. comb. N. Mex.
Halictus pallidellus Ellis, 1914. Ent. News 25: 151. ♀.

paululum (Sandhouse), n. comb. Colo.
Halictus paululus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19) 23. ♂.

pavoninum (Ellis), n. comb. Colo.
Halictus pavoninus Ellis, 1913. Ent. News 24: 206. ♀.

pensitum (Sandhouse), n. comb. Colo.
Halictus pensitus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 38. ♂.

perdifficile (Cockerell), n. comb. Colo., N. Mex.; north. Mexico.
Halictus perdifficilis Cockerell, 1895. Ann. Mag. Nat. Hist. (6) 16: 68. ♀.
Halictus perfficilis (!) Cockerell, 1897. N. Mex. Agr. Expt. Sta. Bul. 24: 19.
Taxonomy: Cockerell, 1901. Ann. Mag. Nat. Hist. (7) 7: 126.

perexiguum (Sandhouse), n. comb. N. Mex.
Halictus perexiguus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 26. ♂.

perichlarum (Cockerell), n. comb. Calif. (San Miguel Isl.).
Halictus (Chloralictus) perichlarus Cockerell, 1937. Pan-Pacific Ent. 13: 153. ♀ ♂.
Halictus perichlorus Cockerell, 1939. Calif. Acad. Sci. Proc. (4) 23: 428. Emend.

perparvum (Ellis), n. comb. Ariz.
Halictus perparvus Ellis, 1914. Ent. News 25: 102. ♀.

perpunctatum (Ellis), n. comb. Colo., N. Mex.
Halictus perpunctatus Ellis, 1913. Ent. News 24: 210. ♀.

petrellum (Cockerell), n. comb. Calif.; Lower Calif.
Halictus petrellus Cockerell, 1903. South. Calif. Acad. Sci. Bul. 2: 84. ♀.
Halictus coronadensis Cockerell, 1916. Canad. Ent. 48: 56. ♂. N. syn. (Timberlake).

phaceliarum (Cockerell), n. comb. Colo.
Halictus phaceliarum Cockerell, 1919. N. Y. Ent. Soc. Jour. 27: 299. ♀.

pictum (Crawford), n. comb. Nebr.
Halictus pictus Crawford, 1902. Canad. Ent. 34: 236. ♀.

pikei (Sandhouse), n. comb. Colo.
Halictus pikei Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 28. ♂.

pilosellum (Cockerell), n. comb. Calif.
Halictus pilosellus Cockerell, 1936. Pan-Pacific Ent. 12: 160. ♀.

pilosicaudum (Cockerell), n. comb. Calif. (San Miguel Isl.).
Halictus (Chloralictus) pilosicaudus Cockerell, 1937. Pan-Pacific Ent. 13: 155. ♀.

pilosum (Smith). N. S. to N. C., west to Wis., Kans., Colo.
Halictus pilosus Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 71. ♀.
Halictus pilosus var. *leucocomus* Lovell, 1908. Psyche 15: 37. ♀.
Taxonomy: Robertson, 1895. Amer. Ent. Soc. Trans. 22: 117, ♂.—Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 351.

politissimum (Cockerell), n. comb. Nebr., Tex.
Halictus (Chloralictus) politissimus Cockerell, 1917. *In* W. P. Cockerell, N. Y. Ent. Soc. Jour. 25: 189. ♀.

praepes (Sandhouse), n. comb. Colo.
Halictus praepes Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 30. ♂.

pruinosiforme (Crawford), n. comb. Alta., S. D., Iowa, Nebr., N. Mex., Tex., Ariz., Nev., Calif.
Halictus pruinosiformis Crawford, 1906. Canad. Ent. 38: 284. ♀ ♂.
Halictus glaucovirens Cockerell, 1919. Ent. News 30: 290. ♀. N. syn. (Timberlake).
Halictus exalbidus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 24. ♂. N. syn.

pruinosum (Robertson), n. comb. S. D., Iowa, Wis., Ill., Nebr., Colo., N. Mex., Alta., Ariz.
Halictus pruinosus Robertson, 1892. Amer. Nat. 26: 269. ♀ ♂.
Biology: Melander and Brues, 1903. Biol. Bul. 5: 1.

pseudotegulare (Cockerell), n. comb. N. Mex.; Mexico.
Halictus pseudotegularis Cockerell, 1896. Ann. Mag. Nat. Hist. (6) 18: 294. ♀.

pudicum (Sandhouse), n. comb. Colo.
Halictus pudicus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 33. ♂.

punctatoventre (Crawford), n. comb. Calif.; Lower Calif.
Halictus punctatoventris Crawford, 1907. Invertebrata Pacifica 1: 196. ♀ ♂.

punctiferellum (Cockerell), n. comb. Calif. (San Miguel Island).
Halictus (Chloralictus) punctiferellus Cockerell, 1937. Pan-Pacific Ent. 13: 154. ♀.

raleighense (Crawford), n. comb. N. C.
Halictus raleighensis Crawford, 1932. Ent. Soc. Wash. Proc. 34: 73. ♀.

reticulatum (Robertson), n. comb. Fla.
Halictus reticulatus Robertson, 1892. Amer. Nat. 26: 268. ♀.

rhododactylum (Dalla Torre), n. comb. Fla., ?Kans.
Halictus fulvipes Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 67. ♀. Preocc.
Halictus rhododactylus Dalla Torre, 1896. Cat. Hym., v. 10, p. 80. ♀. N. name.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 351.

rhodognathum (Cockerell), n. comb. Tex.
Halictus (Chloralictus) rhodognathus Cockerell, 1917. *In* W. P. Cockerell, N. Y. Ent. Soc. Jour. 25: 190. ♀.

richardsoni (Cockerell), n. comb. Alta.
Halictus (Chloralictus) richardsoni Cockerell, 1937. Canad. Ent. 69: 113. ♀.

robertsonellum Michener, n. name. N. C., Fla., La.
Halictus longiceps Robertson, 1892. Amer. Nat. 26: 272. ♀. Preocc. by Saunders, 1879.
Taxonomy: Graenicher, 1927. Psyche 34: 206, ♂.

rohweri (Ellis), n. comb. Va.
Halictus subconnexus rohweri Ellis, 1915. Ent. News 26: 292.

rufulipes (Cockerell), n. comb. Sask.
Halictus (Chloralictus) rufulipes Cockerell, 1938. Amer. Mus. Novitates 983: 3. ♀.

rugosum (Crawford), n. comb. N. C., La., Nebr.
Halictus rugosus Crawford, 1902. Canad. Ent. 34: 237. ♀ ♂.

ruidosense (Cockerell), n. comb. Colo., N. Mex., Ariz.
Halictus ruidosensis Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 20: 142. ♀ ♂.

sagax (Sandhouse), n. comb. Colo.
Halictus sagax Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 25. ♂.

sandhouseae Michener, n. name. Colo.
Halictus occultus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 27. ♂. Preocc. by Vachal, 1904.

scrophulariae (Cockerell), n. comb. Colo.
Halictus (Chloralictus) scrophulariae Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 428. ♀.

semibrunneum (Cockerell), n. comb. N. Mex.
Halictus semibrunneus Cockerell, 1895. Ann. Mag. Nat. Hist. (6) 16: 67. ♀.

semicaeruleum (Cockerell), n. comb. N. Mex.
Halictus semicaeruleus Cockerell, 1895. Ann. Mag. Nat. Hist. (6) 16: 66. ♀.

smilacinae (Robertson), n. comb. N. S., N. J., Ill.
Halictus smilacinae Robertson, 1899. Acad. Sci. St. Louis, Trans. 7: 322. ♀.
Biology: Brittain, 1933. Canada Dept. Agr. Bul. (n. s.) 162: 94.

stultum (Cresson), n. comb. Que. to Ga., west to Wis., N. Mex., and Tex.; Riverside, Calif. (probably introduced).
Halictus stultus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 254. ♀.
Chloralictus sparsus Robertson, 1902. Canad. Ent. 34: 249. ♀ ♂. N. syn.
Halictus hortensis Lovell, 1905. Canad. Ent. 37: 39. ♀. N. syn.

subviridatum (Cockerell), n. comb. Sask.
Halictus (Chloralictus) subviridatus Cockerell, 1938. Amer. Mus. Novitates 983: 2. ♀ ♂.

succinipenne (Ellis), n. comb. Colo.
Halictus succinipennis Ellis, 1913. Ent. News 24: 205. ♀.

tegulare (Robertson). Conn. to N. C., west to Wis. and Tex.; recorded probably erroneously from Mont., Colo., Calif., and Mexico.
Halictus tegularis Robertson, 1890. Amer. Ent. Soc. Trans. 17: 318. ♀ ♂.

tegulariforme (Crawford), n. comb. Idaho, Nev., N. Mex., Calif.; Lower Calif.
Halictus tegulariformis Crawford, 1907. Invertebrata Pacifica 1: 194. ♀ ♂.
Halictus helianthi Cockerell, 1916. Canad. Ent. 48: 77. ♀. N. syn. (Timberlake).
Halictus gaudialis Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 23. ♂. N. syn.
Taxonomy: Michener, 1936. Ann. Mag. Nat. Hist. (10) 18: 283, ♂.

tenax (Sandhouse), n. comb. Colo.
Halictus tenax Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 15. ♀.

tenue (Ellis), n. comb. Colo.
Halictus tenuis Ellis, 1913. Ent. News 24: 208. ♀.

testaceum (Robertson), n. comb. N. C., Wis., Ill., N. Dak.
Halictus testaceum Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 323. ♀.

tranquillum (Sandhouse), n. comb. N. Mex.
Halictus tranquillus Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 32. ♂.

veganum (Cockerell), n. comb. Colo., N. Mex.
Halictus veganus Cockerell, 1901. Psyche 9: 286. ♀.
Halictus sedi Sandhouse, 1924. U. S. Natl. Mus. Proc. 65 (19): 12. ♀. N. syn.

versans (Lovell), n. comb. N. B., N. S., Maine, Wis.
Halictus versans Lovell, 1905. Canad. Ent. 37: 39. ♀ (♂ misdet.).
Taxonomy: Lovell, 1908. Psyche 15: 38, ♂.

versatum (Robertson). Maine to N. C., west to Wis. and Kans.
Chloralictus versatus Robertson, 1902. Canad. Ent. 34: 249. ♀ ♂.

vierecki (Crawford). Ont. to N. C.; also Wis., Ill., and Tex.
Halictus vierecki Crawford, 1904. Ent. News 15: 97. ♀.
Taxonomy: Graenicher, 1910. Canad. Ent. 42: 158, ♂.

viridatulum (Cockerell), n. comb. Colo.
Halictus viridatulus Cockerell, 1919. Ent. News 30: 290. ♀.

viridatum (Lovell), n. comb. N. B., N. S., Ont., Maine, Wis.
Halictus viridatus Lovell, 1905. Canad. Ent. 37: 300. ♀.
Biology: Atwood, 1933. Canad. Jour. Res. 9: 453.

zephyrus (Smith), n. comb. Maine to N. C.; Fla., west to Wis. and Kans.; also Colo., Utah, Oreg.
Halictus zephyrus Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 68. ♂.
Taxonomy: Robertson, 1895. Amer. Ent. Soc. Trans. 22: 117, ♀.—Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 352, ♂.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24 (7); 1.—Rau, 1926. Acad. Sci. St. Louis, Trans. 25: 157.

zophops (Ellis), n. comb. Colo.
Halictus zophops Ellis, 1914. Ent. News 25: 97. ♀.

Nomen Nudum in Lasioglossum subg. Chloralictus Robertson

Chloralictus virginicus Smith, 1910. N. J. State Mus. Ann. Rpt. 1909, p. 688.

Subgenus DIALICTUS Robertson

Dialictus Robertson, 1902. Canad. Ent. 34: 48.
Type: ***Halictus anomalus*** Robertson. Monob. and orig. desig.
Halictus subg. ***Gastrohalictus*** Ducke, 1902. Ztschr. System. Hym. Dipt. 2: 102.
Type: ***Halictus osmioides*** Ducke. Monob.
Revision: Sandhouse, 1923. Canad. Ent. 55: 193.

anomalum (Robertson), n. comb. Md., N. C., Wis., Ill., Alta., Colo.
Halictus anomalus Robertson, 1892. Amer. Nat. 26: 272. ♀.

lionotum (Sandhouse), n. comb. Colo.
Dialictus lionotus Sandhouse, 1923. Canad. Ent. 55: 194. ♂.

occidentale (Crawford), n. comb. Colo., N. Mex.
Dialictus occidentalis Crawford, 1902. Canad. Ent. 34: 318. ♀.
Halictus galei Cockerell, 1919. Canad. Ent. 51: 272. ♀.

stictaspis (Sandhouse), n. comb. N. Mex.
Dialictus stictaspis Sandhouse, 1923. Canad. Ent. 55: 195. ♂.

theodori (Crawford), n. comb. N. Mex.
Dialictus Theodori Crawford, 1902. Canad. Ent. 34: 318. ♀.

Subgenus PARALICTUS Robertson

Paralictus Robertson, 1901. Canad. Ent. 33: 299.
Type: (***Halictus cephalicus*** Robertson) = ***Halictus cephalotes*** Dalla Torre. Orig. desig.

cephalotes (Dalla Torre), n. comb. Conn., N. Y., Pa., Ill., Iowa, Mo.
Halictus cephalicus Robertson, 1892. Amer. Nat. 26: 270. ♀ ♂. Preocc.
Halictus cephalotes Dalla Torre, 1896. Cat. Hym., v. 10, p. 57. N. name.

platyparium (Robertson), n. comb. Md., N. C., Ill.
Halictus platyparius Robertson, 1895. Amer. Ent. Soc. Trans. 22: 117. ♀.

simplex (Robertson), n. comb. N. C., Ill.
Paralictus simplex Robertson, 1901. Canad. Ent. 33: 230. ♀.

Species of Lasioglossum, Subgenus Doubtful

The following species cannot be placed as to subgenus from existing descriptions.

arctoum (Vachal), n. comb. B. C.
Halictus arctous Vachal, 1904. Soc. Sci. Hist. Arch. Corrèze Bul. 26: 480. ♂.

californicum (Provancher), n. comb. Calif.
Parasphecodes Californica Provancher, 1896. Nat. Canad. 23: 8. ♀.

cinctipes (Provancher), n. comb. Ont.
Halictus cinctipes Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 316. ♂.

crassicorne (Kirby), n. comb. Canada.
Halictus crassicornis Kirby, 1837. *In* Richardson, Fauna Bor.-Amer., v. 4, p. 267. ♀.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 349, ♀.

distinguendum (Dalla Torre), n. comb. ?Que.
Halictus distinctus Provancher, 1882. Nat. Canad. 13: 200. ♂. Preocc.
Halictus distinguendus Dalla Torre, 1896. Cat. Hym., v. 10, p. 60. N. name.

Genus XERALICTUS Cockerell

Xeralictus Cockerell, 1927. Pan-Pacific Ent. 4: 41.
Type: ***Xeralictus timberlakei*** Cockerell. Monob.

timberlakei Cockerell. Calif. deserts. On flowers of *Mentzelia involuerata*.
Xeralictus timberlakei Cockerell, 1927. Pan-Pacific Ent. 4: 42. ♂.

Genus SPHECODES Latreille

Sphecodes Latreille, 1804. Nouv. Dict. Hist. Nat., v. 24, p. 182.
Type: *Sphex gibba* Linnaeus. Monob.
Dichroa Illiger, [1806]. Mag. Insektenk. 5: 39.
Type: *Sphex gibba* Linnaeus. Desig. by Sandhouse, 1943.
Sabulicola Verhoeff, 1890. Ent. Nachr. 16: 328.
Type: *Sabulicola cirsii* Verhoeff. Monob.
Drepanium Robertson, 1903. Ent. News. 14: 103.
Type: *Sphecodes falcifer* Patton. Monob.
Proteraner Robertson, 1903. Ent. News 14: 103.
Type: *Sphecodes ranunculi* Robertson. Monob.
Sphecodium Robertson, 1903. Ent. News 14: 104.
Type: (*Sphecodium cressonii* Robertson)=*Sphecodes mandibularis* Cresson. Orig. desig.
Machaeris Robertson, 1903. Ent. News 14: 104.
Type: *Sphecodes stygius* Robertson. Orig. desig.
Dialonia Robertson, 1903. Ent. News 14: 104.
Type: *Sphecodes antennariae* Robertson. Monob. and orig. desig.
Revisions: Robertson, 1903. Ent. News 14: 103 (Illinois species).—Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 450–451 (Key to large species).—Lovell and Cockerell, 1907. Psyche 14: 101 (Maine species).

No doubt some of the names listed above are valid in a subgeneric sense, but further study will be necessary to establish the limits of the subgenera.

antennariae Robertson. N. C., Wis., Ill.
Sphecodes antennariae Robertson, 1891. Amer. Ent. Soc. Trans. 18: 63. ♀.

arroyanus Cockerell. Alta., N. D., Colo., N. Mex., Calif.
Sphecodes arroyanus Cockerell, 1904. Entomologist 37: 231. ♀.

arvensiformis Cockerell. Colo., Utah, Oreg., Calif.
Sphecodes arvensiformis Cockerell, 1904. *In* Viereck, Canad. Ent. 36: 232. ♀.
Sphecodes levequae Cockerell, 1929. Ann. Mag. Nat. Hist. (10) 4: 296. ♀. N. syn. (Timberlake).
Taxonomy: Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 191. ♂,

arvensis Patton. Que., Maine, Mass., Conn., N. Y., N. J., N. C., Ind., Ill., Wis.
Sphecodes arvensis Patton, 1880. Amer. Ent. 1: 230. ♀ ♂.
?Halictus scabrosus Provancher, 1882. Nat. Canad. 13: 200. ♂.
Biology: Hicks, 1934. Colo. Univ., Studies 21: 265 (parasite of *Halictus rubicundus*).

asclepiadis Cockerell. N. Mex.
Sphecodes asclepiadis Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 45, ♀.—Cockerell, 1898. N. Mex. Univ. Bul. 1: 45. ♀.

banksii Lovell. N. Y.
Sphecodes banksii Lovell, 1909. Ent. News 20: 416. ♀.

borealis Cockerell. Sask.
Sphecodes borealis Cockerell, 1937. Amer. Mus. Novitates 909: 2. ♂.

californicus Meyer. Calif.; Mexico.
Sphecodes californicus Meyer, 1922. Arch. Naturgesch. 88 (Abt. A, Heft 8): 173. ♀.

clematidis Robertson. Mass., N. J., N. C., Wis., Ill., Kans.
Sphecodes clematidis Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 320. ♀ ♂.

columbiae Cockerell. Wash.
Sphecodes columbiae Cockerell, 1906. Canad. Ent. 38: 280. ♀.

confertus Say. Ont., N. H., Conn., N. Y., N. J., N. C., Ind., Ill., Wis., Tex., Colo.
Sphecodes confertus Say, 1837. Boston Jour. Nat. Hist. 1: 392.

Sphecodes falcifer Patton, 1880. Amer. Ent. 1: 230. ♀ ♂.
Drepanum falciferum Robertson, 1903. Ent. News 14: 105.
Taxonomy: Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 317, ♂ ♀.

davisii Robertson. Mass., Mich., Wis.
Sphecodes davisii Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 319. ♂.
Taxonomy: Graenicher, 1910. Canad. Ent. 42: 159, ♂ ♀.

dichrous Smith. Ont., Maine, Mass., N. Y., N. J., Va., Ill., Kans., ?Tex., ?Wash.
Sphecodes dichroa Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 38. ♀ ?not ♂.
?Sphecodes dichrous Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 316. ♂ ♀.
Sphecodes dichropa (!) Leonard, 1926. Cornell Univ. Agr. Expt. Sta. Mem. 101: 1027.
Taxonomy: Cockerell, 1904. Canad. Ent. 36: 304, ♀.—Lovell and Cockerell, 1907. Psyche 14: 102, ♀ ♂.

distolus Lovell. Va.
Sphecodes distolus Lovell, 1909. Ent. News 20: 416. ♀.

eustictus Cockerell. Wash., Colo.
Sphecodes eustictus Cockerell, 1906. Canad. Ent. 38: 162. ♀.

fortior Cockerell. N. Mex., Ariz., Calif.
Sphecodes fortior Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 44, ♀.—Cockerell, 1898. N. Mex. Univ. Bul. 1: 44. ♀.
Biology: Newberry, 1899. Psyche 9: 94.

fragariae Cockerell. Colo., N. Mex.
Sphecodes fragariae Cockerell, 1903. *In* Viereck, Amer. Ent. Soc. Trans. 29: 99.

galerus Lovell and Cockerell. N. H.
Sphecodes galerus Lovell and Cockerell, 1907. Psyche 14: 106. ♀.

heraclei Robertson. Conn., Va., N. C., Ill.
Sphecodes heraclei Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 318. ♀.

hesperellus Cockerell. Wash., Oreg., Calif.
Sphecodes (*Sphecodes*) *hesperellus* Cockerell, 1904. *In* Viereck, Canad. Ent. 36: 232. ♀.

heterus Lovell. N. H.
Sphecodes heterus Lovell, 1911. Ent. News 22: 212. ♀.

hudsoni Cockerell. Hudson's Bay, Canada.
Sphecodes hudsoni Cockerell, 1913. Canad. Ent. 45: 12. ♀.

ignitus Cockerell. Fla.
Sphecodes ignitus Cockerell, 1922. U. S. Natl. Mus. Proc. 60 (18): 13. ♂.
Taxonomy: Graenicher, 1930. Ent. Soc. Amer. Ann. 23: 158, ♀.

illinoensis (Robertson). Va., N. C., Ind., Ill.
Machaeris illinoensis Robertson, 1903. Ent. News 14: 107. ♀.

johnsonii Lovell. Maine, Mass.
Sphecodes johnsonii Lovell, 1909. Ent. News 20: 122. ♀.

kincaidii Cockerell. Wash.
Sphecodes kincaidii Cockerell, 1898. Acad. Nat. Sci. Phila. Proc. 50: 56. ♀.

knetschi Cockerell. Ill.
Sphecodes knetschi Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 186. ♀ ♂.

lautipennis Cockerell. Sask., N. Dak., Mont., Wash., Colo., Calif.
Sphecodes lautipennis Cockerell, 1908. Entomologist 41: 60. ♂.

lautus Lovell and Cockerell. Que., Ont., Maine.
Sphecodes lautus Lovell and Cockerell, 1907. Psyche 14: 103. ♀.

levis Lovell and Cockerell. Maine, Mass.
Sphecodes levis Lovell and Cockerell, 1907. Psyche 14: 105. ♀ ♂.

macfarlandi Viereck. N. H.
Sphecodes (*Sphecodes*) *macfarlandi* Viereck, 1909. Ent. News 20: 292. ♀.

mandibularis Cresson. Ont., Mass., Conn., N. Y., N. J., Ill., Wis., Kans., Colo., N. Mex., ?Calif.

Sphecodes mandibularis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 250. ♀.
Sphecodium cressonii Robertson, 1903. Ent. News 14: 106. ♀ ♂.
Taxonomy: Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 317, ♂ ♀.

manni Cockerell. Wash.
Sphecodes manni Cockerell, 1913. Ann. Mag. Nat. Hist. (8) 11: 63. ♀.

millsi Cockerell. Colo.
Sphecodes millsi Cockerell, 1919. Ent. News 30: 288. ♂.

minor Robertson. Mass., Conn., Ill., Wis., Miss., Alta.
Sphecodes minor Robertson, 1898. Acad. Sci. St. Louis, Trans. 8: 45. ♀.

nephelotus Lovell and Cockerell. Maine, Wis.
Sphecodes nephelotus Lovell and Cockerell, 1907. Psyche 14: 106. ♂.
Sphecodes nubilus Lovell, 1909. Ent. News 20: 124, 417. Error for *nephelotus*.

nigricans miguelensis Timberlake. Calif. (San Miguel Island).
Sphecodes nigricans miguelensis Timberlake, 1940. South. Calif. Acad. Sci. Bul. 39: 193. ♂.

nigricans nigricans Timberlake. Calif.
Sphecodes nigricans Timberlake, 1940. South. Calif. Acad. Sci. Bul. 39: 192. ♂.

nitidissimus Cockerell. Colo.
Sphecodes (*Sphecodium*) *nitidissimus* Cockerell, 1910. Canad. Ent. 42: 367. ♂.

obscurans Lovell and Cockerell. Que., Ont., Man., N. B., N. S., Maine, N. Y., Mass.
Sphecodes obscurans Lovell and Cockerell, 1907. Psyche 14: 103. ♀.

olympicus Cockerell. Wash.
Sphecodes (*Drepanium*) *Olympicus* Cockerell, 1904. *In* Viereck, Canad. Ent. 36: 230. ♀.

paraplesius Lovell. R. I.
Sphecodes paraplesius Lovell, 1911. Ent. News 22: 212. ♀.

patruelis Cockerell. Wash.
Sphecodes patruelis Cockerell, 1913. Ann. Mag. Nat. Hist. (8) 11: 61. ♀ ♂.

pecosensis pecosensis Cockerell. Colo., N. Mex.
Sphecodes pecosensis Cockerell, 1904. Entomologist 37: 5. ♀.
Proteraner leptanthi Cockerell, 1904. Entomologist 37: 232. ♂. N. syn. (Timberlake).
Taxonomy: Cockerell, 1906. Canad. Ent. 38: 165.—Cockerell, 1909. Canad. Ent. 41: 219, ♀ ♂.

pecosensis salicis Cockerell. Calif.
Sphecodes pecosensis salicis Cockerell, 1922. Ann. Mag. Nat. Hist. (9) 10: 547. ♀.

perlustrans Cockerell. N. Mex.
Sphecodes perlustrans Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 45, ♀.—Cockerell, 1898. N. Mex. Univ. Bul. 1: 45, ♀.

persimilis Lovell and Cockerell. Que., Ont., Man., Mich. (Timberlake), Maine, N. H., Vt., N. Y., Mass.
Sphecodes persimilis Lovell and Cockerell, 1907. Psyche 14: 103. ♀.

pimpinellae Robertson. Ill., N. C.
Sphecodes pimpinellae Robertson, 1900. Acad. Sci. St. Louis, Trans. 10: 51. ♀.

pithanus Lovell. Mass.
Sphecodes pithanus Lovell, 1909. Ent. News 20: 122. ♀.

politulus Cockerell. Sask.
Sphecodes politulus Cockerell, 1937. Amer. Mus. Novitates 909: 3. ♂.

prosphorus Lovell and Cockerell. Maine, Vt., Mass., N. J., Wis.
Sphecodes prosphorus Lovell and Cockerell, 1907. Psyche 14: 404. ♀ ♂.

pulsatillae Cockerell. Colo.
Sphecodes hesperellus pulsatillae Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 18: 75. ♀.

pusillus Cockerell. Sask.
Sphecodes pusillus Cockerell, 1937. Amer. Mus. Novitates 909: 3. ♂.

pycnanthemi Robertson. Ill., Colo.
Sphecodes pycnanthemi Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 320. ♀.

ranunculi Robertson. Maine to N. C., west to Wis., Kans., ?Ariz.
Sphecodes ranunculi Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 318. ♀ ♂.

rhois (Cockerell). Colo., N. Mex., Ariz.; Mexico.
Proteraner rhois Cockerell, 1904. Entomologist 37: 233. ♂.

rohweri Cockerell. Colo., N. Mex.
Sphecodes (*Machaeris*) *Rohweri* Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 450. ♀.

semicoloratus (Cockerell). N. Mex.
Halictus semicoloratus Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 168. ♀.

shawi Lovell. N. H.
Sphecodes shawi Lovell, 1911. Ent. News 22: 212. ♀.

smilacinae Robertson. Ill.
Sphecodes smilacinae Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 321. ♀.

solidaginis Cockerell. Sask.
Sphecodes solidaginis Cockerell, 1937. Amer. Mus. Novitates 909: 2. ♂.

solonis Graenicher. Wis.
Sphecodes solonis Graenicher, 1910. Pub. Mus. City Milwaukee Bul. 1: 229. ♂ ♀.

sophiae Cockerell. Colo., N. Mex., Ariz., Calif.
Sphecodes sophiae Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 44, ♀.—Cockerell, 1898. N. Mex. Univ. Bul. 1: 44. ♀.

stygius Robertson. N. J., Va., N. C., Ill., Wis.
Sphecodes stygius Robertson, 1893. Amer. Ent. Soc. Trans. 20: 145. ♀ ♂.
Taxonomy: Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 317, ♂ ♀.

sulcatulus Cockerell. Colo.
Sphecodes sulcatulus Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 426. ♀.

trentonensis Cockerell. N. Y.
Sphecodes trentonensis Cockerell, 1913. Ann. Mag. Nat. Hist. (8) 11: 62. ♀.

veganus Cockerell. N. Mex.
Sphecodes veganus Cockerell, 1904. Entomologist 37: 5. ♀.

washingtoni Cockerell. Wash.
Sphecodes (*Machaeris*) *Washingtoni* Cockerell, 1904. *In* Viereck, Canad. Ent. 36: 231. ♀.

Genus AGAPOSTEMON Guérin-Méneville

Andrena subg. *Agapostemon* Guérin-Méneville, 1844. Iconogr. Règne Anim., Ins., v. 3, p. 448.
Type: *Apis femoralis* Guérin-Méneville. Monob.

Revisions: Crawford, 1901. Nebr. Acad. Sci. Proc. 7: 156–165.—Cockerell, 1927. Pan-Pacific Ent. 3: 159.—Sandhouse, 1936. Wash. Acad. Sci. Jour. 26: 70–83.

angelicus angelicus Cockerell. N. Dak. to Tex., west to Utah and Calif.; north. Mexico.
Agapostemon angelicus Cockerell, 1924. Calif. Acad. Sci. Proc. (4) 12: 537. ♀.

angelicus idahoensis Michener. Idaho.
Agapostemon angelicus idahoensis Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 314. ♀.

cockerelli Crawford. Alta., N. Dak., N. Mex., Tex., B. C., Calif.; Mexico.
Agapostemon Cockerelli Crawford, 1901. Nebr. Acad. Sci. Proc. 7: 161. ♀.
Agapostemon femoratus Crawford, 1901. Nebr. Acad. Sci. Proc. 7: 162. ♂ ♀.
Agapostemon californicus Crawford, 1901. Nebr. Acad. Sci. Proc. 7: 164. ♀ (♂ misdet.).
?Nomia cillaba Cameron, 1902. Amer. Ent. Soc. Trans. 28: 376. ♂.
Agapostemon martini Cockerell, 1927. Pan-Pacific Ent. 3: 153. ♂ (♀ misdet.).
Biology: Hicks, 1936. Canad. Ent. 68: 47.

coloradensis Crawford. S. Dak., Nebr., Colo., Utah, N. Mex., Ariz.; Mexico.
Agapostemon coloradensis Crawford, 1901. Nebr. Acad. Sci. Proc. 7: 163. ♀.
Halictus Coloradinus Vachal, 1903. Misc. Ent. 11: 90. N. name. Unnecessarily proposed.
Agapostemon tyleri Cockerell, 1917. Ann. Mag. Nat. Hist. (8) 20: 241. ♀ ♂.
Agapostemon martini Cockerell, 1927. Pan-Pacific Ent. 3: 153. ♀ (♂ misdet.).

melliventris digueti Cockerell. Extreme southwest. Calif.; Lower Calif., Sonora.
Agapostemon digueti Cockerell, 1924. Calif. Acad. Sci. Proc. (4) 12: 539. ♀ ♂.

melliventris fasciatus Crawford. Nebr., Kans., Colo.
Agapostemon fasciatus Crawford, 1901. Nebr. Acad. Sci. Proc. 7: 163. ♀ ♂.
Halictus (Agapostemon) plurifasciatus Vachal, 1903. Misc. Ent. 11: 93, 101. ♀ ♂.

melliventris melliventris Cresson. Okla., Tex., Colo., N. Mex., Utah, Ariz., Calif.; Mexico. Found in deserts and very arid areas, principally in Lower Sonoran Zone.
Agapostemon melliventris Cresson, 1874. Amer. Ent. Soc. Trans. 5: 101. ♀.

radiatus (Say). Ont., Maine, Ga., west to N. Dak., Tex., ?Calif.
Halictus radiatus Say, 1837. Boston Jour. Nat. Hist. 1: 394. ♀.
Halictus tricolor Lepeletier, 1841. Hist. Nat. Ins., Hym., v. 2, p. 389. ♂.
Agapostemon pulchra Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 87. ♀.
Agapostemon sulcatulus Cockerell, 1909. Ann. Mag. Nat. Hist. (8) 4: 25. ♂.
Biology: Rau, 1934. Acad. Sci. St. Louis, Trans. 28: 219.

splendens (Lepeletier). N. H. to Fla., west to N. Dak., east. Colo., and Tex.
Halictus splendens Lepeletier, 1841. Hist. Nat. Ins., Hym., v. 2, p. 283. ♀.
Agapostemon aeruginosus Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 86. ♀.
Biology: Stevens, 1921. Canad. Ent. 53: 68.

texanus californicus Crawford. Coastal portions of Calif.
Agapostemon californicus Crawford, 1901. Nebr. Acad. Sci. Proc. 7: 164. ♂ (♀ misdet.).

texanus clementinus Cockerell. Calif. (San Clemente Island).
Agapostemon californicus clementinus Cockerell, 1939. Calif. Acad. Sci. Proc. (4) 23: 431. ♀ ♂.

texanus psammobius Cockerell. Calif. (San Miguel Island).
Agapostemon californicus psammobius Cockerell, 1937. Pan-Pacific Ent. 13: 150. ♂ ♀.

texanus texanus Cresson. Maine to Ga., west to B. C., Wash., and east. Calif; north. Mexico. Some of the forms listed in synonymy may be valid subspecies.
Agapostemon texanus Cresson, 1872. Amer. Ent. Soc. Trans. 4: 255. ♀.
Agapostemon texanus subtilior Cockerell, 1898. Ent. News 9: 27.
Agapostemon borealis Crawford, 1901. Nebr. Acad. Sci. Proc. 7: 160. ♀.
Agapostemon texanus iowensis Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 363. ♀.

texanus vandykei Cockerell. Sierra Nevada Mts., Calif.
Agapostemon texanus vandykei Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 191. ♀.

virescens (Fabricius). Que. to Fla., west to Tex., Colo., Utah, Oreg., Wash., B. C.
Andrena virescens Fabricius, 1775. Systema Ent., p. 378. [♀.]
Andrena nigricornis Fabricius, 1793. Ent. System., v. 2, p. 313.
Halictus dimidiatus Lepeletier, 1841. Hist. Nat. Ins., Hym. 2: 283.
Agapostemon bicolor Robertson, 1893. Amer. Ent. Soc. Trans. 20: 148. ♀ ♂.

Genus AUGOCHLORA Smith

Revision: Sandhouse, 1937. Wash. Acad. Sci. Jour. 27: 65–79.

Subgenus AUGOCHLORA Smith

Augochlora Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 73.
Type: *Halictus purus* Say. Desig. of Cockerell, 1923.
Oxystoglossa Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 83.
Type: *Oxystoglossa decorata* Smith. Monob.
Odontochlora Schrottky, 1909. La Plata Mus. Rev. 16: 14.
Type: *Augochlora muelleri* Cockerell. Orig. desig.

azteca (Vachal). South. Tex.; Mexico.
Halictus (Oxystoglossa) azteca Vachal, 1911. Misc. Ent. 19: 45, 110. ♀.

aztecula Cockerell. South. Tex.; Mexico.
Augochlora aztecula Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 534. ♀.

nigrocyanea Cockerell. South. Tex.; Mexico to Panama.
Augochlora nigrocyanea Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 144. ♀.

pura (Say). Que. to Minn., south to Tex. and Fla.
Halictus purus Say, 1837. Boston Jour. Nat. Hist. 1: 395. ♀ ♂.
Augochlora festiva Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 80. ♀. N. syn.
Augochlora Robertsoni Cockerell, 1897. Canad. Ent. 29: 69. ♀.
Augochlora Banksiella Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 533. ♀.
Halictus astios Vachal, 1911. Misc. Ent. 19: 44. ♀.
Halictus astios var. (?) *fuscatipes* Vachal, 1911. Misc. Ent. 19: 45. ♀.
Augochlora mosieri Cockerell, 1922. U. S. Natl. Mus. Proc. 60 (18): 15. ♀.
Augochlora palmarum Cockerell, 1922. U. S. Natl. Mus. Proc. 60 (18): 15. ♀ ♂.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24 (7): 32.—Blackman and Stage, 1924. N. Y. State Col. Forestry, Syracuse Univ., Tech. Pub. 17: 197.—Rau, 1934. Acad. Sci. St. Louis, Trans. 28: 223.

Subgenus AUGOCHLORELLA Sandhouse

Augochlorella Sandhouse, 1937. Wash. Acad. Sci. Jour. 27: 66.
Type: *Augochlora gratiosa* Smith. Orig. desig.

aurata Smith. Md. to Fla., west to Minn., Colo., N. Mex., and Tex.; north Mexico.
Augochlora aurata Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 82. ♀.
Augochlora similis Robertson, 1893. Amer. Ent. Soc. Trans. 20: 146. ♀ ♂. Preocc.
Augochlora neglectula Cockerell, 1897. N. Mex. Agr. Expt. Sta. Bul. 24: 43. ♀ ♂.
Halictus (Oxystoglossa) persimilis Viereck, 1910. *In* Smith, N. J. State Mus., Ann. Rpt. 1909: 688. N. name.
?Halictus xystris Vachal, 1911. Misc. Ent. 19: 50. ♀.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24 (7): 32.

gratiosa Smith. N. J., N. C., S. C., Ga., Fla., Ala., Miss.
Augochlora gratiosa Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 80. ♀.
Augochlora austrina Robertson, 1893. Amer. Ent. Soc. Trans. 20: 147. ♀.

pomoniella pomoniella Cockerell. Ariz., Calif.
Augochlora pomoniella Cockerell, 1915. Pomona Jour. Ent. Zool. 7: 232. ♀.

pomoniella utahensis Michener, n. status. Utah.
Augochlora utahensis Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 314. ♀.

striata Provancher. Que. to Fla., west to S. Dak. and N. Mex.
Augochlora striata Provancher, 1888. Addit. Corr. Faune Ent. Canada, Hym., p. 317. ♀ ♂.
Augochlora matilda Robertson, 1893. Amer. Ent. Soc. Trans. 20: 147. ♀.
Augochlora confusa Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 324. ♀ ♂.
Augochlora Coloradensis Titus, 1901. Canad. Ent. 33: 133. ♀ ♂.
Halictus asaphes Vachal, 1911. Misc. Ent. 19: 49. ♀.
Augochlora pseudopurella Strand, 1914. Arch. Naturgesch. 80 (Abt. A, Heft 1): 163.
Biology: Hicks, 1931. Canad. Ent. 63: 176.

Unrecognized Species Not Placed as to Subgenus

obliqua Provancher. Vancouver, B. C.
Augochlora obliqua Provancher, 1888. Addit. Corr. Faune Ent. Canada, Hym., p. 318. ♀.

Species Apparently Incorrectly Attributed to Nearctic Region

joannisi (Vachal). Ecuador; ?Iowa.
Halictus joannisi Vachal, 1904. Misc. Ent. 12: 20, 24. ♀ ♂.

Genus AUGOCHLOROPSIS Cockerell

Augochlora subg. *Augochloropsis* Cockerell, 1897. Canad. Ent. 29: 4.
Type: (*Augochlora* (*Augochloropsis*) *subignita* Cockerell)= *Augochlora ignita* Smith. Orig. desig.
Augochloropsis subg. *Paraugochloropsis* Schrottky, 1906. Ztschr. System. Hym. Dipt. 6: 312.
Type: *Augochloropsis* (*Paraugochloropsis*) *lycorias* Schrottky. Monob.
Tetrachlora Schrottky, 1909. Deut. Ent. Ztschr., p. 481.
Type: *Halictus multiplex* Vachal. Monob.
Revision: Sandhouse, 1937. Wash. Acad. Sci. Jour. 27: 71–75.

cuprea (Smith). Ont., N. H., to Fla., west to S. Dak., Colo., Ariz., Tex., south to Panama.
Augochlora cuprea Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 79. ♀.
Augochlora fulgida Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 79. ♀.
Augochlora viridula Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 81. ♂.
Augochlora fervida Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 81. ♂.
Augochlora lucidula Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 81. ♀.
?Augochlora sumptuosa Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 82. ♀.
Augochlora cleomis Titus, 1901. Canad. Ent. 33: 135. ♀ ♂.
?Halictus (*Augochlora*) *chorisis* Vachal, 1903. Misc. Ent. 11: 136. ♀.
Halictus (*Augochlora*) *viridissimus* Viereck, 1910. *In* Smith, N. J. State Mus., Ann. Rpt. 1909: 688 (proposed to replace *viridula* Smith, preoccupied in *Halictus*).
Augochlora fulvofimbriata Friese, 1916. Stettin. Ent. Ztg. 77: 315. ♀ (♂ misdet.).
Augochlora anonyma Cockerell, 1922. U. S. Natl. Mus. Proc. 60 (18): 15. ♂.
Taxonomy: Dreisbach, 1945. Mich. Acad. Sci., Arts, and Letters Papers 30: 222.

humeralis humeralis (Patton). N. J. to Fla., west to S. Dak., Colo., and Tex.
Augochlora humeralis Patton, 1879. U. S. Geol. Geog. Survey Bul. 5: 365. ♀ ♂.
Agapostemon caeruleus Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 7. ♀.
Halictus pattoni Vachal, 1903. Misc. Ent. 11: 132 (proposed to replace *humeralis* Patton, preoccupied in *Halictus* by *humeralis* Sichel).
Augochlora sumptuosa bolliana Cockerell, 1909. Ann. Mag. Nat. Hist. (8) 4: 31. ♀.
Biology: Smith, 1898. Ent. News 9: 157, 320.—Smith, 1901. N. Y. Ent. Soc. Jour. 9: 52.

humeralis lacustris (Cockerell). Fla.
Augochlora lacustris Cockerell, 1922. U. S. Natl. Mus. Proc. 60 (18): 14. ♀.
Augochlora floridica Cockerell, 1922. U. S. Natl. Mus. Proc. 60 (18): 14. ♂.

Subfamily NOMIINAE

Genus NOMIA Latreille

Review: Cockerell, 1910. U. S. Natl. Mus. Proc. 38: 289–298.
Key: Cockerell, 1930. *In* Cockerell and Blair, Amer. Mus. Novitates 433: 15–17.

Subgenus NOMIA Latreille

Nomia Latreille, 1804. Nouv. Dict. Hist. Nat., v. 24, p. 182.
Type: ***Andrena curvipes*** Fabricius. Monob.
Nitocris Rafinesque, 1815. Analyse de la nature, p. 123. Proposed unnecessarily for *Nomia* Latrielle.

This subgenus is found only in the Old World.

Subgenus CURVINOMIA Michener

Nomia subg. ***Curvinomia*** Michener, 1944. Amer. Mus. Nat. Hist. Bul. 82: 251.
Type: ***Nomia californiensis*** Michener. Monob. and orig. desig.

californiensis Michener. Calif.
Nomia californiensis Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 318. ♀.

Subgenus EPINOMIA Ashmead

Epinomia Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 88.
Type: (***Nomia persimilis*** Cockerell)=***Nomia triangulifera*** Vachal. Monob. and orig. desig.

bakeri bakeri Cockerell. Colo., Tex., Ariz.
Nomia bakeri Cockerell, 1898. Entomologist 31: 32. ♂.
Nomia bakeri var. ***rufibasis*** Cockerell, 1930. *In* Cockerell and Blair, Amer. Mus. Novitates 433: 14.
Taxonomy: Cockerell, 1908. Canad. Ent. 40: 147, ♀.
Biology: Hicks, 1926. Colo. Univ., Stuides 15: 222.—Cockerell, 1934. Amer. Mus. Novitates 697: 4.

bakeri pattoni Cockerell. Ala., Miss., Tex.
Nomia pattoni Cockerell, 1910. U. S. Natl. Mus. Proc. 38: 292. ♀ ♂.

nevadensis angelesia Cockerell. Coastal Calif.
Nomia arizonensis angelesia Cockerell, 1910. U. S. Natl. Mus. Proc. 38: 293. ♂.

nevadensis arizonensis Cockerell. Ariz.
Nomia arizonensis Cockerell, 1899. Entomologist 32: 128. ♂.
Taxonomy: Cockerell, 1910. U. S. Natl. Mus. Proc. 38: 293, ♂.

nevadensis nevadensis Cresson. N. Mex., Ariz., Nev., east. Calif.
Nomia nevadensis Cresson, 1874. Amer. Ent. Soc. Trans. 5: 101. ♀ ♂.

triangulifera Vachal. N. Dak., Iowa, Nebr., Mo., Kans., Colo., N. Mex., Tex.
Nomia triangulifera Vachal, 1897. Misc. Ent. 5: 9. ♂.
Nomia persimilis Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 50, 72. ♀ ♂.
Taxonomy: Cockerell, 1898. N. Mex. Univ. Bul. 1: 50, 72, ♀ ♂.
Biology: Pierce, 1904. Nebr. Univ., Studies 4: 181.—Rau, 1929. Psyche 36: 243.

Subgenus ACUNOMIA Cockerell

Nomia subg. ***Acunomia*** Cockerell, 1930. *In* Cockerell and Blair, Amer. Mus. Novitates 433: 11.
Type: ***Nomia nortoni*** Cresson. Orig. desig.

fedorensis Cockerell. Tex.
Nomia fedorensis Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 6: 277. ♀ ♂.
Biology: Cockerell, 1934. Amer. Mus. Novitates 697: 4.

foxii Dalla Torre. S. Dak., Nebr., Colo., Ariz., N. Mex., Tex.; north. Mexico.
Nomia punctata Fox, 1893. Ent. News 4: 135. ♀. Preocc.

Nomia foxii Dalla Torre, 1896. Cat. Hym., v. 10, p. 167. N. name.
Nomia moctezumae Crawford, 1911. U. S. Natl. Mus. Proc. 39: 618. ♀.
Taxonomy: Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 2: 333.

maneei Cockerell. N. J., N. C., S. C., Ga., Fla., Miss.
Nomia maneei Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 6: 276. ♀.

melandri melandri Cockerell. Wyo., Colo., Utah, Idaho, Wash., Calif.
Nomia melandri Cockerell, 1906. Canad. Ent. 38: 279. ♀.
Nomia melanderi Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 2: 334. Emend.
Nomia californica Cockerell, 1910. U. S. Natl. Mus. Proc. 38: 296. ♀.
Nomia acus Cockerell, 1910. U. S. Natl. Mus. Proc. 38: 296. ♂.
Nomia melanderi paysoni Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 621. ♂.
Biology: Bohart, 1947. Farm and Home Sci. (Utah Agr. Expt. Sta.) 8 (4): 13.

melandri peninsularis Cockerell. South. Calif. deserts; Lower Calif.
Nomia californica peninsularis Cockerell, 1930. *In* Cockerell and Blair, Amer. Mus. Novitates 433: 12.

mesillensis Cockerell. N. Mex.
Nomia mesillensis Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 2: 334. ♀.
Taxonomy: Cockerell, 1912. Ann. Mag. Nat. Hist. (8) 10: 493.

nortoni Cresson. N. C., Ga., Fla., Ill., S. Dak., Nebr., Kans., Colo., N. Mex., Tex., La.; Mexico.
Nomia nortoni Cresson, 1868. Amer. Ent. Soc. Trans. 1: 385. ♀ ♂.
Nomia Cressoni Westwood, 1875. Ent. Soc. London Trans., p. 218. ♂.
Nomia nortoni var. *plebia* Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 6: 276. ♀.
Biology: Cockerell, 1934. Amer. Mus. Novitates 697: 7.

parksi Cockerell. Tex.
Nomia parksi Cockerell, 1934. Amer. Mus. Novitates 697: 7. ♀.

tetrazonata Cockerell. Ariz., south. Calif., deserts.
Nomia tetrazonata Cockerell, 1910. U. S. Natl. Mus. Proc. 38: 297. ♂.
Taxonomy: Michener, 1936. Amer. Mus. Novitates 876: 4, ♀.

universitatis Cockerell. S. Dak., Colo.
Nomia universitatis Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 2: 334. ♂.

uvaldensis Cockerell. Tex.
Nomia uvaldensis Cockerell, 1930. *In* Cockerell and Blair, Amer. Mus. Novitates 433: 13. ♀.

zabriskii Cockerell and Blair. Tex.
Nomia zabriskii Cockerell and Blair, 1930. Amer. Mus. Novitates 433: 13. ♂.

Subgenus DIEUNOMIA Cockerell

Eunomia Cresson, 1875. *In* Wheeler, Rpt. Geog. Geol. Expl. Survey west of 100th Meridian, v. 5, p. 722. Preocc.
Type: *Eunomia marginipennis* Cresson. Desig. by Cockerell, 1910.
Dieunomia Cockerell, 1899. Entomologist 32: 14. N. name.
Type: *Eunomia marginipennis* Cresson. Autob.
Monia (!) Howard, 1901. Insect Book, pl. IV, figs. 34, 38.
Revision: Blair, 1935. N. Y. Ent. Soc. Jour. 43: 201–214, pl. XVI.

apacha Cresson. Nebr., Colo., N. Mex., Tex.
Nomia (?) *apacha* Cresson, 1868. Amer. Ent. Soc. Trans. 1: 386. ♀.

bolliana bolliana Cockerell. N. Mex., Tex.
Nomia bolliana Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 259. ♀.
Taxonomy: Cockerell, 1910. U. S. Natl. Mus. Proc. 38: 295. ♀ ♂.

bolliana helenii Cockerell. Tex.
Nomia bolliana helenii Cockerell, 1936. Amer. Mus. Novitates 831: 2. ♀.

heteropoda heteropoda (Say). Md., Minn., Wis., Ill., Miss.
Nomia (?) *heteropoda* Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 349. ♂.

Andrena valida Say, 1837. Boston Jour. Nat. Hist. 1: 393. ♀.
Nomia heteropoda validescens Blair, 1935. N. Y. Ent. Soc. Jour. 43: 206. ♂.
Nomia heteropoda subvalida Blair, 1935. N. Y. Ent. Soc. Jour. 43: 206. ♀.
Taxonomy: Cockerell, 1934. Amer. Mus. Novitates 697: 4.

heteropoda kirbii Smith. Fla., Nebr., Colo., Kans., Ark., Okla., N. Mex., Ariz., Tex. Apparently incorrectly recorded from Brazil.
Nomia Kirbii Smith, 1865. Ent. Soc. London Trans. (3) 2: 398. ♂.
Eunomia marginipennis Cresson, 1875. Rpt. Geog. Geol. Expl. Survey west of 100th Meridian, v. 5, p. 722. ♀ ♂.
Nomia heteropoda var. *semivalida* Cockerell, 1934. Amer. Mus. Novitates 697: 5. ♂.
Nomia heteropoda var. *atripennis* Cockerell, 1934. Amer. Mus. Novitates 697: 6. ♀ ♂.
Nomia heteropoda semirubra Cockerell, 1934. Amer. Mus. Novitates 697: 6. ♀ ♂.
Nomia heteropoda var. *subvalidior* Blair, 1935. N. Y. Ent. Soc. Jour. 43: 208. ♀.
Taxonomy: Westwood, 1875. Ent. Soc. London Trans., p. 217.

mesillae (Cockerell). Colo., N. Mex., Tex.
Dieunomia mesillae Cockerell, 1899. Entomologist 32: 266. ♂.
Taxonomy: Cockerell, 1930. Amer. Mus. Novitates 433: 10. ♂ ♀.

xerophila (Cockerell). Colo., Utah, N. Mex., Ariz.
Dieunomia xerophila Cockerell, 1899. Entomologist 32: 265. ♂ ♀.

Subgenus Unknown

compacta Provancher. Que.
Nomia compacta Provancher, 1888. Addit. Corr. Faune Ent. Canada, Hym., p. 337. ♂.
tacita Cameron. N. Mex. (probably not North American).
Nomia tacita Cameron, 1902. Amer. Ent. Soc. Trans. 28: 376. ♂.

Nomen Nudum in Nomia Latreille

Nomia birkmanii Birkman, 1899. Ent. News 23: 244.

Subfamily DUFOUREINAE

Genus CONANTHALICTUS Cockerell

Subgenus CONANTHALICTUS Cockerell

Halictus subg. *Conanthalictus* Cockerell, 1901. Ent. News 12: 209.
Type: *Halictus* (*Conanthalictus*) *conanthi* Cockerell. Monob.

conanthi (Cockerell). N. Mex.
Halictus (*Conanthalictus*) *conanthi* Cockerell, 1901. Ent. News 12: 208. ♀.
cotullensis Crawford. Tex.
Conanthalictus cotullensis Crawford, 1907. N. Y. Ent. Soc. Jour. 15: 182. ♀ ♂.

Subgenus PHACELIAPIS Michener

Conanthalictus subg. *Phaceliapis* Michener, 1942. N. Y. Ent. Soc. Jour. 50: 277.
Type: *Conanthalictus bakeri* Crawford. Orig. desig.

bakeri Crawford. Calif. On flowers of *Phacelia*.
Conanthalictus Bakeri Crawford, 1907. Invertebrata Pacifica 1: 197. ♀.
Taxonomy: Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 51. ♂ ♀.

macrops Cockerell. Calif. On flowers of *Phacelia*.
Conanthalictus macrops Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 51. ♂.

seminiger Michener. Calif. On flowers of *Emmenanthe*.
Conanthalictus seminiger Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 326. ♀.

wilmattae Cockerell. Calif. On flowers of *Phacelia*.
Conanthalictus wilmattae Cockerell, 1936. Amer. Mus. Novitates 831: 2. ♀.

Subgenus SPHECODOSOMA Crawford

Sphecodosoma Crawford, 1907. N. Y. Ent. Soc. Jour. 15: 182.
Type: *Sphecodosoma pratti* Crawford. Monob. and orig. desig.

pratti (Crawford), n. comb. Tex.
Sphecodosoma pratti Crawford, 1907. N. Y. Ent. Soc. Jour. 15: 183. ♀ ♂.

Genus MICRALICTOIDES Timberlake

Dufourea subg. *Micralictoides* Timberlake, 1939. Ent. Soc. Amer. Ann. 32: 397.
Type: *Halictoides ruficaudus* Michener. Orig. desig.
Revision: Bohart, 1942. Pan-Pacific Ent. 18: 119–123.

altadenae (Michener). South. Calif. On flowers of *Eriophyllum confertiflorum*.
Halictoides altadenae Michener, 1936. Ann. Mag. Nat. Hist. (10) 19: 395. ♀ ♂.

mojavensis Bohart. South. Calif.
Micralictoides mojavensis Bohart, 1942. Pan-Pacific Ent. 18: 120. ♂ ♀.

ruficaudus (Michener). Calif. On flowers of *Eschscholtzia*.
Halictoides ruficaudus Michener, 1936. Ann. Mag. Nat. Hist. (10) 19: 397. ♀.

Genus DUFOUREA Lepeletier

Subgenus DUFOUREA Lepeletier

Dufourea Lepeletier, 1841. Hist. Nat. Ins., Hym., v. 2, p. 227.
Type: *Dufourea minuta* Lepeletier. Desig. by Richards, 1935.

convergens Bohart. Calif.
Dufourea convergens Bohart, 1949. Ent. Soc. Amer. Ann. 42: 59. ♂.

leachi Timberlake. Calif. (Mendocino County).
Dufourea leachi Timberlake, 1939. Ent. Soc. Amer. Ann. 32: 398. ♂.

viridis Timberlake. South. Calif.
Dufourea (*Dufourea*) *viridis* Timberlake, 1941. Ent. Soc. Amer. Ann. 34: 39. ♂ ♀.

Subgenus HALICTOIDES Nylander

Halictoides Nylander, 1848. Notiser Sällskapet Faune Flora Fenn., v. 1, p. 195.
Type: *Halictoides dentiventris* Nylander. Desig. by Cockerell and Porter, 1899.
Halictoides subg. *Epihalictoides* Cockerell and Porter, 1899. Ann. Mag. Nat. Hist. (7) 4: 420.
Type: *Panurgus marginatus* Cresson. Monob.
Halictoides subg. *Parahalictoides* Cockerell and Porter, 1899. Ann. Mag. Nat. Hist. (7) 4: 420.
Type: *Halictoides campanulae* Cockerell. Orig. desig.
Conohalictoides Viereck, 1904. Ent. News 15: 245.
Type: (*Conohalictoides lovelli* Viereck)=*Panurgus novae-angliae* Robertson. Monob. and orig. desig.
Neohalictoides Viereck, 1904. Ent. News 15: 261.
Type: *Panurgus maurus* Cresson. Monob. and orig. desig.
Cryptohalictoides Viereck, 1904. Ent. News 15: 261.
Type: *Cryptohalictoides spiniferus* Viereck. Monob. and orig. desig.
Mimulapis Bridwell, 1919. Hawaii. Ent. Soc. Proc. 4: 162.
Type: *Mimulapis versatilis* Bridwell. Monob. and orig. desig.
Betheliella Cockerell, 1924. Ent. News 35: 169.
Type: *Betheliella calochorti* Cockerell. Monob.
Halictoides subg. *Cephalictoides* Cockerell, 1924. Psyche 31: 244.
Type: *Halictoides paradoxus* Morawitz. Monob. and orig. desig.

afasciata Bohart. Oreg., Calif.
Dufourea afasciata Bohart, 1948. Ent. Soc. Amer. Ann. 41: 130. ♂ ♀.

australis australis (Michener). South. Calif., coastal. Another subspecies occurs in Lower California.
Halictoides australis Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 398. ♂.

australis dammersi Timberlake. South. Calif., deserts.
Dufourea (Halictoides) dammersi Timberlake, 1939. Ent. Soc. Amer. Ann. 32: 407. ♂.

bernardina (Michener). Calif.
Halictoides bernardina Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 401. ♂ ♀.

boregoensis (Michener). Calif.
Halictoides boregoensis Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 398. ♂.

brevicornis Timberlake. South. Calif. On flowers of *Linanthus*.
Dufourea (Halictoides) brevicornis Timberlake, 1939. Ent. Soc. Amer. Ann. 32: 403. ♂ ♀.

calientensis Timberlake. Calif. On flowers of *Eschscholtzia*.
Dufourea (Halictoides) calientensis Timberlake, 1939. Ent. Soc. Amer. Ann. 32: 405. ♂ ♀.

californica (Michener). Calif.
Halictoides californicus Michener, 1935. Pan-Pacific Ent. 11: 181. ♂.

calochorti calochorti (Cockerell). Calif.
Betheliella calochorti Cockerell, 1924. Ent. News 35: 170. ♂.

calochorti sculleni (Cockerell), n. comb. Oreg.
Betheliella calochorti sculleni Cockerell, 1937. Canad. Ent. 69: 33. ♂.

campanulae (Cockerell), n. comb. Wash.
Halictoides campanulae Cockerell, 1897. Canad. Ent. 29: 289. ♂.

crassipes (Cockerell). Oreg.
Halictoides crassipes Cockerell, 1924. Psyche 31: 243. ♂.

cuprea Bohart. Calif.
Dufourea cuprea Bohart, 1948. Ent. Soc. Amer. Ann. 41: 119. ♂ ♀.

davidsoni (Cockerell). Calif.
Halictoides davidsoni Cockerell, 1902. South. Calif. Acad. Sci. Bul. 1: 140. ♂.
Taxonomy: Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 199, ♂ ♀.

dentipes Bohart. Calif.
Dufourea dentipes Bohart, 1948. Ent. Soc. Amer. Ann. 41: 132. ♂ ♀.

desertorum Timberlake. South. Calif., deserts. On flowers of *Eschscholtzia*.
Dufourea (Halictoides) desertorum Timberlake, 1939. Ent. Soc. Amer. Ann. 32: 408. ♂ ♀.

dilatipes Bohart. Alta., Mont.
Dufourea dilatipes Bohart, 1948. Ent. Soc. Amer. Ann. 41: 135. ♂ ♀.

echinocacti Timberlake. South. Calif., deserts. On flowers of *Echinocactus*.
Dufourea (Halictoides) echinocacti Timberlake, 1939. Ent. Soc. Amer. Ann. 32: 399. ♂ ♀.

fallugiae (Cockerell). N. Mex.
Halictoides fallugiae Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 359. ♀.

femorata Bohart. Calif.
Dufourea femorata Bohart, 1947. Ent. Soc. Amer. Ann. 40: 701. ♂ ♀.

fimbriata fimbriata (Cresson), n. comb. Colo., N. Mex., Ariz., high mountains.
Panurgus fimbriatus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 63. ♀.
Halictoides Harveyi Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 223. ♀. N. syn. (G. E. Bohart).

fimbriata sierrae (Michener). Calif. (Sierra Nevada Mts.).
Halictoides harveyi sierrae Michener, 1937. Ann. Mag. Nat. Nist. (10) 19: 397. ♀.

gilia Bohart. Calif.
Dufourea gilia Bohart, 1947. Ent. Soc. Amer. Ann. 40: 692. ♂ ♀.

holocyanea (Cockerell). Oreg.
Halictoides holocyaneus Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 199. ♂.

impunctata Bohart. Calif.?
Dufourea impunctata Bohart, 1949. Ent. Soc. Amer. Ann. 42: 58. ♂.

latifrons Timberlake. South. Calif., deserts. On flowers of *Oenothera.*
Dufourea (Halictoides) latifrons Timberlake, 1939. Ent. Soc. Amer. Ann. 32: 409. ♂.

linanthi Timberlake. South. Calif. On flowers of *Linanthus.*
Dufourea (Halictoides) linanthi Timberlake, 1939. Ent. Soc. Amer. Ann. 32: 402. ♂ ♀.

longiceps Bohart. Calif.
Dufourea longiceps Bohart, 1948. Ent. Soc. Amer. Ann. 41: 128. ♂ ♀.

malacothricis Timberlake. Calif., deserts. Principally on flowers of *Malacothrix.*
Dufourea (Halictoides) malacothricis Timberlake, 1939. Ent. Soc. Amer. Ann. 32: 406. ♂ ♀.

marginata halictella Michener, n. name. Wyo., Utah, Colo., N. Mex. On flowers of Compositae.
Panurgus halictulus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 63. ♂. Preocc. by Nylander, 1852.
Taxonomy: Cockerell, 1922. Amer. Mus. Novitates 40: 3.

marginata marginata (Cresson), n. comb. Wis. and Ill. to Miss., west to Alta. and east. Colo. On flowers of *Helianthus.*
Panurgus marginatus Cresson, 1878. Amer. Ent. Soc. Ann. 7: 62. ♀.
Panurgus autumnalis Robertson, 1895. Amer. Ent. Soc. Trans. 22: 121. ♀

maura (Cresson), n. comb. N. Dak., Wyo., Idaho, Nebr., Colo., N. Mex. On flowers of *Campanula.*
Panurgus maurus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 61. "♀" = ♂.

monardae (Viereck), n. comb. Wis. On flowers of *Monarda.*
Conohalictoides monardae Viereck, 1924. Ent. Soc. Wash. Proc. 26: 14. ♂ ♀.

mulleri (Cockerell). Wyo., Calif. On flowers of *Phacelia.*
Halictoides mulleri Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 190. ♀.
Taxonomy: Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 24, ♂.—Michener, 1937. Ann. Mag. Nat. Hist (10) 19: 400, ♀ ♂.

nemophilae (Michener). Calif.
Halictoides nemophilae Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 400. ♂ ♀.

neocalifornica Bohart. Calif.
Dufourea neocalifornica Bohart, 1947. Ent. Soc. Amer. Ann. 40: 697.

novae-angliae (Robertson), n. comb. Maine, Mass., Conn., N. J., Wis. On flowers of *Pontederia.*
Panurgus novae-angliae Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 339. ♂.
Conohalictoides lovelli Viereck, 1904. Ent. News 15: 245. ♀ ♂.

nudicornis Timberlake. South. Calif., deserts. On flowers of *Oenothera.*
Dufourea (Halictoides) nudicornis Timberlake, 1939. Ent. Soc. Amer. Ann. 32: 412. ♂ ♀.

oenotherae Timberlake. South. Calif. On flowers of *Oenothera.*
Dufourea (Halictoides) oenotherae Timberlake, 1939. Ent. Soc. Amer. Ann. 32: 413. ♂.

oryx (Viereck), n. comb. B. C., Colo., Ariz., N. Mex.
Halictoides (Parahalictoides) oryx Viereck, 1903. Amer. Ent. Soc. Trans. 29: 48. ♂.
Taxonomy: Cockerell, 1916. Ent. News 27: 62. ♀.

pectinipes Bohart. Calif.
Dufourea pectinipes Bohart, 1948. Ent. Soc. Amer. Ann. 41: 126. ♂ ♀.

pulchricornis (Cockerell), n. comb. N. Mex.
Halictoides pulchricornis Cockerell, 1916. Ent. News 27: 63. ♂ ♀.

rhamni (Michener). Calif.
Halictoides rhamni Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 394. ♂ ♀.

sandhouseae arida Bohart. Calif., desert.
Dufourea sandhouseae arida Bohart, 1949. Ent. Soc. Amer. Ann. 42: 61. ♂ ♀.

sandhouseae sandhouseae (Michener). Calif.
Halictoides sandhouseae Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 328. ♂ ♀.

saundersi (Cockerell). ?Calif.
Halictoides saundersi Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 189. ♀ ♂.

scabricornis Bohart. Calif., Utah; mountains.
Dufourea scabricornis Bohart, 1949. Ent. Soc. Amer. Ann. 42: 57. ♂ ♀.

scintilla (Cockerell). Calif.
Diandrena scintilla Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 50. ♀.
Halictoides eschscholtziae Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 393. ♂ ♀.

spilura (Cockerell). Calif.
Halictoides spilurus Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 200. ♀.

spinifera (Viereck). Nev., Calif., high mountains.
Cryptohalictoides spiniferus Viereck, 1904. Ent. News 15: 261. ♂.
Taxonomy: Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 199, ♂ ♀.—Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 402, ♀.

subdavidsoni Bohart. Calif. (Sierra Nevada Mts.).
Dufourea subdavidsoni Bohart, 1949. Ent. Soc. Amer. Ann. 42: 55. ♂ ♀.

tarsata Bohart. Calif.
Dufourea tarsata Bohart, 1947. Ent. Soc. Amer. Ann. 40: 698. ♂ ♀.

timberlakei Bohart. Calif.
Dufourea timberlakei Bohart, 1947. Ent. Soc. Amer. Ann. 40: 700. ♂.

tinsleyi (Cockerell). N. Mex.
Halictoides tinsleyi Cockerell, 1898. Canad. Ent. 30: 52. ♀.

trochantera Bohart. Wash., Oreg., Wyo., Utah, Calif.
Dufourea trochantera Bohart, 1948. Ent. Soc. Amer. Ann. 41: 121. ♂ ♀.

truncata Timberlake. South. Calif. On flowers of *Oenothera* and *Cryptantha*.
Dufourea (Halictoides) truncata Timberlake, 1939. Ent. Soc. Amer. Ann. 32: 410. ♂ ♀.

tularensis Timberlake. Calif.
Dufourea (Halictoides) tularensis Timberlake, 1941. Ent. Soc. Amer. Ann. 34: 41. ♂ ♀.

tuolumne Bohart. Calif.
Dufourea tuolumne Bohart, 1947. Ent. Soc. Amer. Ann. 40: 694. ♂ ♀.

vanduzeei Bohart. Calif.
Dufourea vanduzeei Bohart, 1947. Ent. Soc. Amer. Ann. 40: 696. ♂.

vandykei Bohart. Calif.
Dufourea vandykei Bohart, 1948. Ent. Soc. Amer. Ann. 41: 124. ♂ ♀.

vernalis Timberlake. South. Calif., deserts. Principally on flowers of *Eschscholtzia*.
Dufourea (Halictoides) vernalis Timberlake, 1939. Ent. Soc. Amer. Ann. 32: 400. ♂ ♀.

versatilis rubriventris Michener, n. name. Calif. (Sierra Nevada Mts.). On flowers of *Mimulus*.
Mimulapis versatilis rufiventris Timberlake, 1941. Ent. Soc. Amer. Ann. 34: 38. ♀ ♂. Preocc. by Friese, 1898.

versatilis versatilis (Bridwell), n. comb. Calif. (San Jacinto Mts.). On flowers of *Mimulus.*
Mimulapis versatilis Bridwell, 1919. Hawaii. Ent. Soc. Proc. 4: 163. ♂ ♀.

virgata (Cockerell). Calif.
Halictoides virgatus Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 191. ♀ ♂.
Taxonomy: Cockerell, 1902. South. Calif. Acad. Sci. Bul. 1: 140, ♂ ♀.

viridescens (Crawford). Calif.
Halictoides viridescens Crawford, 1916. Insecutor Inscitiae Menstruus 4: 139. ♂.

Family MELITTIDAE[71]

Subfamily MELITTINAE

Genus MELITTA Kirby

Subgenus MELITTA Kirby

Melitta Kirby, 1802. Monographia Apum Angliae, v. 1, p. 117.
Type: ***Melitta tricincta*** Kirby. Desig. by Richards, 1935.
Cilissa Leach, 1812. *In* Brewster's Edinburgh Encycl., v. 9, p. 154.
Type: ***Andrena haemorrhoidalis*** Fabricius. Desig. by Westwood, 1840.
Kirbya Lepeletier, 1841. Hist. Nat. Ins. Hym., v. 2, p. 145. Preocc.
Type: ***Melitta tricincta*** Kirby. Desig. by Sandhouse, 1943.
Melitta subg. ***Brachycephalapis*** Viereck, 1909. Ent. Soc. Wash. Proc. 11: 47.
Type: ***Melitta californica*** Viereck. Monob. and orig. desig.

americana (Smith). Maine, Mass., N. C., Miss.
Cilissa americana Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 123. ♀.
Taxonomy: Cockerell, 1906. Psyche 13: 5, ♀.

americaniformis Viereck. N. J.
Melitta americaniformis Viereck, 1909. Ent. Soc. Wash. Proc. 11: 50. ♀.

wilmattae Cockerell. Ariz.
Melitta wilmattae Cockerell, 1937. Amer. Mus. Novitates 948: 3. ♀.

Subgenus DOLICHOCHILE Viereck

Dolichochile Viereck, 1909. Ent. Soc. Wash. Proc. 11: 49.
Type: ***Dolichochile melittoides*** Viereck. Monob. and orig. desig.

melittoides (Viereck). N. J., Md., Va., N. C.
Dolichochile melittoides Viereck, 1909. Ent. Soc. Wash. Proc. 11: 49. ♀.
Taxonomy: Cockerell, 1911. Ann. Mag. Nat. Hist. (8) 8: 692.

Subfamily DASYPODINAE

Genus HESPERAPIS Cockerell

Revision: Cockerell, 1916. Psyche 23: 176–177.

Subgenus HESPERAPIS Cockerell

Hesperapis Cockerell, 1898. Canad. Ent. 30: 147.
Type: ***Hesperapis elegantula*** Cockerell. Monob.
Zacesta Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 73.
Type: ***Zacesta rufipes*** Ashmead. Monob. and orig. desig.

arida Michener. South. Calif., desert. On flowers of *Larrea.*
Hesperapis arida Michener, 1936. Ent. News 47: 183. ♂ ♀.

elegantula Cockerell. N. Mex.
Hesperapis elegantula Cockerell, 1898. Canad. Ent. 30: 148. ♀.

rufipes (Ashmead). South. Calif. Usually on flowers of *Hugelia.*
Zacesta rufipes Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 73. ♂.
Taxonomy: Michener, 1936. Ent. News 47: 182, ♂ ♀.

[71] By Charles D. Michener, University of Kansas.

Subgenus AMBLYAPIS Cockerell

Amblyapis Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 362.
Type: ***Halictoides ilicifoliae*** Cockerell. Monob. and orig. desig.

ilicifoliae (Cockerell). Calif.
Halictoides ilicifoliae Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 361. ♂.

Subgenus PANURGOMIA Viereck

Panurgomia Viereck, 1909. Ent. Soc. Wash. Proc. 11: 48.
Type: ***Panurgomia fuchsi*** Viereck. Monob.

arenicola Crawford. Calif.
Hesperapis arenicola Crawford, 1917. Ent. Soc. Wash. Proc. 19: 167. ♂.

carinata carinata Stevens. N. Dak., Idaho.
Hesperapis carinata Stevens, 1919. Canad. Ent. 51: 209. ♂.
Taxonomy: Stevens, 1921. Canad. Ent. 53: 65, ♀.

carinata rodecki Cockerell. Colo.
Hesperapis carinata rodecki Cockerell, 1934. Canad. Ent. 66: 153. ♀.

eumarpha (Cockerell). Calif.
Parandrena eumarpha Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 187. ♂.
Hesperapis eumorpha Cockerell, 1902. South. Calif. Acad. Sci. Bul. 1: 70. Emend.

fuchsi (Viereck). Ariz.
Panurgomia fuchsi Viereck, 1909. Ent. Soc. Wash. Proc. 11: 49. ♀.
Taxonomy: Cockerell, 1911. Ann. Mag. Nat. Hist. (8) 8: 671.

fulvipes Crawford. Calif.
Hesperapis fulvipes Crawford, 1917. Ent. Soc. Wash. Proc. 19: 166. ♂.

larreae Cockerell. N. Mex.
Hesperapis larreae Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 535. ♂.

laticeps Crawford. Calif.
Hesperapis laticeps Crawford, 1917. Ent. Soc. Wash. Proc. 19: 166. ♂.

nitidula Cockerell. Calif.; Lower Calif.
Hesperapis nitidulus Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 45. ♂.
Taxonomy: Cockerell, 1941. San Diego Soc. Nat. Hist. Trans. 9: 348, ♀.

oliviae (Cockerell). N. Mex.
Panurgus oliviae Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 149. ♂.

parva Michener. Calif.
Hesperapis parva Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 327. ♂ ♀.

pellucida Cockerell. Calif.
Hesperapis pellucidus Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 198. ♂.

regularis (Cresson). Calif.
Panurgus regularis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 62. ♂.

rhodocerata (Cockerell). N. Mex.
Panurgus rhodoceratus Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 148. ♀ ♂.

semirudis Cockerell. Calif.
Hesperapis semirudis Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 24. ♀.

wilmattae Cockerell. Calif.
Hesperapis wilmattae Cockerell, 1933. Pan-Pacific Ent. 9: 26. ♀.
Taxonomy: Michener, 1936. Ent. News 47: 184, ♂.

Subfamily MACROPIDINAE

Genus MACROPIS Panzer

Revision: Michener, 1938. Psyche 45: 133–135.

Subgenus MACROPIS Panzer

Megilla Fabricius, 1804. Systema Piezatorum, p. 328.
Type: ***Megilla labiata*** Fabricius. Desig. by Westwood, 1840.
Macropis Panzer, 1809. Faunae Ins. German., h. 107, No. 16.
Type: ***Megilla labiata*** Fabricius. Monob.

The International Commission on Zoological Nomenclature has been requested to place *Macropis*, on the "nomina conservanda" list.

This is the only American subgenus of *Macropis*.

All visit flowers of *Steironema*.

ciliata Patton. Que., Maine, Mass., Conn., Pa., N. J., Md., Va., N. C., Mich., Wis, Ill.
Macropis ciliata Patton, 1880. Ent. Monthly Mag. 17: 31. ♀.
Eucera nuda Provancher, 1882. Nat. Canad. 13: 174. ♀.

clypeata Swenk. Nebr.
Macropis clypeata Swenk, 1907. Ent. News 18: 293. ♂.

longilinguis Provancher. Que.
Macropis longilinguis Provancher, 1888. Addit. Corr. Faune Ent. Canada, Hym., p. 424. ♀. If properly placed generically, probably a synonym of *ciliata* or *patellata*.

morsei Robertson. N. B., N. S., Ont., Maine, Mass., N. Y., Mich., Wis., Ill., N. Dak., Mont., Colo.
Macropis morsei Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 338. ♂ ♀.

patellata Patton. Conn., N. J., Pa., Md., Va., N. C., Iowa, Nebr.
Macropis patellata Patton, 1880. Ent. Monthly Mag. 17: 33. ♂.

steironematis opaca Michener. Wash.
Macropis steironematis opaca Michener, 1938. Psyche 45: 134. ♂.

steironematis steironematis Robertson. N. C., Ill., Iowa, Mo., Kans.
Macropis steironematis Robertson, 1891. Amer. Ent. Soc. Trans. 18: 63. ♀ ♂.

Family MEGACHILIDAE[72]

Subfamily LITHURGINAE

Genus LITHURGE Latreille

Subgenus LITHURGE Latreille

Lithurge Latreille, 1825. Fam. Nat. Règne Anim., p. 463.
Type: ***Andrena cornuta*** Fabricius. Monob.
Lithurgus Berthold, 1827. *In* Latreille, Nat. Fam. Thierr., p. 467. Emend.

Found in the Old World.

Subgenus LITHURGOPSIS Fox

Lithurgopsis Fox, 1902. Ent. News 13: 138.
Type: ***Lithurgus apicalis*** Cresson. Orig. desig.
Revision: Mitchell, 1938. Psyche 45: 146–155.

apicalis apicalis (Cresson). S. Dak., Nebr., Kans., Tex., Wyo., Colo., N. Mex., Ariz., Nev., east. Calif. principally from Transit. Zone. On flowers of *Opuntia*.

Lithurgus apicalis Cresson, 1875. *In* Wheeler, Rpt. Geog. Geol. Expl. and Surv. west of 100th Meridian, v. 5, p. 724. ♀.

apicalis littoralis (Cockerell). South. Tex.
Lithurgus apicalis littoralis Cockerell, 1917. *In* W. P. Cockerell, N. Y. Ent Soc. Jour. 75: 191. ♂.

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[72] By Charles D. Michener, University of Kansas, (except for genera *Dioxys* and *Coelioxys*, which are by E. Gorton Linsley).

apicalis opuntiae (Cockerell). Colo., N. Mex., Tex., Ariz., Calif., north. Mexico, principally from Sonor. Zone. On flowers of *Opuntia.*
Lithurgus apicalis var. *opuntiae* Cockerell, 1902. Ent. News 13: 182.

arizonensis (Cockerell). Ariz.
Lithurgus arizonensis Cockerell, 1937. South Calif. Acad. Sci. Bul. 36: 108. ♀.

bruesi (Mitchell). Tex. On flowers of *Opuntia.*
Lithurgus bruesi Mitchell, 1927. Psyche 34: 104. ♂.

echinocacti (Cockerell). N. Mex., Ariz. On flowers of *Echinocactus.*
Lithurgus echinocacti Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 2: 453. ♀.

gibbosus (Smith). N. C., Ga., Fla., Tex. On flowers of *Opuntia.*
Lithurgus gibbosus Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 147. ♀.
Lithurgus compressus Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 147. ♂.

Subfamily MEGACHILINAE

Tribe ANTHIDIINI

Revision: Michener, 1948. Amer. Mus. Novitates 1381: 1–29.

Genus TRACHUSA Panzer

Trachusa Panzer, 1804. Faunae Ins. German., pt. 86, nos. 14–15.
Type: (*Trachusa serratulae* Panzer) = *Apis byssina* Panzer. Desig. by Sandhouse, 1943.
Diphysis Lepeletier, 1841. Hist. Nat. Ins., Hym., v. 2, p. 307.
Type: (*Diphysis pyrenaica* Lepeletier) = *Apis byssina* Panzer. Monob.
Revision: Michener, 1941. Pan-Pacific Ent. 17: 119–125.

manni Crawford. South. Ariz., north. Mexico.
Trachusa manni Crawford, 1917. Ent. Soc. Wash. Proc. 19: 167. ♂.

perdita Cockerell. Calif.
Trachusa perdita Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 159. ♂.
Biology: Michener, 1941. Pan-Pacific Ent. 17: 123.

Genus HETERANTHIDIUM Cockerell

Heteranthidium Cockerell, 1904. Ent. News 15: 292.
Type: *Anthidium dorsale* Lepeletier. Monob. and orig. desig.
Revision: Schwarz, 1926. Amer. Mus. Novitates 218: 1–15.

bequaerti Schwarz. South. Calif.
Heteranthidium bequaerti Schwarz, 1926. Amer. Mus. Novitates 218: 6. ♀.

cordaticeps Michener. Tex.
Heteranthidium cordaticeps Michener, 1949. Kans. Ent. Soc. Jour. 22: 41. ♀.

crassipes (Cresson). N. C., Fla.
Anthidium crassipes Cresson, 1878. Amer. Ent. Soc. Trans. 7: 112. ♀.

dorsale (Lepeletier). N. J., N. C., Ga., Ala.
Anthidium dorsale Lepeletier, 1841. Hist. Nat. Ins., Hym., v. 2, p. 384. ♂.
Anthidium harbecki Crawford, 1910. Ent. News 21: 456. ♀.
Taxonomy: Cresson, 1864. Ent. Soc. Phila. Proc. 2: 381, ♂.

fontemvitae Schwarz. Fla.
Heteranthidium fontemvitae Schwarz, 1926. Amer. Mus. Novitates 218: 8. ♂ ♀.

larreae (Cockerell). N. Mex., Ariz., south. Calif., deserts.
Anthidium larreae Cockerell, 1897. Canad. Ent. 29: 220. ♀ ♂.
Biology: MacSwain, 1946. Pan-Pacific Ent. 22: 159.

occidentale (Cresson). Colo., N. Mex., Mexico.
Anthidium occidentale Cresson, 1868. Amer. Ent. Soc. Trans. 1: 386. ♀ ♂.

ridingsii (Cresson). N. C., Ga., Fla., Ala., Miss., Tex.
Anthidium ridingsii Cresson, 1878. Amer. Ent. Soc. Trans. 7: Proc. iii. ♀.

zebratum chippewaense (Graenicher). Wis.
Anthidium (*Protanthidium*) *Chippewaense* Graenicher, 1910. Canad. Ent. 42: 157. ♂ ♀.

zebratum mississippi Michener. Miss.
Heteranthidium zebratum mississippi Michener, 1937. Amer. Midland Nat. 38: 449. ♂ ♀.

zebratum subtimberlakei Schwarz, n. status. Calif.
Heteranthidium subtimberlakei Schwarz, 1928. N. Y. Ent. Soc. Jour. 36: 414. ♀.

zebratum timberlakei Schwarz, n. status. Calif.
Heteranthidium timberlakei Schwarz, 1928. N. Y. Ent. Soc. Jour. 36: 409. ♂ ♀.

zebratum zebratum (Cresson). S. Dak., Nebr., Colo., N. Mex., Tex.
Anthidium zebratum Cresson. 1872. Amer. Ent. Soc. Trans. 4: 270. ♂.
Protanthidium cockerelli Titus, 1902. Ent. News 13: 170. ♂.

Genus PARANTHIDIUM Cockerell and Cockerell

Subgenus PARANTHIDIUM Cockerell and Cockerell

Anthidium subg. *Paranthidium* Cockerell and Cockerell, 1901. Ann. Mag. Nat. Nist. (7) 7: 50.
Type: (*Anthidium perpictum* Cockerell) = *Paranthidium jugatorium perpictum* (Cockerell). Orig. desig.
Review: Schwarz, 1926. Amer. Mus. Novitates 226: 19–25.

arizonicum (Rohwer). Ariz.
Dianthidium arizonicum Rohwer, 1916. Ent. Soc. Wash. Proc. 18: 192. ♂.
Biology: Middleton, 1916. Ent. Soc. Wash. Proc. 18: 193.

jugatorium jugatorium (Say). N. Y., N. J., Ind., Minn., Wis., Mo., Nebr.
Megachile jugatoria Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 352. ♀.
Stelis obesa Say, 1837. Boston Jour. Nat. Hist. 1: 398. [♂.] N. syn.

jugatorium lepidum (Cresson). Va., N. C., Tenn., Ga.
Anthidium lepidum Cresson, 1878. Amer. Ent. Soc. Trans. 7: 115. ♂.

jugatorium perpictum (Cockerell). Colo., N. Mex., Ariz.
Anthidium perpictum Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 63. ♀.
Anthidium (*Dianthidium*) *perpictum coloradense* Swenk, 1914. Nebr. Univ., Studies 14: 32. ♀.
Taxonomy: Cockerell, 1898. N. Mex. Univ. Bul. 1: 63, ♀.—Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 413, ♂ ♀.
Biology: Banks, 1902. N. Y. Ent. Soc. Jour. 10: 213.

texanum (Cresson). Kans., Ariz., Tex.
Anthidium texanum Cresson, 1878. Amer. Ent. Soc. Trans. 7: 113. ♂.
Biology: Melander, 1902. Biol. Bul. 3: 27.

Subgenus MECANTHIDIUM Michener

Paranthidium subg. *Mecanthidium* Michener, 1942. N. Y. Ent. Soc. Jour. 50: 278.
Type: *Paranthidium* (*Mecanthidium*) *sonorum* Michener. Orig. desig.

sonorum Michener. Ariz., northern Mexico.
Paranthidium (*Mecanthidium*) *sonorum* Michener, 1942. N. Y. Ent. Soc. Jour. 50: 278. ♂ ♀.

Genus ANTHIDIUM Fabricius

Subgenus ANTHIDIUM Fabricius

Anthidium Fabricius, 1804. Systema piezatorum, p. 364.
Type: *Apis manicata* Linnaeus. Desig. by Latreille, 1810.
Revisions: Swenk, 1913. Nebr. Univ., Studies 14: 9–18 (Nebr. species).—Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 345–361 (Western species).—Schwarz, 1927. Amer. Mus. Novitates 252: 1–22; 253: 1–17.

angulatum Cockerell. Calif.
Anthidium angulatum Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 357. ♂.

aridum Cockerell. Ariz., south. Calif.
Anthidium bernardinum var. *aridum* Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 58. ♂.
Taxonomy: Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 76.—Schwarz, 1928. N. Y. Ent. Soc. Jour. 36: 372.

atripes Cresson. Nev., Calif.
Anthidium emarginatum var. *atripes* Cresson, 1879. Amer. Ent. Soc. Trans. 7: 205. ♂.
Taxonomy: Schwarz, 1928. N. Y. Ent. Soc. Jour. 36: 388, ♀.—Schwarz, 1937. N. Y. Ent. Soc. Jour. 45: 377.

atriventre astragali Swenk. Nebr., Colo.
Anthidium astragali Swenk, 1914. Nebr. Univ., Studies 14: 16. ♂ ♀.

atriventre atriventre Cresson. Wyo., Utah, B. C., Wash., Oreg., Calif.
Anthidium atriventre Cresson, 1878. Amer. Ent. Soc. Trans. 7: Proc. iii. ♀.
Anthidium hamatum Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 358. ♂. N. Syn. (Timberlake).
Anthidium spinosum Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 359. ♂. N. syn. (Timberlake).
Anthidium sculleni Schwarz, 1930. N. Y. Ent. Soc. Jour. 38: 10. ♂.

atriventre titusi Cockerell, n. status (Timberlake). Calif.
Anthidium titusi Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 58. ♂.
Anthidium fresnoense Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 347. ♀. N. syn. (Timberlake).
Anthidium lucidum Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 361. ♂. N. syn. (Timberlake).
Taxonomy: Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 73, ♂.

banningense Cockerell. Utah, Oreg., Calif.
Anthidium banningense Cockerell, 1904. South. Calif. Acad. Sci. Proc. 3: 58. ♂.
Anthidium plumarium Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 356 ♂. N. syn. (Timberlake).
Anthidium longispinum Schwarz, 1927. Amer. Mus. Novitates 253: 6. ♀.

catalinense Cockerell. Calif. (Santa Catalina Isl.).
Anthidium catalinense Cockerell, 1939. Calif. Acad. Sci. Proc. (4) 23: 433. ♂ ♀.

clementinum Cockerell. Calif. (San Clemente Isl.).
Anthidium clementinum Cockerell, 1939. South. Calif. Acad. Sci. Bul. 38: 138. ♀.
Taxonomy: Cockerell, 1941. Sixth Pacific Sci. Cong. Proc., v. 4, p. 289.

clypeodentatum clypeodentatum Swenk. Man., Nebr., Alta., B. C., east. Calif., Ariz.
Anthidium clypeodentatum Swenk, 1914. Nebr. Univ., Studies 14: 12. ♀.
Taxonomy: Schwarz, 1928. Canad. Ent. 60: 215.

clypeodentatum lutzi Schwarz. South. Calif.
Anthidium clypeodentatum var. *lutzi* Schwarz, 1928. N. Y. Ent. Soc. Jour. 36: 380. ♀ ♂.
Taxonomy: Schwarz, 1937. N. Y. Ent. Soc. Jour. 45: 380.

cockerelli Schwarz. Ariz., Calif., deserts.
Anthidium cockerelli Schwarz, 1928. N. Y. Ent. Soc. Jour. 36: 386. ♂.
Taxonomy: Cockerell, 1937. Amer. Mus. Novitates 948: 6, ♀.

collectum bilderbacki Cockerell. Calif. (Santa Barbara Isl.).
Anthidium collectum bilderbacki Cockerell, 1938. San Diego Soc. Nat. Hist. Trans. 9: 38. ♀.

collectum collectum Huard. Calif.
Anthidium compactum Provancher, 1896. Nat. Canad. 23: 9. ♂. Preocc.
Anthidium collectum Huard, 1896. Nat. Canad. 23: 124. Proposed to replace *compactum* Provancher.
Anthidium collectum var. *ultrapictum* Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 73. [♂.]
Anthidium angelarum Titus, 1906. Ent. Soc. Wash. Proc. 7: 164. ♀.
Anthidium puncticaudum Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 360. ♂. N. syn. (Timberlake).
Taxonomy: Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 57, 73.—Titus, 1906. Ent. Soc. Wash. Proc. 7: 163.
Biology: Hicks, 1929. Canad. Ent. 61: 84.

dammersi Cockerell. Calif.
Anthidium dammersi Cockerell, 1937. Amer. Mus. Novitates 948: 6. ♂ ♀.

dentipygum Swenk. Wyo., Colo.
Antidium hesperium dentipygum Swenk, 1914. Nebr. Univ., Studies 14: 19. ♀.

divisum Cockerell. Mont., Utah, Oreg., Calif.
Anthidium divisum Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 350. ♀.
Anthidium brachyurum Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 357. ♂.
?*Anthidium divisum nanulum* Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 350. ♀.
Anthidium divisum ornatifrons Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 350. ♀.
Taxonomy: Schwarz, 1930. N. Y. Ent. Soc. Jour. 38: 10.

edwardsii Cresson. Wash., Oreg., Idaho, Calif.
Anthidium edwardsii Cresson, 1878. Amer. Ent. Soc. Trans. 7: 112. ♂.
Anthidium 3-cuspidum Provancher, 1896. Nat. Canad., 23: 10. ♂.
Anthidium tricuspidum Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 57. Emend.
Anthidium hesperium Swenk, 1914. Nebr. Univ., Studies 14: 18. ♀.
Anthidium depressum Schwarz, 1927. Amer. Mus. Novitates 253: 4. ♂.
Taxonomy: Titus, 1906. Ent. Soc. Wash. Proc. 7: 163.

emarginatum (Say). Mont., Nebr., Kans., Colo., N. Mex., Ariz., ?Mo., ?Nev.
Megachile emarginata Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 352. ♀.
Anthidium atrifrons Cresson, 1868. Amer. Ent. Soc. Trans. 1: 387. ♀.
Taxonomy: Cresson, 1864. Ent. Soc. Phila. Proc. 2: 374, ♀ ♂.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 47.

flavicaudum Cockerell. Calif.
Anthidium flavicaudum Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 359. ♂.

fontis Cockerell. Calif.
Anthidium fontis Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 348. ♂ ♀.

incurvatum Swenk. Colo.
Anthidium incurvatum Swenk, 1914. Nebr. Univ., Studies 14: 22. ♂.

jocosum Cresson. Mont., Colo.
Anthidium jocosum Cresson, 1878. Amer. Ent. Soc. Trans. 7: 111. ♂.
Taxonomy: Schwarz, 1927. Amer. Mus. Novitates 277: 5, ♀.

maculifrons Smith. Va., N. C., Ga., Fla., Ill., Miss., Kans., Tex., N. Mex., Ariz. Mexico.
Anthidium maculifrons Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 214. ♀.
Anthidium cognatum Cresson, 1878. Amer. Ent. Soc. Trans. 7: 109. ♀ ♂.
Biology: Hungerford and Williams, 1912. Ent. News 23: 341.

maculosum Cresson. S. Dak., Colo., and Tex., west to Oreg. and Calif., Mexico.
Anthidium maculatum Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 216. ♂. Preocc.
Anthidium maculosum Cresson, 1878. Amer. Ent. Soc. Trans. 7: 110. ♀.
Anthidium lupinellum Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 58. ♂.
Anthidium americanum Friese, 1911. Das Tierreich, v. 28, p. 395. Proposed to replace *maculatum* Smith.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 336.—Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 412, ♂.

montivagum Cresson. Colo.
Anthidium montivagum Cresson, 1878. Amer. Ent. Soc. Trans. 7: 110. ♀ ♂.

mormonum fragariellum Cockerell. South. and cent. Calif., montane.
Anthidium bernardinum var. *fragariellum* Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 58. ♂.
Anthidium bernardinum var. *wilsoni* Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 58. ♂.
Taxonomy: Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 75, 76, ♂ ?♀.
Biology: Hicks, 1929. Ent. News 40: 105.

mormonum hicksi Schwarz. South. Calif.
Anthidium mormonum hicksi Schwarz, 1934. Amer. Mus. Novitates 743: 4. ♀.

mormonum mormonum Cresson. Utah, Colo., Nev., Calif. (Sierra Nev. Mts.).
Anthidium mormonum Cresson, 1878. Amer. Ent. Soc. Trans. 7: 110. ♂.
Anthidium blanditum Cresson, 1879. Amer. Ent. Soc. Trans. 7: 206. ♀.
Anthidium blanditum praedentatum Cockerell, 1907. Entomologist 40: 99. ♀.
Anthidium praedentatum trianguliferum Swenk, 1914. Nebr. Univ., Studies 14: 18. ♀.

nebrascense Swenk. Nebr., Wyo., Idaho, B. C., Oreg., Calif.
Anthidium nebrascense Swenk, 1914. Nebr. Univ., Studies 14: 14. ♂ ♀.
Taxonomy: Schwarz, 1927. Amer. Mus. Novitates 252: 7.—Schwarz, 1928. Canad. Ent. 60: 213.—Schwarz, 1930. N. Y. Ent. Soc. Jour. 38: 9.—Schwarz, 1940. Amer. Mus. Novitates 1058: 6.

palliventre palliventre Cresson. Utah, B. C., Oreg., Calif.
Anthidium palliventre Cresson, 1878. Amer. Ent. Soc. 7: 114. ♀.
Anthidium pallidiventre Dalla Torre, 1896. Cat. Hym., v. 10, p. 468. Emend.
Anthidium californicum Cresson, 1879. Amer. Ent. Soc. Trans. 7: 206. ♂.
Biology: Hicks, 1928. Pan-Pacific Ent. 5: 51.

palliventre vanduzeei Cockerell. Calif. (San Miguel Isl.).
Anthidium palliventre vanduzeei Cockerell, 1937. Pan-Pacific Ent. 13: 150. ♀ ♂.

palmarum Cockerell. South. and east. Calif., arid areas.
Anthidium palmarum Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 59. ♂.

paroselae Cockerell. N. Mex., Ariz.
Anthidium paroselae Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 62. ♀.
Anthidium parosetae (!) Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 302.
Taxonomy: Cockerell, 1898. N. Mex. Univ. Bul. 1: 62, ♀.—Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 412, ♀ ♂.—Schwarz, 1928. N. Y. Ent. Soc. Jour. 36: 384, ♀ ♂.
Biology: Newberry, 1900. Ent. News 9: 94.

pecosense Cockerell. Colo., N. Mex., Ariz.
Anthidium pecosense Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 58. ♂.
Anthidium poudreum (!) Cockerell, 1911. U. S. Natl. Mus. Proc. 40: 248. ♂ (♀ misdet.).
Taxonomy: Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 74, ♂.—Cockerell, 1911. U. S. Natl. Mus. Proc. 40: 248, ♂ ♀.

permaculatum niveumtarsum Schwarz. Idaho, Wyo., Utah.
Anthidium niveumtarsum Schwarz, 1927. Amer. Mus. Novitates 252: 18. ♀ ♂.

permaculatum permaculatum Cockerell. Oreg.
Anthidium permaculatum Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 349. ♀.
Taxonomy: Schwarz, 1928. N. Y. Ent. Soc. Jour. 36: 378, ♀ ♂.

placitum mesaverdense Schwarz. Colo.
Anthidium bernardinum mesaverdense Schwarz, 1927. Amer. Mus. Novitates 252: 15. ♂ ♀.

placitum placitum Cresson. Nev., Calif., mountains.
Anthidium placitum Cresson, 1879. Amer. Ent. Soc. Trans. 7: 206. ♀.
Anthidium bernardinum Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 58. ♂.
Taxonomy: Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 74, ♂.—Schwarz, 1937. N. Y. Ent. Soc. Jour. 45: 382.

polingae Schwarz. West Tex.
Anthidium polingae Schwarz, 1931. N. Y. Ent. Soc. Jour. 39: 315. ♀ ♂.

pondreum Titus. Colo.
Anthidium pondreum Titus, 1902. Ent. News 13: 169. ♂.

porterae Cockerell. Mont., Wyo., Nebr., Colo., N. Mex., Tex., B. C.
Anthidium porterae Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 411. ♂ ♀.
Anthidium porterae var. *amabile* Cockerell, 1904. Entomologist 37: 7. ♂.
Anthidium porterae personulatum Cockerell, 1907. Canad. Ent. 39: 135. ♀ ♂.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 247.—Custer and Hicks, 1927. Biol. Bul. 52: 358.—Custer, 1928. Ent. News 39: 123.

psoraleae Robertson. N. Dak., Nebr., Ill., Colo., ?NW. Ter., ?B. C., ?Calif., ?Ariz. On flowers of Leguminosae.
Anthidium psoraleae Robertson, 1902. Canad. Ent. 34: 322. ♀ ♂.
Anthidium emarginatum bilineatum Schwarz, 1927. Amer. Mus. Novitates 252: 4. ♂. N. syn. (Timberlake).
Taxonomy: Schwarz, 1928. Canad. Ent. 60: 214.

rhodophorum Cockerell. Colo.
Anthidium rhodophorum Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 623. ♀.

rodecki Schwarz. Colo.
Anthidium rodecki Schwarz, 1934. Amer. Mus. Novitates 743: 1. ♂ ♀.

rohweri Schwarz. Ariz., south. Calif., deserts.
Anthidium rohweri Schwarz, 1927. Amer. Mus. Novitates 253: 7. ♂.

sagittipictum Swenk. Wash.
Anthidium sagittipictum Swenk, 1914. Nebr. Univ., Studies 14: 20. ♀.

saxorum Cockerell. Calif.
Anthidium saxorum Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 57. ♂.
Taxonomy: Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 72, ♂.

tenuiflorae tenuiflorae Cockerell. NW. Ter., Alta., Sask., Mont., S. Dak., Wyo., Nebr., Colo., B. C., Wash., Oreg., Calif.
Anthidium tenuiflorae Cockerell, 1907. Canad. Ent. 39: 135. ♀ ♂.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 248.

tenuiflorae yukonense Cockerell. Yukon, ?Oreg.
Anthidium tenuiflorae yukonsense Cockerell, 1926. Ann. Mag. Nat. Hist. (9) 18: 622. ♂ ♀.
Taxonomy: Schwarz, 1928. N. Y. Ent. Soc. Jour. 36: 379.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 217.

transversum Swenk. Calif.
Anthidium transversum Swenk, 1914. Nebr. Univ., Studies 14: 19. ♀.

utahense Swenk. Mont., Utah, B. C., Calif.
Anthidium utahense Swenk, 1914. Nebr. Univ., Studies 14: 23. ♂ ♀.

wallisi wallisi Cockerell. B. C.
Anthidium wallisi Cockerell, 1913. Canad. Ent. 45: 13. ♀.

wallisi wallowana Schwarz. Oreg.
Anthidium wallisi var. *wallowana* Schwarz, 1940. Amer. Mus. Novitates 1058: 5. ♀.

wyomingense Schwarz. Wyo.
Anthidium wyomingense Schwarz, 1927. Amer. Mus. Novitates 252: 20. ♀.

xanthognathum Cockerell. South. Calif., arid areas.
Anthidium xanthognathum Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 347. ♀.

Genus CALLANTHIDIUM Cockerell

Callanthidium Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 365.
Type: *Anthidium illustre* Cresson. Orig. desig.

formosum (Cresson). Mont., Colo., Nev., Oreg., Calif.
Anthidium formosum Cresson, 1878. Amer. Ent. Soc. Trans. 7: 112. ♂.
Anthidium conspicuum Cresson, 1879. Amer. Ent. Soc. Trans. 7: 207. ♀.
Anthidium illustre var. *consonum* Cresson, 1879. Amer. Ent. Soc. Trans. 7: 207. ♀.
Dianthidium balli Titus, 1902. Ent. News 13: 170. ♀.
Callanthidium formosum pratense Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 366. ♂.
Taxonomy: Cockerell, 1909. Ent. News 20: 262.

illustre (Cresson). Oreg., Calif., Nev., Ariz., N. Mex.
Anthidium illustre Cresson, 1879. Amer. Ent. Soc. Trans. 7: 206. ♀.
Anthidium serranum Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 24. ♂.
Taxonomy: Cockerell, 1909. Ent. News 20: 262, ♂.—Schwarz, 1940. Amer. Mus. Novitates 1058: 3.
Biology: Johnson, 1904. Ent. News 15: 284.—Hicks, 1929. Canad. Ent. 61: 1.

Genus DIANTHIDIUM Cockerell

Anthidium subg. *Dianthidium* Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 412.
Type: (*Anthidium curvatum* Cockerell (not Smith))=*Dianthidium sayi* Cockerell. Orig. desig.
Revisions: Schwarz, 1926. Amer. Mus. Novitates 226: 1–15.—Timberlake, 1943. N. Y. Ent. Soc. Jour. 51: 71–109.

concinnum (Cresson). Kans., Colo., Tex., Ariz.
Anthidium concinnum Cresson, 1872. Amer. Ent. Soc. Trans. 4: 270. ♀ ♂.
Biology: ?Hungerford and Williams, 1912. Ent. News 23: 256.—Schwarz, 1928. N. Y. Ent. Soc. Jour. 36: 408.

cressonii (Dalla Torre). Utah, Colo.
Anthidium venustum Cresson, 1878. Amer. Ent. Soc. Trans. 7: 113. ♀. Preocc.
Anthidium cressonii Dalla Torre, 1896. Cat. Hym., v. 10, p. 458. Proposed to replace *venustum* Cresson.

curvatum curvatum (Smith). N. C. to Ga., west to Mo. and Ark.
Anthidium curvatum Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 215. ♀.

curvatum floridense Schwarz. Fla.
Dianthidum floridense Schwarz, 1926. Amer. Mus. Novitates 226: 5. ♂ ♀.

curvatum sayi Cockerell. Kans., Tex., Alta., Idaho, Utah, Ariz.
Megachile interrupta Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 350. ♂ ♀. Preocc.
Dianthidium Sayi Cockerell, 1907. Canad. Ent. 39: 136. Proposed to replace *interrupta* Say.
Biology: ?Hungerford and Williams, 1912. Ent. News 23: 256 (as *curvatum*).—Hicks, 1926. Colo. Univ., Studies 15: 249.—Hicks, 1926. Amer. Nat. 9: 199.—Custer and Hicks, 1927. Biol. Bul. 52: 268.—Custer, 1928. Ent. News 39: 123.

curvatum xerophilum Cockerell. N. Mex.
Dianthidium Sayi xerophilum Cockerell, 1907. Canad. Ent. 39: 136. ♀.

desertorum Timberlake. South. Calif., deserts.
Dianthidium desertorum Timberlake, 1943. N. Y. Ent. Soc. Jour. 51: 84. ♂ ♀.

discors Timberlake. West Tex.
Dianthidium discors Timberlake, 1948. N. Y. Ent. Soc. Jour. 56: 149.

dubium dilectum Timberlake. South. Calif. to Contra Costa County, Calif.
Dianthidium dubium dilectum Timberlake, 1948. N. Y. Ent. Soc. Jour. 56: 152.

dubium dubium Schwarz. Calif. (west. foothills of Sierra Nev. Mts.), south. Oreg.
Dianthidium dubium Schwarz, 1928. N. Y. Ent. Soc. Jour. 36: 405. ♂ ♀.

dubium mccrackenae Timberlake. Calif. (east side Sierra Nev. Mts.).
Dianthidium consimile mccrackenae Timberlake, 1943. N. Y. Ent. Soc. Jour. 51: 104. ♀ ♂.

heterulkei fraternum Timberlake. N. Mex., Ariz.
Dianthidium fraternum fraternum Timberlake, 1943. N. Y. Ent. Soc. Jour. 51: 92. ♂ ♀.

heterulkei heterulkei Schwarz. Oreg. to cent. Calif.
Dianthidium heterulkei Schwarz, 1940. Amer. Mus. Novitates 1058: 6. ♂ ♀.
Dianthidium heterulkei var. *cornucopiana* Schwarz, 1940. Amer. Mus. Novitates 1058: 8. ♂.
Dianthidium fraternum hirtulum Timberlake, 1943. N. Y. Ent. Soc. Jour. 51: 94. ♂ ♀.

implicatum Timberlake. West. Tex. and south. Calif., desert.
Dianthidium implicatum Timberlake, 1948. N. Y. Ent. Soc. Jour. 56: 150.

macswaini Timberlake. Calif.
Dianthidium macswaini Timberlake, 1943. N. Y. Ent. Soc. Jour. 51: 109. ♀.

parvum basingeri Timberlake. Ariz., south. Calif. deserts.
Dianthidium parvum basingeri Timberlake, 1943. N. Y. Ent. Soc. Jour. 51: 97. ♂.

parvum parvum (Cresson). Colo., Utah, N. Mex., north. Ariz., east. Calif.
Anthidium parvum Cresson, 1878. Amer. Ent. Soc. Trans. 7: 114. ♀ ♂.
Dianthidium parvum heteropoda Schwarz, 1934. Amer. Mus. Novitates 743: 4. ♀.

parvum schwarzi Timberlake. South. Calif.
Dianthidium parvum schwarzi Timberlake, 1943. N. Y. Ent. Soc. Jour. 51: 96. ♀ ♂.

platyurum baculifrons Cockerell. South. Calif., Lower Calif., deserts.
Dianthidium parvum baculifrons Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 365. ♀.
Dianthidium ulkei riparii Schwarz, 1928. N. Y. Ent. Soc. Jour. 36: 400. ♂ ♀.

platyurum mohavense Timberlake. Calif. (Mojave Desert).
Dianthidium platyurum mohavense Timberlake, 1943. N. Y. Ent. Soc. Jour. 51: 87. ♀.

platyurum platyurum Cockerell. Cismontane south. Calif.
Dianthidium platyurum Cockerell, 1923. Calif. Acad. Sci. Proc. (4) 12: 90. ♂ ♀.

plenum australe Timberlake. South. Calif. to Contra Costa County, Calif.
Dianthidium plenum australe Timberlake, 1943. N. Y. Ent. Soc. Jour. 51: 108. ♀.

plenum convictorum Timberlake. East. Calif.
Dianthidium plenum convictorum Timberlake, 1943. N. Y. Ent. Soc. Jour. 51: 108. ♀.

plenum plenum Timberlake. North. and cent. Calif.
Dianthidium plenum plenum Timberlake, 1943. N. Y. Ent. Soc. Jour. 51: 106. ♂ ♀.

plenum williamsi Timberlake. South. Oreg., Calif. (Sierra Nev. Mts.).
Dianthidium plenum williamsi Timberlake, 1943. N. Y. Ent. Soc. Jour. 51: 107. ♂.

pudicum consimile (Ashmead). Cent. and south. Calif.
Anthidium consimile Ashmead, 1896. Ent. News 7: 25. "♀"=♂.
Dianthidium provancheri Titus, 1906. Ent. Soc. Wash. Proc. 7: 164. ♂.
Biology: Davidson, 1896. Ent. News 7: 22.

pudicum decorum Timberlake. Alta., Mont., Idaho, Wash., Wyo., Oreg., Utah.
Dianthidium pudicum decorum Timberlake, 1934. N. Y. Ent. Soc. Jour. 51: 100. ♀ ♂.
Biology (as *pudicum*): Hicks, 1927. Psyche 34: 193.—Hicks, 1931. Canad. Ent. 63: 173.

pudicum inyoense Timberlake. Calif. (Owens Valley).
Dianthidium pudicum inyoense Timberlake, 1943. N. Y. Ent. Soc. Jour. 51: 101. ♀ ♂.

pudicum pudicum (Cresson). Wash., Calif. (Sierra Nev. Mts.), Nev.
Anthidium pudicum Cresson, 1879. Amer. Ent. Soc. Trans. 7: 208. ♂.
Anthidium pudens Cresson, 1879. Amer. Ent. Soc. Trans. 7: 208. ♀.

simile (Cresson). Ont. and Maine to N. J., west to Wis.
Anthidium simile Cresson, 1864. Ent. Soc. Phila. Proc. 2: 378. ♀ ♂.

singulare melanognathum Cockerell. Calif.
Dianthidium singulare melanognathum Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 363. ♀.

singulare perluteum T. and W. Cockerell. South. Calif. Mts.
Dianthidium singulare var. *perluteum* T. and W. Cockerell, 1904. *In* Cockerell, South. Calif. Acad. Sci. Bul. 3: 23. ♀.
Taxonomy: Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 363, ♂ ♀.
Biology: Michener, 1935. Pan-Pacific Ent. 11: 23.

singulare singulare (Cresson). Nev., north. and cent. Calif., mts.
Anthidium singulare Cresson, 1879. Amer. Ent. Soc. Trans. 7: 207. ♀.

subparvum gallatinae Schwarz. Mont.
Dianthidium semiparvum gallatinae Schwarz, 1927. Amer. Mus. Novitates 277: 6. ♂ ♀.

subparvum semiparvum Schwarz. Idaho, Utah, Oreg., northeast. Calif.
Dianthidium semiparvum Schwarz, 1926. Amer. Mus. Novitates 226: 12. ♂.

subparvum subparvum Swenk. B. C., Wash., Oreg.
Dianthidium subparvum Swenk, 1914. Nebr. Univ., Studies 14: 30. ♀ ♂.

subparvum swenki Schwarz. South. Calif.
Dianthidium parvum var. *swenki* Schwarz, 1928. N. Y. Ent. Soc. Jour. 36: 402. ♂ (♀ misdet.).

subrufulum Timberlake. Mo., Ark.
Dianthidium subrufulum Timberlake, 1943. N. Y. Ent. Soc. Jour. 51: 78. ♂ ♀.

ulkei cooleyi Schwarz. Mont.
Dianthidium ulkei cooleyi Schwarz, 1926. Amer. Mus. Novitates 277: 7. ♀.

ulkei davidsoni (Cockerell). South. Calif. Mts.
Anthidium davidsoni Cockerell, 1904. South. Calif. Acad. Sci. 3: 5. ♂.

ulkei perterritum Cockerell. N. Mex.
Dianthidium ulkei perterritum Cockerell, 1913. Ann. Mag. Nat. Hist. (8) 11: 191. ♀.

ulkei reductum Timberlake. Idaho, Wash., Oreg.
Dianthidium ulkei reductum Timberlake, 1943. N. Y. Ent. Soc. Jour. 51: 82. ♀ ♂.

ulkei ulkei (Cresson). S. Dak., Nebr., and N. Mex., west to Oreg. and cent. Calif.
Anthidium ulkei Cresson, 1878. Amer. Ent. Soc. Trans. 7: 115. ♀.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 250.—Hicks, 1933. Ent. News 44: 75.

Genus ANTHIDIELLUM Cockerell

Anthidium subg. *Anthidiellum* Cockerell, 1904. South. Calif. Acad. Sci. 3: 3.
Type: *Anthidium strigatum* Panzer. Orig. desig.
Anthidium subg. *Ceri-anthidium* Friese, 1923. Die Europ. Bienen, p. 304.
Type: *Anthidium strigatum* Panzer. Desig. by Cockerell, 1925.
Cerianthidium Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 361. Emend.
Revision: Schwarz, 1926. Amer. Mus. Novitates 226: 15–19.

ehrhorni (Cockerell). Ariz., Calif., Lower Calif., deserts and semideserts.
Anthidium (*Dianthidium*) *ehrhorni* Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 414. ♂.
Taxonomy: Schwarz, 1928. N. Y. Ent. Soc. Jour. 36: 392, ♀.

notatum boreale (Robertson). Ill., Nebr.
Dianthidium boreale Robertson, 1902. Canad. Ent. 34: 323. ♂.

notatum gilense (Cockerell). Colo., Ariz., N. Mex., Tex.
Anthidium gilense Cockerell, 1897. Canad. Ent. 29: 222. ♀.
Taxonomy: Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 413, ♂.

notatum notatum (Latreille). Mass. to N. C., west to Ill. and Miss., ?Tex., ?B. C.
Anthidium notatum Latreille, 1809. Mus. Nat. Hist. Ann. 13: 48, 231. ♂.
Taxonomy: Cresson, 1864. Ent. Soc. Phila. Proc. 2: 376, ♀ ♂.

notatum robertsoni (Cockerell). B. C., Oreg., Calif., Utah, Colo., Ariz.
Dianthidium robertsoni Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 4. ♀ ♂.
Anthidiellum robertsoni [race] *citrinellum* Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 362. ♂.
notatum rufimaculatum Schwarz. Fla.
Anthidiellum notatum var. *rufimaculatum* Schwarz, 1926. Amer. Mus. Novitates 226: 15. ♂ ♀.
Biology: Schwarz, 1928. N. Y. Ent. Soc. Jour. 36: 395.

perplexum (Smith). N. C., Fla., Ga.
Anthidium perplexum Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 214. ♀ ♂.
Taxonomy: Cresson, 1864. Ent. Soc. Phila. Proc. 2: 377, ♀ ♂.

Genus HETEROSTELIS Timberlake

Stelis subg. *Heterostelis* Timberlake, 1941. N. Y. Ent. Soc. Jour. 49: 125.
Type: *Stelis anthidiodes* Timberlake. Orig. desig.

anthidioides (Timberlake). Calif.
Stelis (*Heterostelis*) *anthidioides* Timberlake, 1941. N. Y. Ent. Soc. Jour. 49: 123. ♀.
australis (Cresson). N. J., Ga.
Stelis australis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 92. ♀.
manni (Crawford). Ariz.
Stelis manni Crawford, 1917. Ent. Soc. Wash. Proc. 19: 168. ♀.

Genus STELIS Panzer

Revision: Cockerell, 1898. Entomologist 31: 166–167.

Subgenus STELIS Panzer

Stelis Panzer, 1806. Krit. Rev. Insektenf. Deutschlands, v. 2, p. 246.
Type: (*Apis aterrima* Panzer)=*Apis punctulatissima* Kirby. Monob.
Gyrodroma Klug, 1807. Mag. Insektenk. 6: 198.
Type: (*Apis aterrima* Panzer)=*Apis punctulatissima* Kirby. Monob.
Gymnus Spinola, 1808. Insectorum Liguriae, v. 2, p. 9.
Type: (*Apis aterrima* Panzer)=*Apis punctulatissima* Kirby. Monob.
Ceraplastes Gistel, 1848. Naturgesch. Thierr. f. höh. Schul., p. x. Proposed unnecessarily to replace *Stelis*.

This subgenus does not occur in North America.

Subgenus PROTOSTELIS Friese

Stelis subg. ***Protostelis*** Friese, 1895. Die Bienen Europas v. 1, p. 25.
Type: ***Stelis freygessneri*** Friese. Desig. by Popov, 1938.

arizonensis Swenk. Ariz.
Stelis (Microstelis) arizonensis Swenk, 1915. Nebr. Univ., Studies 15: 189. ♀ ♂.

costalis Cresson. N. C., Tex.
Stelis costalis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 274. ♀ ♂.

floridana Graenicher. Fla.
Stelis floridana Greanicher, 1928. Ent. News 39: 282. ♀ ♂.

laticincta Cresson. Calif.
Stelis laticincta Cresson, 1878. Amer. Ent. Soc. Trans. 7: 92. ♀.
Taxonomy: Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 3, ♂.

louisae Cockerell. N. C., Miss., La.
Stelis louisae Cockerell, 1911. U. S. Natl. Mus. Proc. 40: 247. ♂.

perpulchra Crawford. Ariz., Calif., Lower Calif., deserts.
Stelis perpulchra Crawford, 1916. Insecutor Inscitiae Menstruus 4: 107. ♂.
Taxonomy: Cockerell, 1923. Calif. Acad. Sci. Proc. (4) 12: 89, ♀ ♂.

rudbeckiarum Cockerell. N. Mex., Ariz.
Stelis rudbeckiarum Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 3. ♂.
Stelis rudbeckiana (!) Snow, 1906. Kans. Acad. Sci. Trans. 20: 138.

Subgenus MICROSTELIS Robertson

Microstelis Robertson, 1903. Amer. Ent. Soc. Trans. 29: 170.
Type: ***Stelis lateralis*** Cresson. Orig. desig.

birkmanni Cockerell. Tex., N. C.
Stelis birkmanni Cockerell, 1909. Ann. Mag. Nat. Hist. (8) 4: 29. ♂.

coarctatus Crawford. Kans.
Stelis coarctatus Crawford, 1916. Insecutor Inscitiae Menstruus 4: 105. ♀.

crassiceps Cockerell. Colo. Host: *Hoplitis producta*.
Stelis crassiceps Cockerell, 1926. Ann. Mag. Nat. Hist. (9) 18: 625. ♂.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 246.

lateralis Cresson. Ont., Maine, Conn., N. Y., N. J., Pa., N. C., Wis., Ill., N. Dak., Nebr., Mo., Kans., Tex. Host: *Hoplitis producta*.
Stelis lateralis Cresson, 1864. Ent. Soc. Phila. Proc. 2: 410. ♀.
Heriades plenum Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 425. ♂.
Taxonomy: Robertson, 1898. Acad. Sci. St. Louis, Trans. 8: 48, ♂ ♀.
Biology: Graenicher, 1905. Wis. Nat. Hist. Soc. Bul. 3: 153 (as *sexmaculatus*).—Hicks, 1926. Colo. Univ., Studies 15: 217.—Rau, 1928. Psyche 35: 100.

maculata (Provancher). B. C.
Heriades maculatum Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 323. ♀.
Taxonomy: Titus, 1906. Ent. Soc. Wash. Proc. 7: 162.

6-maculata Ashmead. ?Mo., ?Colo., Calif. Hosts: *Hoplitis producta; H. grinnelli; H. hypocrita*.
Stelis 6-maculata Ashmead, 1896. Ent. News 7: 218. ♀.
Stelis sexmaculata Cockerell, 1898. Entomologist 31: 167. Emend.
Taxonomy: Cockerell, 1934. Amer. Mus. Novitates 732: 6, ♂.
Biology: Davidson, 1896. Ent. News 7: 218, ♀.—Davidson, 1897. South. Calif. Acad. Sci. Proc. 1: 4.—Hicks, 1926. Colo. Univ., Studies 15: 217.—Rau, 1928. Psyche 35: 100 (Colo. and Mo. records may refer to *lateralis*).

Subgenus PAVOSTELIS Sladen

Stelis subg. ***Pavostelis*** Sladen, 1916. Canad. Ent. 48: 313.
Type: ***Stelis montana*** Cresson. Monob.

anthracina Timberlake. Calif.
Stelis (Pavostelis) anthracina Timberlake, 1941. N. Y. Ent. Soc. Jour. 49: 125. ♂.

callura Cockerell. Colo., Utah.
Stelis callura Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 212. ♂.

carnifex Cockerell. Nev., Calif.
Stelis carnifex Cockerell, 1911. Ann. Mag. Nat. Hist. (8) 8: 769. ♀.

diversicolor Crawford. N. C., Tex.
Stelis diversicolor Crawford, 1916. Insecutor Inscitiae Menstruus 4: 105. ♂.

fremonti Cockerell. Oreg.
Stelis fremonti Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 213. ♀.

montana Cresson. Alta., B. C., Wyo., Oreg., Colo., Utah, Ariz.
Stelis montana Cresson, 1864. Ent. Soc. Phila. Proc. 3: 39. ♀.

seneciophila Cockerell. Colo.
Stelis seneciophila Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 2: 329. ♀.

Nomen Nudum in Stelis Panzer

Stelis foxi Smith, 1910 (1909). N. J. State Mus. Ann. Rpt., p. 695.

Genus CHELYNIA Provancher

Revision: Cockerell, 1898. Entomologist 31: 166–167.

Subgenus CHELYNIA Provancher

Chelynia Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 322. Type: *Chelynia labiata* Provancher. Monob.

calliphorina (Cockerell). Calif.
Chelynia calliphorina Cockerell, 1911. Ann. Mag. Nat. Hist. (8) 8: 769. ♀.

chlorocyanea Cockerell. Calif.
Chelynia chlorocyanea Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 208. ♀.

cusackae Cockerell. Colo.
Chelynia cusackae Cockerell, 1910. Ent. News 21: 270. ♀.

depressa (Timberlake). Calif.
Stelis (Chelynia) depressa Timberlake, 1941. N. Y. Ent. Soc. Jour. 49: 127. ♀ ♂.

elegans (Cresson). B. C., Colo., Ariz.
Stelis elegans Cresson, 1864. Ent. Soc. Phila. Proc. 2: 411. ♂ (♀ misdet.).

foederalis (Smith). N. B., Que., Maine, Conn., N. Y., N. J., N. C., Wis., Ill., Colo.
Stelis foederalis Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 275. ♀ ♂.

fragariella Cockerell. Calif.
Chelynia fragariella Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 209. ♂.

franciscana Cockerell. Calif.
Chelynia franciscana Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 207. ♀.

holocyanea Cockerell. Calif.
Chelynia holocyanea Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 209. ♀.

idahoensis (Swenk). Idaho.
Stelis (Chelynia) idahoensis Swenk, 1914. Nebr. Univ., Studies 14: 6. ♀.

interrupta (Cresson). Nev.
Stelis interrupta Cresson, 1897. Amer. Ent. Soc. Trans. 7: 205. ♀.

labiata Provancher. Ont.
Chelynia labiata Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 322. ♀ ♂.

leucotricha Cockerell. Calif. Host. *Anthidium mormonum fragariellum.*
Chelynia leucotricha Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 208. ♀ ♂.
Biology: Hicks, 1929. Ent. News 40: 108.

linsleyi (Timberlake). Calif.
Stelis (Chelynia) linsleyi Timberlake, 1941. N. Y. Ent. Soc. Jour. 49: 129. ♀.

melanotricha Cockerell. Colo.
Chelynia melanotricha Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 626. ♀.

monticola (Cresson). B. C., Idaho, Wyo., Colo. Host: *Hoplitis fulgida.*
Stelis? monticola Cresson, 1878. Amer. Ent. Soc. Trans. 7: 94. ♀.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 243.

nitida (Cresson). Canada, N. Y., Wis., N. C.
Stelis? nitida Cresson, 1878. Amer. Ent. Soc. Trans. 7: 92. ♀.

nitidula Cockerell. Calif.
Chelynia nitidula Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 210. ♂.

pavonina Cockerell. Wyo., Colo.
Chelynia pavonina Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 1: 339. ♂.
Taxonomy: Cockerell, 1922. Amer. Mus. Novitates 40: 7, ♂ ♀.

pulchra (Crawford). Nebr., Colo.
Stelis pulchra Crawford, 1902. Canad. Ent. 34: 239. ♀.

semirubra (Timberlake). Calif.
Stelis (Chelynia) semirubra Timberlake, 1941. N. Y. Ent. Soc. Jour. 49: 127. ♀.

subcaerulea (Cresson). Wyo., Nev., Calif.
Stelis? subcaerulea Cresson, 1878. Amer. Ent. Soc. Trans. 7: 93. ♂.
Taxonomy: Cockerell, 1911. Ann. Mag. Nat. Hist. (8) 8: 768, ♂ ♀.

subemarginata (Cresson). N. B., Ont., Man., Wis., N. Dak., Wyo., Idaho, Colo. Host: *Osmia simillima.*
Stelis? subemarginata Cresson, 1878. Amer. Ent. Soc. Trans. 7: 93. ♀.
Taxonomy: Swenk, 1915. Nebr. Univ., Studies 15: 191, ♂.
Biology: Graenicher, 1935. Ent. Soc. Amer. Ann. 28: 300.

subglauca Cockerell. Wash.
Chelynia subglauca Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 210. ♂.

Subgenus MELANOSTELIS Ashmead

Melanostelis Ashmead, 1898. Psyche 8: 283.
Type: (*Melanostelis betheli* Ashmead)=*Chelynia rubi* Cockerell. Monob. and orig. desig.

ricardonis Cockerell. B. C.
Chelynia ricardonis Cockerell, 1912. Canad. Ent. 44: 293. ♀.

rubi (Cockerell). Alta., Wash., Calif., Colo.
Stelis rubi Cockerell, 1898. Entomologist 31: 167. ♀.
Melanostelis betheli Ashmead, 1898. Psyche 8: 283. ♀.
Taxonomy: Swenk, 1914. Nebr. Univ. Studies 14: 8, ♀ ♂.

Subgenus STELIDIUM Robertson

Stelidium Robertson, 1902. Canad. Ent. 24: 323.
Type: *Stelidium trypetinum* Robertson. Monob. and orig. desig.

ashmeadiellae (Timberlake). Calif.
Stelis (Stelidium) ashmeadiellae Timberlake, 1941. N. Y. Ent. Soc. Jour. 49: 133. ♀ ♂.

nyssonoides (Brues). Tex.
Melanostelis nyssonoides Brues, 1903. Ent. News 14: 84. ♀.

palmarum (Timberlake). Calif.
Stelis (Stelidium) palmarum Timberlake, 1941. N. Y. Ent. Soc. Jour. 49: 134. ♀.

permaculata (Cockerell). Colo., N. Mex. Host: *Heriades ?carinatus.*
Stelis lateralis var. *permaculata* Cockerell, 1898. Entomologist 31: 167. ♂.
Biology: Hicks, 1927. Ent. News 38: 297.

robertsoni (Timberlake). Calif.
Stelis (*Stelidium*) *robertsoni* Timberlake, 1941. N. Y. Ent. Soc. Jour. 49: 136. ♀ ♂.

trypetina (Robertson). Ill., Ont.
Stelidium trypetinum Robertson, 1902. Canad. Ent. 34: 323. ♀.
Stelis (*Stelidium*) *ontariana* Sladen, 1916. Canad. Ent. 48: 312. ♀ ♂. N. syn.
Taxonomy: Cockerell, 1922. Canad. Ent. 54: 143.

Subgenus STELIDINA Timberlake

Stelis subg. *Stelidina* Timberlake, 1941. N. Y. Ent. Soc. Jour. 49: 125.
Type: *Stelis hemirhoda* Linsley. Orig. desig.
Stelidella (*!*) Timberlake, 1941. N. Y. Ent. Soc. Jour. 49: 133.
Revision: Linsley, 1939. Ent. News 50: 255.

acutiventris (Linsley). Calif.
Stelis (*Stelidium*) *acutiventris* Linsley, 1939. Ent. News 50: 252. ♀.

cockerelli (Hicks). Calif.
Herbstiella cockerelli Hicks, 1933. Amer. Mus. Novitates 616: 1. ♀.

hemirhoda (Linsley). Calif.
Stelis (*Stelidium*) *hemirhoda* Linsley, 1939. Ent. News 50: 250. ♀ ♂.

micheneri (Linsley). Calif.
Stelis (*Stelidium*) *micheneri* Linsley, 1939. Ent. News 50: 253. ♀ ♂.

nigriventris (Timberlake). Calif.
Stelis (*Stelidina*) *nigriventris* Timberlake, 1941. N. Y. Ent. Soc. Jour. 49: 132. ♀.

trichopyga (Timberlake). Calif.
Stelis (*Stelidina*) *trichopyga* Timberlake, 1941. N. Y. Ent. Soc. Jour. 49: 130. ♀.

Genus DIOXYS Lepeletier and Serville[73]

Dioxys Lepeletier and Serville, 1825. Encycl. Meth., Dict. Ins., v. 10, p. 109.
Type: *Trachusa cincta* Jurine. Monob.
Paradioxys Mocsáry, 1894. Termés. Fuzetek, v. 17, p. 35.
Type: *Dioxys pannonica* Mocsáry. Monob.
Hoplopasites Ashmead, 1898. Psyche 8: 284.
Type: *Phileremus? productus* Cresson. Monob. and orig. desig.
Chrysopheon Titus, 1901. Canad. Ent. 33: 256.
Type: *Chrysopheon aurifuscus* Titus. Monob.
Synopsis: Cockerell, 1928. Colo. Univ., Studies 16: 111.

aurifusca (Titus). Colo., Calif.
Chrysopheon aurifuscus Titus, 1901. Canad. Ent. 33: 256. ♀.
Dioxys fulvohirta Ducke, 1909. Rev. de Ent. 27: 44. ♀.

catalinensis Cockerell. South. Calif. (Catalina Is.).
Dioxys catalinensis Cockerell, 1938. Ann. Mag. Nat. Hist. (11) 2: 148. ♂.

martii Cockerell. N. Mex.
Dioxys martii Cockerell, 1902. Ann. Mag. Nat. Hist. (7) 9: 233. ♀ [=♂].

pacifica Cockerell. Calif.
Dioxys pacificus Cockerell, 1916. Ann. Mag. Nat. Hist. (8) 17: 286. ♀.

phaceliae Cockerell. N. Mex.
Dioxys phaceliae Cockerell, 1911. Amer. Ent. Soc. Trans. 37: 235. ♀.

pomonae Cockerell. Calif.
Dioxys pomonae Cockerell, 1910. Canad. Ent. 42: 169. ♂.
Taxonomy: Cockerell, 1916. Ann. Mag. Nat. Hist. (8) 17: 285, ♀.

producta (Cresson). Nev., Calif., N. Mex.
Phileremus? productus Cresson, 1879. Amer. Ent. Soc. Trans. 7: 203. ♀.

[73]By E. Gorton Linsley.

Phileremus productus var. ***subruber*** Cockerell, 1898. N. Mex. Univ. Bul. 1: 60. ♀.

Taxonomy: Ducke, 1909. Rev. de Ent. 27: 44.

rohweri Cockerell. Colo.
Dioxys rohweri Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 2: 239. ♂.

Tribe MEGACHILINI

Revision: Michener, 1941. Amer. Midland Nat. 26: 147–167 (partial generic revision).

Genus CHELOSTOMA Latreille

Chelostoma Latreille, 1809. Gen. Crust. Ins., v. 4, p. 16.
Type: (***Apis maxillosa*** Linnaeus)=***Apis florisomnis*** Linnaeus. Monob.
Gyrodroma Thomson, 1872. Hym. Scand., v. 2, p. 259. Preocc.
Type: ***Heriades nigricornis*** Nylander. Desig. by Cockerell, 1925.
Revision: Michener, 1938. Pan-Pacific Ent. 14: 36–45.

Nearctic sepcies of this genus visit flowers of Hydrophyllaceae.

bernardinum Michener. South. Calif. On flowers of *Nemophila*.
Chelostoma bernardinum Michener, 1938. Pan-Pacific Ent. 14: 40. ♀ ♂.

californicum Cresson. Calif. On flowers of *Nemophila*, *Phacelia*, and *Eriodictyon*.
Chelostoma californicum Cresson, 1878. Amer. Ent. Soc. Trans. 7: 108. ♂.
Heriades albicinctum Provancher, 1895. Nat. Canad. 22: 190. ♀ ♂.
Heriades odontura Cockerell, 1902. South. Calif. Acad. Sci. Bul. 1: 139. ♂.
Robertsonella dolichosoma Cockerell, 1922. Ann. Mag. Nat. Hist. (9) 10: 456. ♀.

minutum cockerelli Michener. South. Calif., desert margin. On flowers of *Eriodictyon*.
Chelostoma minutum cockerelli Michener, 1938. Pan-Pacific Ent. 14: 43. ♂ ♀.

minutum incisulum Michener. Calif. (Mt. Diablo).
Chelostoma minutum incisulum Michener, 1938. Pan-Pacific Ent. 14: 44. ♂.

minutum marginatum Michener. Coastal south. Calif. On flowers of *Phacelia*.
Chelostoma minutum marginatum Michener, 1938. Pan-Pacific Ent. 14: 44. ♂ ♀.

minutum minutum Crawford. Wash., Oreg., Calif. (Sierra Nev. and San Bernardino Mts.), Idaho.
Chelostoma minuta Crawford, 1916. Insecutor Inscitiae Menstruus 4: 102. ♀.

phaceliae Michener. Wash., Oreg., Calif. On flowers of *Phacelia*.
Chelostoma phaceliae Michener, 1938. Pan-Pacific Ent. 14: 38. ♂ ♀.

tetramerum Michener. North. Calif.
Chelostoma tetramerum Michener, 1942. Ent. News 53: 47. ♂.

Genus CHELOSTOMOPSIS Cockerell

Chelostomopsis Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 205.
Type: ***Chelynia rubifloris*** Cockerell. Orig. desig.
Raphidostoma Cockerell, 1936. Pan-Pacific Ent. 12: 133.
Type: (***Raphidostoma ceanothi*** Cockerell)=***Chelynia rubifloris*** Cockerell. Monob. and orig. desig.
Revision: Michener, 1938. Ent. News 49: 127.

rubifloris (Cockerell). Wash., Oreg., Calif., Ariz.
Chelynia rubifloris Cockerell, 1898. Canad. Ent. 30: 50. ♀.
Chelostoma rubifloris edwardsii Cockerell, 1916. Entomologist 49: 157. ♀.
Raphidostoma ceanothi Cockerell, 1936. Pan-Pacific Ent. 12: 134. ♂.

Genus PROCHELOSTOMA Robertson

Prochelostoma Robertson, 1903. Amer. Ent. Soc. Trans. 29: 167.
Type: *Heriades philadelphi* Robertson. Monob. and orig. desig.
Revision: Michener, 1938. Ent. News 69: 131.

philadelphi (Robertson). N. Y. to Ga., west to Mich. and Ill.
Heriades philadelphi Robertson, 1891. Amer. Ent. Soc. Trans. 18: 64. ♀ ♂.

Genus HERIADES Spinola

Revision: Michener, 1938. Ent. Soc. Amer. Ann. 31: 514–531.

Subgenus HERIADES Spinola

Heriades Spinola, 1808. Insectorum Liguriae, v. 2, p. 7.
Type: *Apis truncorum* Linnaeus. Desig. by Latreille, 1810.
Trypetes Schenck, 1859. Nassau. Ver. f. Naturk. Jahrb. 14: 32. Preocc.
Type: *Apis truncorum* Linnaeus. Monob.

This subgenus is not found in America.

Subgenus NEOTRYPETES Robertson

Neotrypetes Robertson, 1918. Ent. News 29: 92.
Type: (*Trypetes productus* Robertson)=*Megachile variolosa* Cresson. Monob. and orig. desig.

crucifera Cockerell. N. Mex., Ariz.
Heriades crucifera Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 20: 137. ♂.

leavitti crawfordi Graenicher. Fla.
Heriades crawfordi Graenicher, 1928. Ent. News 39: 281. ♀ ♂.

leavitti leavitti Crawford. N. B., N. Y., La., Tex.
Heriades leavitti Crawford, 1913. Canad. Ent. 45: 270. ♂.

micheneri Timberlake. Ariz.
Heriades (*Neotrypetes*) *micheneri* Timberlake, 1947. Pan-Pacific Ent. 23: 26. ♂ ♀.

texana Michener. Tex., Ariz.
Heriades texana Michener, 1938. Ent. Soc. Amer. Ann. 31: 517. ♀.

variolosa purpurascens Cockerell. South. Tex. to Yucatan.
Heriades carinata purpurascens Cockerell, 1931. Ann. Mag. Nat. Hist. (10) 8: 543. ♀.
Taxonomy: Michener, 1949. Kans. Ent. Soc. Jour. 22: 43.

variolosa variolosa (Cresson). Ont. to N. C., west to B. C., Oreg., Colo., and Tex.
Megachile variolosa Cresson, 1872. Amer. Ent. Soc. Trans. 4: 270. ♀.
Heriades odontophora Schletterer, 1889. Zool. Jahrb., Abt. f. System., Geog. u. Biol. Tiere 4: 679. ♀.
Heriades asteris Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 20: 135. ♂.
Trypetes barbatus Robertson, 1903. Amer. Ent. Soc. Trans. 29: 171. ♂ (♀ misdet.).
Trypetes productus Robertson, 1905. Canad. Ent. 37: 236. ♂.

Subgenus PHYSOSTETHA Michener

Heriades subg. *Physostetha* Michener, 1938. Ent. Soc. Amer. Ann. 31: 523.
Type: *Heriades carinata* Cresson. Orig. desig.

carinata Cresson. Que. to Ga., west to B. C., Oreg., Utah, N. Mex., and Tex.
Heriades carinatum Cresson, 1864. Ent. Soc. Phila. Proc. 2: 383. ♀ ♂.
Heriades glomerans Schletterer, 1889. Zool. Jahrb., Abt. f. System., Geog. u. Biol. Tiere 4: 681. ♀.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24 (7): 1.

cressoni Michener. Wyo. to N. Mex., west to B. C. and Calif.
Heriades (*Physostetha*) *cressoni* Michener, 1938. Ent. Soc. Amer. Ann. 31: 529. ♀ ♂.

gracilior Cockerell. Colo., N. Mex., Ariz.
Heriades gracilior Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 20: 138. ♂ ♀.

occidentalis Michener. Oreg., Calif.
Heriades (Physostetha) occidentalis Michener, 1938. Ent. Soc. Amer. Ann. 31: 525. ♀ ♂.

timberlakei Michener. Ariz., N. Mex.
Heriades (Physostetha) timberlakei Michener, 1938. Ent. Soc. Amer. Ann. 31: 527. ♂ ♀.

Genus ASHMEADIELLA Cockerell

Revisions: Michener, 1936. Amer. Mus. Novitates 875: 1–16.—Michener, 1939. Amer. Midland Nat. 22: 1–84.

Subgenus ASHMEADIELLA Cockerell

Ashmeadiella Cockerell, 1897. Ent. News 8: 197.
Type: *Heriades opuntiae* Cockerell. Orig. desig.

altadenae Michener. South. and cent. Calif.
Ashmeadiella altadenae Michener, 1936. Pan-Pacific Ent. 12: 63. ♂.

arizonensis Michener. Ariz.
Ashmeadiella arizonensis Michener, 1936. Amer. Mus. Novitates 875: 3. ♂.

bigeloviae (Cockerell). Tex., N. Mex., Ariz., south. and east. Calif., deserts.
Heriades bigeloviae Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 20: 136. ♂ ♀.

bucconis bucconis (Say). Wis., Ind., and La. to N. Dak., Kans., and Tex. On flowers of Astereae; Heliantheae.
Osmia bucconis Say, 1837. Boston Jour. Nat. Hist. 1: 400. ♀ ♂.
Megachile osmioides Cresson, 1872. Amer. Ent. Soc. Trans. 4: 269. ♀ ♂.

bucconis denticulata (Cresson). Mont., Colo., and west. Tex. to B. C. and Calif.
Heriades ? denticulatum Cresson, 1878. Amer. Ent. Soc. Trans. 7: 108. ♂.
Heriades ? rotundiceps Cresson, 1879. Amer. Ent. Soc. Trans. 7: 205. ♀.
Ashmeadiella wislizeni Cockerell, 1922. Ann. Mag. Nat. Hist. (9) 10: 545. ♂.

cactorum basalis Michener. South. and cent. Calif., west of deserts, also isolated localities in east. Calif.
Ashmeadiella basalis basalis Michener, 1936. Amer. Mus. Novitates 875: 6. ♂ ♀.

cactorum cactorum (Cockerell). B. C., Wash., Oreg., north. and east. Calif., Utah, Colo., N. Mex., north. Mexico.
Heriades cactorum Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 20: 140. ♀.
Ashmeadiella curriei Titus, 1904. Ent. Soc. Wash. Proc. 6: 100. ♀.
Ashmeadiella basalis nigra Michener, 1936. Amer. Mus. Novitates 875: 7. ♀ ♂.

cactorum echinocerei Cockerell. Ariz., north. Mexico.
Ashmeadiella echinocerei Cockerell, 1911. Canad. Ent. 43: 132. ♀.
Ashmeadiella echinocacti (!) Cockerell, 1931. Ann. Mag. Nat. Hist. (8) 10: 543.

californica californica (Ashmead). Utah, B. C., Wash., Oreg., Calif. (except deserts and Sierra Nevada), Lower Calif.
Chalicodoma californica Ashmead, 1897. South. Calif. Acad. Sci. Proc. 1 (3): 1. ♂ ♀.
Ashmeadiella coquilletti Titus, 1904. Ent. Soc. Wash. Proc. 6: 99. ♀ ♂.

californica florissantensis Michener. Wyo., Colo., N. Mex.
Ashmeadiella florissantensis Michener, 1936. Pan-Pacific Ent. 12: 62. ♂ ♀.

californica sierraensis Michener. Sierra Nevada, Calif.
Ashmeadiella (Ashmeadiella) californica sierraensis Michener, 1939. Amer. Midland Nat. 22: 51. ♀ ♂.

cockerelli Michener. South. Calif.
Ashmeadiella cockerelli Michener, 1936. Pan-Pacific Ent. 12: 62. ♂.

difugita Michener. South. and cent. Calif., mountains.
Ashmeadiella (*Ashmeadiella*) *difugita* Michener, 1939. Amer. Midland Nat. 22: 41. ♀ ♂.

dimalla Michener. Ariz.
Ashmeadiella (*Ashmeadiella*) *dimalla* Michener, 1939. Amer. Midland Nat. 22: 45. ♀ ♂.

femorata (Michener). South. and east. Calif., Ariz., deserts.
Osmia femorata Michener, 1936. South. Calif. Acad. Sci. Bul. 35: 91. ♀.

floridana (Robertson). N. C., Fla.
Heriades floridanus Robertson, 1897. Acad. Sci. St. Louis Trans. 7: 348. ♀.

foveata Michener. Cent. and east. Calif.
Ashmeadiella (*Ashmeadiella*) *foveata* Michener, 1939. Amer. Midland Nat. 22: 39. ♀.

gillettei gillettei Titus. Colo., N. Dak.
Ashmeadiella gillettei Titus, 1904. Ent. Soc. Wash. Proc. 6: 100. ♀.
Ashmeadiella coloradensis Cockerell, 1934. Amer. Mus. Novitates 732: 4. ♂.

gillettei rufiventris Michener. South. and east. Calif., deserts.
Ashmeadiella (*Ashmeadiella*) *rufiventris* Michener, 1939. Amer. Midland Nat. 22: 32. ♀ ♂.

haematopoda Cockerell. South. and east. Calif., north. Mexico, deserts.
Ashmeadiella haematopoda Cockerell, 1924. Calif. Acad. Sci. Proc. (4) 12: 555. ♀.
Taxonomy: Michener, 1936. Pan-Pacific Ent. 12: 58, ♀ ♂.

leucozona Cockerell. South. Calif., north. Mexico, deserts.
Ashmeadiella leucozona Cockerell, 1924. Calif. Acad. Sci. Proc. (4) 12: 556. ♂ ♀.

maxima Michener. Tex.
Ashmeadiella maxima Michener, 1936. Pan-Pacific Ent. 12: 61. ♀ ♂.

meliloti aridula Cockerell. Wash., Idaho, Colo., Calif., Oreg.
Ashmeadiella aridula Cockerell 1910. Entomologist 43: 91. ♂.

meliloti astragali Michener. Nev., east. Calif.
Ashmeadiella (*Ashmeadiella*) *cactorum astragali* Michener, 1939. Amer. Midland Nat. 22: 44. ♀ ♂.

meliloti meliloti (Cockerell). South. Calif., Ariz., N. Mex., Tex., north. Mexico, deserts.
Heriades meliloti Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 20: 141. ♂ ♀.

occipitalis Michener. South. Ariz., west. Tex.
Ashmeadiella (*Ashmeadiella*) *occipitalis* Michener, 1939. Amer. Midland Nat. 22: 22. ♀ ♂.

opuntiae (Cockerell). South. Calif., Ariz., N. Mex., Tex., north. Mexico, Colo. On flowers of *Opuntia*.
Heriades opuntiae Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 20: 139. ♀.
Ashmeadiella submaxima Michener, 1936. Amer. Mus. Novitates 875: 3. ♂.
Taxonomy: Michener, 1943. Pan-Pacific Ent. 19: 97.

prosopidis (Cockerell). South. Calif., Ariz., N. Mex., north. Mexico, deserts.
Heriades prosopidis Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 20: 140. ♀ (♂ misdet.).
Ashmeadiella subangusta Cockerell, 1924. Calif. Acad. Sci. Proc. (4) 12: 588. ♀.

rufipes Titus. South. Calif.
Ashmeadiella rufipes Titus, 1904. Ent. Soc. Wash. Proc. 6: 99. ♀.

rufitarsis Michener. South. and cent. Calif.
Ashmeadiella (*Ashmeadiella*) *rufitarsis* Michener, 1939. Amer. Midland Nat. 22: 37. ♀ ♂.

schwarzi Titus. Ariz.
Ashmeadiella schwarzi Titus, 1904. Ent. Soc. Wash. Proc. 6: 98. ♀ ♂.

sonora Michener. South. Calif., north. Mexico, deserts.
Ashmeadiella (*Ashmeadiella*) *sonora* Michener, 1939. Amer. Midland Nat. 22: 35. ♂ ♀.

stevensi Michener. N. Dak.
Ashmeadiella stevensi Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 405. ♀.

titusi Michener. South. Calif.
Ashmeadiella (*Ashmeadiella*) *titusi* Michener, 1939. Amer. Midland Nat. 22: 25. ♀ ♂.

vandykiella Michener. Tex.
Ashmeadiella (*Ashmeadiella*) *vandykiella* Michener, 1949. Kans. Ent. Soc. Jour. 22: 46. ♀ ♂.

Subgenus TITUSELLA Cockerell

Titusella Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 445.
Type: *Titusella pronitens* Cockerell. Monob.

biscopula Michener. Ariz., N. Mex.
Ashmeadiella (*Titusella*) *biscopula* Michener, 1935. Amer. Midland Nat. 22: 54. ♀.

cubiceps clypeata (Michener). Calif., low and middle altitudes.
Titusella clypeata Michener, 1936. South. Calif. Acad. Sci. Bul. 35: 93. ♀.

cubiceps cubiceps (Cresson). Nev., Calif., Oreg., high mts.
Heriades ? *cubiceps* Cresson, 1879. Amer. Ent. Soc. Trans. 7: 205. ♀.

pronitens (Cockerell). Colo.
Titusella pronitens Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 446. ♀.

Subgenus AROGOCHILA Michener

Ashmeadiella subg. *Arogochila* Michener, 1939. Amer. Midland Nat. 22: 58.
Type: *Ashmeadiella timberlakei* Michener. Orig. desig.

australis (Cockerell). South. and cent. Calif., mts. On flowers of *Pentstemon*.
Chelostoma australis Cockerell, 1902. South. Calif. Acad. Sci. Bul. 1: 139. ♀.
Chelostomopsis australis nanus Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 206. ♀.

barberi Michener. Ariz.
Ashmeadiella (*Arogochila*) *barberi* Michener, 1939. Amer. Midland Nat. 22: 61. ♀.

cazieri Michener. South. and east. Calif., Ariz., deserts.
Ashmeadiella (*Arogochila*) *cazieri* Michener, 1939. Amer. Midland Nat. 22: 72. ♀ ♂.

clypeodentata Michener. South. Calif., north. Mexico, deserts.
Ashmeadiella clypeodentata Michener, 1936. Pan-Pacific Ent. 12: 57. ♀.

erema Michener. East. Calif., deserts.
Ashmeadiella (*Arogochila*) *erema* Michener, 1939. Amer. Midland Nat. 22: 65. ♀.

eurynorhyncha Michener. East. Calif., desert.
Ashmeadiella (*Arogochila*) *eurynorhyncha* Michener, 1939. Amer. Midland Nat. 22: 62. ♀ ♂.

foxiella Michener. Wash., Oreg., cent. Calif., Idaho.
Ashmeadiella (*Arogochila*) *foxiella* Michener, 1939. Amer. Midland Nat. 22: 73. ♂.
Ashmeadiella (*Chilosima*) *Washingtonensis* Michener, 1939. Amer. Midland Nat. 22: 80. ♀.

lateralis Michener. South. Calif.
Ashmeadiella lateralis Michener, 1936. Pan-Pacific Ent. 12: 60. ♂.

leachi Michener. Calif.
Ashmeadiella (*Arogochila*) *leachi* Michener, 1949. Kans. Ent. Soc. Jour. 22: 43. ♀.

lutzi (Cockerell). Colo.
Chelostomopsis lutzi Cockerell, 1930. Amer. Mus. Novitates 397: 2. ♀.

neomexicana (Cockerell). N. Mex.
Chelostoma Neomexicanum Cockerell, 1904. Canad. Ent. 36: 13. ♀.

salviae Michener. South. and cent. Calif. On flowers of *Salvia mellifera.*
Ashmeadiella (*Arogochila*) *salviae* Michener, 1939. Amer. Midland Nat. 22: 69. ♀ ♂.

sculleni Michener. Oreg.
Ashmeadiella (*Arogochila*) *sculleni* Michener, 1939. Amer. Midland Nat. 22: 60. ♀.

stenognatha Michener. East. Calif.
Ashmeadiella (*Arogochila*) *stenognatha* Michener, 1939. Amer. Midland Nat. 22: 63. ♀.

timberlakei solida Michener. East. Calif.
Ashmeadiella (*Arogochila*) *timberlakei solida* Michener, 1939. Amer. Midland Nat. 22: 68. ♂ ♀.

timberlakei timberlakei Michener. Oreg., Calif. (mts. and west of mts.). On flowers of *Lotus.*
Ashmeadiella timberlakei Michener, 1936. Pan-Pacific Ent. 12: 56. ♀ ♂.

Subgenus CORYTHOCHILA Michener

Ashmeadiella subg. *Corythochila* Michener, 1939. Amer. Midland Nat. 22: 74.
Type: *Ashmeadiella inyoensis* Michener. Orig. desig.

breviceps Michener. South. Calif., Ariz., Nev., deserts.
Ashmeadiella (*Corythochila*) *breviceps* Michener, 1939. Amer. Midland Nat. 22: 77. ♀ ♂.

inyoensis Michener. East. Calif., deserts.
Ashmeadiella (*Corythochila*) *inyoensis* Michener, 1939. Amer. Midland Nat. 22: 75. ♀ ♂.

Subgenus CHILOSIMA Michener

Ashmeadiella subg. *Chilosima* Michener, 1939. Amer. Midland Nat. 22: 78.
Type: *Ashmeadiella rhodognatha* Cockerell. Orig. desig.

holtii Cockerell. N. Mex., Ariz., deserts.
Ashmeadiella holtii Cockerell, 1898. Canad. Ent. 30: 51. ♂.

rhodognatha Cockerell. South. and east. Calif., north. Mexico, deserts.
Ashmeadiella rhodognatha Cockerell, 1924. Calif. Acad. Sci. Proc. (4) 12: 557. ♀.
Taxonomy: Michener, 1942. Ent. News 53: 51.—Michener, 1943. Pan-Pacific Ent. 19: 96.

Subgenus CUBITOGNATHA Michener

Ashmeadiella subg. *Cubitognatha* Michener, 1939. Amer. Midland Nat. 22: 81.
Type: *Ashmeadiella xenomastax* Michener. Orig. desig. and monob.

xenomastax Michener. South. and east. Calif., Nev., deserts.
Ashmeadiella (*Cubitognatha*) *xenomastax* Michener, 1939. Amer. Midland Nat. 22: 81. ♀.
Taxonomy: Michener, 1942. Ent. News 53: 51. ♂.

Genus FORMICAPIS Sladen

Formicapis Sladen, 1916. Canad. Ent. 48: 271.
Type: *Formicapis clypeata* Sladen. Monob.
Revision: Michener, 1938. Ent. News 49: 129.

clypeata Sladen. Alaska, B. C., Alta., Sask., Colo., N.W.T., Mont., Oreg.
Formicapis clypeata Sladen, 1916. Canad. Ent. 48: 271. ♀.

Genus ROBERTSONELLA Titus

Robertsonella Titus, 1904. N. Y. Ent. Soc. Jour. 12: 22.
Type: (***Robertsonella gleasoni*** Titus)=***Heriades simplex*** Cresson. Monob. and orig. desig.
Revision: Michener, 1938. Ent. News 49: 130.

simplex crataegina Cockerell. Tex.
Robertsonella crataegina Cockerell, 1909. Ann. Mag. Nat. Hist. (8) 4: 28. ♂.

simplex simplex (Cresson). Mass., Md., Va., N. C., Tenn., Ill.
Heriades simplex Cresson, 1864. Ent. Soc. Phila. Proc. 2: 384. ♀.
Robertsonella gleasoni Titus, 1904. N. Y. Ent. Soc. Jour. 12: 23. ♀ ♂.

Genus HOPLITIS Klug

Revision: Michener, 1947. Amer. Mus. Nat. Hist. Bul. 89: 261–317 (with references to biological works).

Subgenus HOPLITIS Klug

Hoplitis Klug, 1807. Mag. Insektenk. 6: 225.
Type: ***Apis adunca*** Panzer. Monob.
Osmia subg. ***Ctenosmia*** Thomson, 1872. Hym. Scand., v. 2, p. 233.
Type: ***Apis adunca*** Panzer. Desig. by Michener, 1941.

This subgenus is not found in America.

Subgenus HOPLITINA Cockerell

Hoplitella Cockerell, 1910. Canad. Ent. 42: 169. Preocc.
Type: (***Hoplitella pentamera*** Cockerell)=***Ashmeadiella howardi*** Cockerell. Monob.
Hoplitina Cockerell, 1913. Canad. Ent. 45: 34. Proposed to replace *Hoplitella* Cockerell.

bullifacies Michener. East. Calif., desert.
Hoplitis (Hoplitina) bullifacies Michener, 1947. Amer. Mus. Nat. Hist. Bul. 89: 274. ♀ ♂.

bunocephala Michener. Cent. Calif. On flowers of *Lotus*.
Hoplitis (Hoplitina) bunocephala Michener, 1947. Amer. Mus. Nat. Hist. Bul. 89: 276. ♀ ♂.

howardi (Cockerell). South. and cent. Calif. Largely on flowers of *Lotus*.
Ashmeadiella howardi Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 22. ♀ (♂ misdet.).
Hoplitella pentamera Cockerell, 1910. Canad. Ent. 42: 169. ♂.
Hoplitina hesperia Crawford, 1916. Insecutor Inscitiae Menstruus 4: 103. ♀.

linsdalei Michener. Cent. Calif.
Hoplitis (Hoplitina) linsdalei Michener, 1947. Amer. Mus. Nat. Hist. Bul. 89: 277. ♂.

mojavensis Michener. Calif. (Mojave and east. deserts).
Hoplitis (Hoplitina) mojavensis Michener, 1947. Amer. Mus. Nat. Hist. Bul. 89: 275. ♀.

Subgenus ALCIDAMEA Cresson

Alcidamea Cresson, 1864. Ent. Soc. Phila. Proc. 2: 385.
Type: ***Alcidamea producta*** Cresson. Desig. by Michener, 1941.
Autochelostoma Sladen, 1916. Canad. Ent. 48: 270.
Type: (***Autochelostoma canadensis*** Sladen)=***Alcidamea producta*** Cresson. Monob.

brachyodonta (Cockerell). South. Calif.
Alcidamea brachyodonta Cockerell, 1933. Ent. News 44: 205. ♂.

colei (Crawford). South. Nev., south. Calif.
Alcidamea colei Crawford, 1916. Ent. Soc. Wash. Proc. 18: 127. ♂.

elongaticeps Michener. Calif. (Mojave and east. deserts).
Hoplitis (Alcidamea) elongaticeps Michener, 1947. Amer. Mus. Nat. Hist. Bul. 89: 290. ♀ ♂.

grinnelli grinnelli (Cockerell). Ariz., Calif., north. Mexico.
Hoplitis grinnelli Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 22. ♀.

grinnelli septentrionalis Michener. B. C., Wash., Oreg.
Hoplitis grinnelli septentrionalis Michener, 1947. Amer. Mus. Nat. Hist. Bul. 89: 291. ♂ ♀.

pilosifrons (Cresson). Que. and Mass. to Fla., west to Alta., Colo., and Tex.
Alcidamea pilosifrons Cresson, 1864. Ent. Soc. Phila. Proc. 2: 386. ♂.
Hoplitis graceae Cockerell, 1923. Ann. Mag. Nat. Hist. (9) 11: 263. ♀.
Alcidamea mucronata Cockerell, 1934. Brooklyn Ent. Soc. Bul. 29: 18. ♂.

producta bernardina Michener. South. Calif. Mts. (overlapping range of *gracilis*).
Hoplitis producta bernardina Michener, 1947. Amer. Mus. Nat. Hist. Bul. 89: 287. ♂ ♀.

producta gracilis (Michener). Oreg., Calif.
Osmia gracilis Michener, 1935. Pan-Pacific Ent. 11: 183. ♀.

producta interior Michener. Alta., Colo., Utah, N. Mex., Ariz. (west of plains).
Hoplitis producta interior Michener, 1947. Amer. Mus. Nat. Hist. Bul. 89: 286. ♂ ♀.

producta panamintana Michener. Calif. (Panamint and nearby mts.).
Hoplitis producta panamintana Michener, 1947. Amer. Mus. Nat. Hist. Bul. 89: 287. ♂.

producta producta (Cresson). Que. to Ga., west to Alta., Colo., and Tex.
Alcidamea producta Cresson, 1864. Ent. Soc. Phila. Proc. 2: 386. ♂.
Autochelostoma canadensis Sladen, 1916. Canad. Ent. 48: 270. "♂" = intersex.
Alcidamea helenae Cockerell, 1934. Amer. Mus. Novitates 732: 6. ♂.

producta subgracilis Michener. B. C., Wash., Oreg., Idaho.
Hoplitis producta subgracilis Michener, 1947. Amer. Mus. Nat. Hist. Bul. 89: 286. ♂ ♀.

sambuci Titus. B. C. and Idaho to Calif.
Hoplitis sambuci Titus, 1904. Ent. Soc. Wash. Proc. 6: 101. ♀ ♂.

truncata mescalerium Cockerell. Colo., N. Mex.
Hoplitis mescalerium Cockerell, 1910. Entomologist 43: 90. ♀.

truncata truncata (Cresson). Que. and Maine to Fla., west to Ill., Miss., N. Dak., Colo.
Alcidamea truncata Cresson, 1878. Amer. Ent. Soc. Trans. 7: 108. ♂.

uvulalis (Cockerell). Utah, Oreg., Calif.
Alcidamea uvulalis Cockerell, 1902. South. Calif. Acad. Sci. Bul. 1: 139. ♂.

Subgenus CYRTOSMIA Michener

Hoplitis subg. *Cyrtosmia* Michener, 1947. Amer. Mus. Nat. Hist. Bul. 89: 292. Type: *Osmia hypocrita* Cockerell. Orig. desig. and monob.

hypocrita (Cockerell). Colo., B. C., Calif.
Osmia hypocrita Cockerell, 1906. Canad. Ent. 38: 160. ♀.

Subgenus DASYOSMIA Michener

Hoplitis subg. *Dasyosmia* Michener, 1947. Amer. Mus. Nat. Hist. Bul. 89: 294. Type: *Alcidamea biscutellae* Cockerell. Orig. desig.

biscutellae (Cockerell). N. Mex., Ariz., Calif., deserts.
Alcidamea biscutellae Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 400. ♂.

paroselae Michener. East. Calif., desert. On flowers of *Parosela*.
Hoplitis (Dasyosmia) paroselae Michener, 1947. Amer. Mus. Nat. Hist. Bul. 89: 296. ♂ ♀.

Subgenus ACROSMIA Michener

Hoplitis subg. *Acrosmia* Michener, 1947. Amer. Mus. Nat. Hist. Bul. 89: 298.
Type: *Hoplitis plagiostoma* Michener. Orig. desig.

perissocera Michener. Calif. (Sierra Nev.).
Hoplitis (*Acrosmia*) *perissocera* Michener, 1947. Amer. Mus. Nat. Hist. Bul. 89: 299. ♂.

plagiostoma Michener. Calif. (Sierra Nev.).
Hoplitis (*Acrosmia*) *plagiostoma* Michener, 1947. Amer. Mus. Nat. Hist. Bul. 89: 298. ♂.

Subgenus MONUMETHA Cresson

Monumetha Cresson, 1864. Ent. Soc. Phila. Proc. 2: 387.
Type: (*Monumetha argentifrons* Cresson) = *Chelostoma albifrons* Kirby. Desig. by Titus, 1904.

albifrons albifrons (Kirby). N. S., N. Y. to Wis., north to N. W. T. and Alaska.
Chelostoma albifrons Kirby, 1837. *In* Richardson, Fauna Bor.-Amer., v. 4, p. 270. ♂.
Monumetha borealis Cresson, 1864. Ent. Soc. Phila. Proc. 2: 388. ♀.
Monumetha obsoleta Cresson, 1864. Ent. Soc. Phila. Proc. 2: 388. ♂.
Megachile oblonga Provancher, 1882. Nat. Canad. 13: 230. ♀.
Taxonomy: Michener, 1947. Evolution, v. 1, p. 172.

albifrons argentifrons (Cresson). Alta. south to N. Mex. and Ariz., west to B. C. and Oreg., thence south along Sierra Nev. in Calif.
Monumetha argentifrons Cresson, 1864. Ent. Soc. Phila. Proc. 2: 387. ♂.

albifrons maura (Cresson). Southwest. Oreg., Calif. (west of Sierra Nev.).
Osmia maura Cresson, 1878. Amer. Ent. Soc. Trans. 7: 104. ♀.
Andronicus hesperius Cockerell, 1903. South. Calif. Acad. Sci. Bul. 2: 35. ♂.

Subgenus CHLOROSMIA Sladen

Chlorosmia Sladen, 1916. Canad. Ent. 48: 270.
Type: *Osmia fulgida* Cresson. Monob.
Key: Michener, 1936. Amer. Mus. Novitates 875: 29.

fulgida fulgida (Cresson). Alaska, Yukon, Alta., Oreg., Utah, N. Mex.
Osmia fulgida Cresson, 1864. Ent. Soc. Phila. Proc. 3: 34. ♀.
Osmia viridis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 35. ♀.

fulgida platyura (Cockerell). South. Oreg., Calif.
Osmia platyura Cockerell, 1911. Ann. Mag. Nat. Hist. (8) 8: 765. ♂ ♀.
Osmia lawae Michener, 1936. Amer. Mus. Novitates 875: 29. ♂ ♀.

louisae (Cockerell). B. C., Wash., Oreg., Idaho, north. Calif.
Osmia louisae Cockerell, 1934. Amer. Mus. Novitates 679: 14. ♀.

viridimicans (Cockerell). Wash., west. Oreg.
Osmia viridimicans Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 334. ♀.

Subgenus ANDRONICUS Cresson

Andronicus Cresson, 1864. Ent. Soc. Phila. Proc. 2: 384.
Type: *Andronicus cylindricus* Cresson. Monob.

cylindrica (Cresson). Que. and N. S. to N. C., west to N. W. T., B. C., Colo., Tex.
Andronicus cylindricus Cresson, 1864. Ent. Soc. Phila. Proc. 2: 384. ♂.
Osmia spoliata Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 327. ♀.
Hopilitis monardae Cockerell, '1914. Ann. Mag. Nat. Hist. (8) 14: 363. ♀.
Hoplitis hicksi Cockerell, 1932. Brooklyn Ent. Soc. Bul. 27: 203. ♀.

Species of Uncertain Position

alboscopata (Provancher.) Que.
Heriades alboscopatum Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 425. ♀.
Taxonomy: Titus, 1906. Ent. Soc. Wash. Proc. 7: 160.

imperfecta (Provancher). Calif.
Monumetha imperfecta Provancher, 1896. Nat. Canad. 23: 9. ♀. Perhaps a *Megachile*.

Genus PROTERIADES Titus

Proteriades Titus, 1904. N. Y. Ent. Soc. Jour. 12: 25.
Type: *Heriades semirubra* Cockerell. Monob.
Chelostoma subg. *Cephalapis* Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 23.
Type: *Chelostoma (Cephalapis) jacintinum* Cockerell. Monob. and orig. desig.
Revision: Timberlake and Michener, 1950. Kansas Univ. Sci. Bul. 33: 387–440, n. spp.

All visit flowers of *Cryptantha*.

evansi Michener. Calif. (Sierra Nev.).
Proteriades evansi Michener, 1936. South. Calif. Acad. Sci. Bul. 35: 92. ♀.

incanescens (Cockerell). Ariz.
Hoplitina incanescens Cockerell, 1922. Amer. Mus. Novitates 40: 7. ♀.

jacintana (Cockerell). Calif.
Chelostoma jacintanum Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 23. ♂.

remotula (Cockerell). Calif.
Osmia remotula Cockerell, 1910. Canad. Ent. 42: 170. ♀.

semirubra (Cockerell).
Heriades semirubra Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 198. ♂.

tristis Michener. South. Calif.
Proteriades tristis Michener, 1936. South. Calif. Acad. Sci. Bul. 35: 92. ♀.

Genus ANTHOCOPA Lepeletier

Revision: Michener, 1943. Ent. Soc. Amer. Ann. 36: 49–86.

Subgenus ANTHOCOPA Lepeletier

Anthocopa Lepeletier, 1825. Encycl. Méth., Dict. Ins., v. 10, p. 314.
Type: *Apis papaveris* Latreille. Monob.
Phyllotoma Duméril, 1860. Acad. Sci. Inst. Imp. France Mem. 31: 842. Preocc.
Type: *Apis papaveris* Latreille. Desig. by Michener, 1941.
Pseudosmia Radoszkowski, 1872. Soc. Ent. Rossica Horae 8: xviii.—Radoszkowski, 1874. Soc. Imp. Nat. Moscou Bul. 48 (1): 152.
Type: *Megachile cristata* Fonscolombe. Desig. by Cockerell, 1922.
Pseudo-osmia Radoszkowski, 1873. Soc. Imp. Nat. Moscou Bul. 46 (2): 137. Emend.
Peudocosmia Radoszkowski, 1886. Soc. Ent. Rossica Horae 20: 14. Emend.

This subgenus does not occur in the New World.

Subgenus ATOPOSMIA Cockerell

Osmia subg. *Atoposmia* Cockerell, 1935. Pan-Pacific Ent. 11: 50.
Type: *Osmia triodonta* Cockerell. Orig. desig.

All species visit chiefly flowers of *Pentstemon* in the mountains.

abjecta (Cresson). Colo., Oreg.
Osmia abjecta Cresson, 1878. Amer. Ent. Soc. Trans. 7: 103. ♀.

alta (Michener). Colo., Calif.
Osmia alta Michener, 1936. Canad. Ent. 68: 41. ♀.

anthodyta Michener. Calif.
Anthocopa (Atoposmia) anthodyta Michener, 1943. Ent. Soc. Amer. Ann. 36: 60. ♀ ♂.

elongata (Michener). Calif.
Osmia elongata Michener, 1936. Canad. Ent. 68: 41. ♀.

mesae (Cockerell). Colo.
Hoplitis mesae Cockerell, 1930. Amer. Mus. Novitates 397: 2. ♂.

nigrior Michener. Oreg.
Anthocopa (*Atoposmia*) *nigrior* Michener, 1943. Ent. Soc. Amer. Ann. 36: 54. ♀ ♂.

oregona Michener. Oreg.
Anthocopa (*Atoposmia*) *oregona* Michener, 1943. Ent. Soc. Amer. Ann. 36: 53. ♀ ♂.

panamintensis Michener. Calif. (Panamint Mts.).
Anthocopa (*Atoposmia*) *panamintensis* Michener, 1943. Ent. Soc. Amer. Ann. 36: 65. ♀ ♂.

pycnognatha pycnognatha Michener. East. Calif.
Anthocopa (*Atoposmia*) *pycnognatha* Michener, 1943. Ent. Soc. Amer. Ann. 36: 64. ♀ ♂.

pycnognatha solatus Michener. South. Calif.
Anthocopa (*Atoposmia*) *pycnognatha solatus* Michener, 1949. Kans. Ent. Soc. Jour. 22: 48. ♀ ♂.

shastensis (Cockerell). North. Calif.
Osmia shastensis Cockerell, 1935. Pan-Pacific Ent. 11: 46. ♀.

triodonta triodonta (Cockerell). Calif. (Mt. Diablo).
Osmia (*Atoposmia*) *triodonta* Cockerell, 1935. Pan-Pacific Ent. 11: 50. ♂ ♀.

triodonta usingeri Michener. South. Calif.
Anthocopa triodonta usingeri Michener, 1943. Ent. Soc. Amer. Ann. 36: 63. ♂ ♀.

Subgenus EREMOSMIA Michener

Anthocopa subg. *Eremosmia* Michener, 1943. Ent. Soc. Amer. Ann. 36: 66.
Type: *Osmia robustula* Cockerell. Orig. desig.

laevibullata Michener. East. Calif.
Anthocopa (*Eremosmia*) *laevibullata* Michener, 1943. Ent. Soc. Amer. Ann. 36: 68. ♀.

nitidivitta Michener. South. and east. Calif., desert.
Anthocopa (*Eremosmia*) *nitidivitta* Michener, 1943. Ent. Soc. Amer. Ann. 36: 70. ♀ ♂.

robustula (Cockerell). South. and east. Calif., desert. On flowers of *Parosela*.
Osmia robustula Cockerell, 1935. Pan-Pacific Ent. 11: 44. ♀.

rupestris (Cockerell). South. and east. Calif., desert.
Osmia rupestris Cockerell, 1935. Pan-Pacific Ent. 11: 46. ♀.

timberlakei (Cockerell). South. Calif., desert.
Osmia timberlakei Cockerell, 1935. Pan-Pacific Ent. 11: 41. ♀.

Subgenus PHAEOSMIA Michener

Anthocopa subg. *Phaeosmia* Michener, 1943. Ent. Soc. Amer. Ann. 36: 77.
Type: *Osmia enceliae* Cockerell. Orig. desig.
Revision: Michener, 1949. Kans. Ent. Soc. Jour. 22: 53.

Apparently all species visit flowers of Compositae.

enceliae (Cockerell). South. Calif., desert border.
Osmia enceliae Cockerell, 1935. Pan-Pacific Ent. 11: 43. ♀.

hemizoniae (Cockerell). South. Calif.
Osmia hemizoniae Cockerell, 1935. Pan-Pacific Ent. 11: 47. ♀.

hypostomalis Michener. Calif.
Anthocopa (*Phaeosmia*) *hypostomalis* Michener, 1949. Kans. Ent. Soc. Jour. 22: 50. ♀.

mallognatha Michener. East. Calif., Ariz., desert.
Anthocopa (*Eremosmia*?) *mallognatha* Michener, 1943. Ent. Soc. Amer. Ann. 36: 67. ♀.

maryae Michener. Tex.
Anthocopa (Phaeosmia) maryae Michener, 1949. Kans. Ent. Soc. Jour. 22: 50. ♀.

mortua (Cockerell). East. Calif.
Osmia viguierae var. *mortua* Cockerell, 1935. Pan-Pacific Ent. 11: 44. ♀ ♂.

rubrella Michener. Tex.
Anthocopa (Phaeosmia) rubrella Michener, 1949. Kans. Ent. Soc. Jour. 22: 51. ♀ ♂.

viguierae (Cockerell). South. Calif., desert border.
Osmia viguierae Cockerell, 1935. Pan-Pacific Ent. 11: 44. ♀ (♂misdet.).

Subgenus HEXOSMIA Michener

Anthocopa subg. *Hexosmia* Michener, 1943. Ent. Soc. Amer. Ann. 36: 74.
Type: *Osmia copelandica* Cockerell. Orig. desig.

albomarginata (Cockerell). South. Calif.
Osmia albomarginata Cockerell, 1935. Pan-Pacific Ent. 11: 49. ♀ ♂.

arefacta (Cockerell). South. Calif., deserts.
Osmia arefacta Cockerell, 1935. Pan-Pacific Ent. 11: 42. ♀ ♂.

copelandica (Cockerell). Colo., Utah, Oreg., Calif., B. C., mts.
Osmia copelandica Cockerell, 1908. Entomologist 41: 59. ♀.
Osmia besseyae Cockerell, 1910. Entomolgist 43: 92. ♀ ♂.

phaceliarum (Cockerell). South. Calif.
Osmia phaceliarum Cockerell, 1935. Pan-Pacific Ent. 11: 45. ♀.

Subgenus XEROSMIA Michener

Anthocopa subg. *Xerosimia* Michener 1943. Ent. Soc. Amer. Ann. 36: 81.
Type: *Osmia xerophila* Cockerell. Orig., desig.

Both species visit flowers of *Cryptantha*.

palmarum (Cockerell). South. Calif.
Osmia palmarum Cockerell, 1935. Pan-Pacific Ent. 11: 48. ♀.

xerophila (Cockerell). South. Calif.
Osmia xerophila Cockerell, 1935. Pan-Pacific Ent. 11: 45. ♀ ♂.
Biology: Linsley and MacSwain, 1942. Amer. Midland Nat. 27: 408.

Genus DICERATOSMIA Robertson

Diceratosmia Robertson, 1904. Ent. Soc. Amer. Trans. 29: 166.
Type: (*Osmia quadridentata* Cresson) = *Osmia conjuncta* Cresson. Monob. and orig. desig.
Revision: Michener, 1949. Ent. Soc. Amer. Ann. 42: 258.

botitena (Cockerell). Tex.
Osmia botitena Cockerell, 1909. Ann. Mag. Nat. Hist. (8) 4: 30. ♀.
Osmia conjuncta marilaunidii Cockerell, 1914. Ann. Mag. Nat. Hist. (8) 14: 363. ♂.

conjuncta (Cresson). Ont. and Conn. to N. C., west to Wis., Ill., Mo.
Osmia conjuncta Cresson, 1864. Ent. Soc. Phila. Proc. 3: 31. ♀.
Osmia 4-dentata Cresson (not *Phyllotoma quadridentata* Duméril), 1878. Amer. Ent. Soc. Trans. 7: 107. ♂.
Osmia cressoni Dalla Torre, 1896. Cat. Hym., v. 10, p. 392. Proposed to replace 4-*dentata* Cresson.
Osmia quadridentata Dalla Torre, 1896. Cat. Hym., v. 10, p. 392. Emend.

subfasciata conjunctoides (Robertson). Fla.
Osmia conjunctoides Robertson, 1893. Amer. Ent. Soc. Trans. 20: 276. ♂.

subfasciata punctata (Michener). Ariz., south. Calif., arid areas.
Osmia punctata Michener, 1936. South. Calif. Acad. Sci. Bul. 35: 85. ♀.

subfasciata subfasciata (Cresson). N. J., Tenn., Miss., La., Kans., Okla., Tex.
Osmia subfasciata Cresson, 1872. Amer. Ent. Soc. Trans. 4: 261. ♀ ♂.

Genus OSMIA Panzer

Revisions: Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 357–364 (key to western species).—Sandhouse, 1925. Canad. Ent. 57: 35–41 (key to Canad. species).—Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 1–167.

Subgenus OSMIA Panzer

Osmia Panzer, 1806. Krit. Rev. Insektenf. Deutschlands, v. 2, p. 230.
Type: (***Apis bicornis*** Linnaeus) = ***Apis rufa*** Linnaeus. Desig. by Latreille, 1810.
Amblys Klug, 1807. Mag. Insektenk. 6: 198.
Type: ***Apis rufa*** Linnaeus. Desig. by Latreille, 1810.
Osmia subg. ***Ceratosmia*** Thomson, 1872. Hym. Scand., v. 2, p. 232.
Type: ***Apis rufa*** Linnaeus. Monob.
Osmia subg. ***Aceratosmia*** Schmiedeknecht, [1885]. Apidae Europaeae, v. 2, p. 19.
Type: ***Osmia emarginata*** Lepeletier. Desig. by Sandhouse, 1939.
Osmia subg. ***Pachyosmia*** Ducke, 1900. Ber. naturw.-med. Ver. Innsbruck 25: 18.
Type: ***Osmia rufa*** (Linnaeus). Desig. by Sandhouse, 1939.

lignaria lignaria Say. Que. to Ga., west to Sask. and Tex.
Osmia lignaria Say, 1837. Boston Jour. Nat. Hist. 1: 399. ♀ ♂.
Osmia purpurascens Smith, 1849. Zoologist 7 (app.): lviii. ♂.

lignaria propinqua Cresson. Alta. to N. Mex., west to B. C. and Calif.
Osmia propinqua Cresson, 1864. Ent. Soc. Phila. Proc. 3: 23. ♀.
Osmia lignaria lignariella Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 227. ♀.
Biology: Hicks, 1934. Colo. Univ., Studies 21: 265.—Linsley and MacSwain, 1941. South. Calif. Acad. Sci. Bul. 40: 129.

ribifloris biedermannii Michener. Oreg., Calif., Ariz.
Osmia ribifloris biedermannii Michener, 1936. Amer. Mus. Novitates 875: 19. ♀ ♂.

ribifloris ribifloris Cockerell. Colo., N. Mex.
Osmia (Melanosmia) ribifloris Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 410. ♀.

Subgenus CHALCOSMIA Schmiedeknecht

Osmia subg. ***Chalcosmia*** Schmiedeknecht, 1885? Apidae Europaeae, v. 2, p. 886.
Type: ***Osmia fulviventris*** Latreille. Desig. by Sandhouse, 1939.
Gnathosmia Robertson, 1903. Amer. Ent. Soc. Trans. 29: 165.
Type: ***Osmia georgica*** Cresson. Orig. desig. and monob.

Species of this subgenus visit chiefly Compositae.

chalybea Smith. N. Y., N. J., Fla., La., Tex.
Osmia chalybea Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 143. ♀ ♂.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 33, ♂.

coerulescens (Linnaeus). N. H. to N. C., west to Ill., Wis., ?Alta., ?B. C., Europe.
Apis coerulescens Linnaeus, 1758. Syst. Ent., ed. 10, p. 576. ♀.
Apis aenea Linnaeus, 1761. Fauna Suecica, ed. 2, p. 421. ♂.
Osmia cyanea Giraud, 1866. Soc. Ent. France Ann. 6: 451. ♀ ♂.
Osmia caerulescens Dalla Torre, 1896. Cat. Hym., v. 10, p. 388. Emend.
Osmia purpurea Cresson, 1864. Ent. Soc. Phila. Proc. 3: 27. ♀.
Osmia rustica Cresson, 1864. Ent. Soc. Phila. Proc. 3: 27. ♂.

coloradensis Cresson. Idaho to Colo., west to B. C. and Calif.
Osmia coloradensis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 105. ♀.
Osmia hypochrysea Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 449. ♀.
Osmia hypochrysea Rohweri Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 366. ♀.
Osmia pasadenae Cockerell, 1910. Ent. News 21: 122. ♂.

georgica Cresson. Mass. to Ga., west to La. and Tex. On flowers of Astereae; Heliantheae; Cichorieae.
Osmia georgica Cresson, 1878. Amer. Ent. Soc. Trans. 7: 105. ♀.
Osmia (Gnathosmia) louisianae Cockerell, 1901. Canad. Ent. 42: 171. ♀.

texana Cresson. Alta., Colo., and Tex., west to B. C. and Calif., ?N. Y., ?Ga.
Osmia texana Cresson, 1872. Amer. Ent. Soc. Trans. 4: 261. ♂.
Osmia mandibularis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 102. ♀.
Osmia faceta Cresson, 1878. Amer. Ent. Soc. Trans. 7: 103. ♂.
Osmia davidsoniella Cockerell, 1905. Canad. Ent. 37: 370. ♂.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 217.—Mickel, 1928. Ent. News 39: 69.

Subgenus CEPHALOSMIA Sladen

Cephalosmia Sladen, 1916. Canad. Ent. 48: 270.
Type: (*Osmia armaticeps* Cresson) = *Osmia montana* Cresson. Monob.

californica Cresson. Oreg., Calif., Utah, ?B. C.
Osmia californica Cresson, 1864. Ent. Soc. Phila. Proc. 3: 24. ♀.
Osmia nassa Cockerell, 1910. Ent. News 21: 272. ♀.
Osmia occidentalis Michener, 1936. Canad. Ent. 68: 42. ♀.

grinnelli Cockerell. Idaho, Calif.
Osmia grinnelli Cockerell, 1910. Ent. News 21: 120. ♀.

marginipennis Cresson. Idaho, Colo., Wyo., Utah, Nev., ?B. C.
Osmia marginipennis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 106. ♂.
Osmia gaillardiae Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 227. ♀.
Osmia viridior Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 261. ♂.
Osmia leonis Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 123. ♀.

mendocinensis Sandhouse. Calif.
Osmia (Cephalosmia) mendocinensis Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 27. ♀.

montana Cresson. Idaho to N. Mex., west to B. C., Oreg., and Ariz. mts.
Osmia montana Cresson, 1864. Ent. Soc. Phila. Proc. 3: 24. ♂.
Osmia armaticeps Cresson, 1878. Amer. Ent. Soc. Trans. 7: 104. ♀.
Osmia armaticeps var. *sapellonis* Cockerell, 1901. Ann. Mag. Nat. Hist. (7) 7: 336. ♀.

pascoensis Cockerell. Mont. to Colo., west to B. C. and Oreg.
Osmia pascoensis Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 342. ♀.

quadriceps Cresson. South. Oreg., Calif., Ariz.
Osmia quadriceps Cresson, 1878. Amer. Ent. Soc. Trans. 7: 104. ♀.

subaustralis austromontana Michener. South. Calif. mts.
Osmia wardiana austromontana Michener, 1936. Canad. Ent. 68: 42. ♀.

subaustralis subaustralis Cockerell. Alta. to N. Mex., west to B. C. and Calif. mts.
Osmia nigrifrons var. *subaustralis* Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 410. ♀.
Osmia wardiana Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 368. ♀.
Osmia seneciophila Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 446. ♂.
Osmia lyncis Cockerell, 1937. South. Calif. Acad. Sci. Bul. 36: 110. ♀. N. syn.

Subgenus MELANOSMIA Schmiedeknecht

Osmia subg. *Melanosmia* Schmiedeknecht, ?1885. Apidae Europaeae, v. 2, p. 885.
Type: *Osmia fuciformis* Latreille. Desig. by Sandhouse, 1939.
Centrosmia Robertson, 1903. Amer. Ent. Soc. Trans. 29: 165.
Type: *Osmia bucephala* Cresson. Orig. desig. and monob.

bucephala bucephala Cresson. Que. to N. C., west to Ill., N. Mex., Utah, and Idaho, thence north to N. W. T. Limited to mountains in southern part of range.
Osmia bucephala Cresson, 1864. Ent. Soc. Phila. Proc. 3: 17. ♀.
Osmia megacephala Cresson, 1864. Ent. Soc. Phila. Proc. 3: 18. ♀.

Osmia latitarsis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 20. ♂.
Osmia lignivora Packard, 1867. Amer. Nat. 1: 375, ♀.—Cockerell, 1907. Colo. Univ., Studies 5: 37.
Osmia lignicola Provancher, 1882. Nat. Canad. 13: 208. ♀.
Osmia tarsata Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 328. ♂.
Biology: Packard, 1867. Amer. Nat. 1: 375 (as *lignivora*).

bucephala subornata Cockerell. Wash., Oreg.
Osmia subornata Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 342. ♀.

inermis (Zetterstedt). Labrador, Que., N. B., Ont., Maine, Mass., Colo., N. W. T., Alta., Mont., B. C., Wash., Oreg., Eurasia.
Anthophora (*Osmia*) *inermis* Zetterstedt, 1838. Ins. Lapponica, v. 1, p. 466. ♀.
Osmia parietina Smith, 1844. Zoologist 2: 743. ♀.
Osmia globosa Cresson, 1864. Ent. Soc. Phila. Proc. 3: 36. ♀.
Osmia vulpecula Gerstaecker, 1869. Stettin. Ent. Ztg. 30: 335. ♀.
Osmia globosiformis Cockerell, 1910. Canad. Ent. 42: 311. ♂.

nigriventris (Zetterstedt). Alaska, Alta., Wash., Oreg., Colo., Ont., Mont., Eurasia.
Anthophora nigriventris Zetterstedt, 1838. Ins. Lapponica, v. 1, p. 465. ♀.
Osmia xanthomelaena Smith, 1844. Zoologist 2: 745. ♀ ♂.
Osmia frigida Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 142. ♀ ♂.
Osmia hudsonica Cresson, 1864. Ent. Soc. Phila. Proc. 3: 21. ♂.
Osmia corticalis Gerstaecker, 1869. Stettin. Ent. Ztg. 30: 331. ♀ ♂.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 331, ♀ ♂.

Subgenus ACANTHOSMIOIDES Ashmead

Acanthosmioides Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 76.
Type: *Osmia odontogaster* Cockerell. Orig. desig. and monob.
Key: Michener, 1936. Amer. Mus. Novitates 875: 27–28.

ashmeadii (Titus). Oreg.
Acanthosmioides ashmeadii Titus, 1904. Ent. Soc. Wash. Proc. 6: 101. ♂.

crenulaticornis Michener. Calif.
Osmia crenulaticornis Michener, 1936. South. Calif. Acad. Sci. Bul. 35: 84. ♂.
Taxonomy: Michener, 1949. Kans. Ent. Soc. Jour. 22: 56.

dakotensis Michener. N. Dak., Mont., east. Colo.
Osmia dakotensis Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 407. ♀.
Osmia (?*Acanthosmioides*) *dacotensis* Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 62. Emend.

enixa Sandhouse. Colo., Calif.
Osmia enixa Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 347. ♂.

giffardi Sandhouse. Calif.
Osmia (*Acanthosmioides*) *giffardi* Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 50. ♂.

giliarum Cockerell. Colo., Idaho, Oreg.
Osmia giliarum Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 451. ♀.

hendersoni Cockerell. Mont., Wyo., Colo., Utah, Oreg.
Osmia Hendersoni Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 365. ♀.

integra integra Cresson. Mont., Colo., and Tex. west to Oreg. and B. C.
Osmia integra Cresson, 1878. Amer. Ent. Soc. Trans. 7: 106. ♂.
Osmia novomexicana Cockerell, 1903. Ent. News 14: 331. ♀.
Osmia florissanticola Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 450. ♀.
Taxonomy: Cockerell, 1910. Ent. News 21: 270, ♂.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 246 (as *novomexicana*).

integra nigrigena Michener. Calif.
Osmia integra nigrigena Michener, 1936. South. Calif. Acad. Sci. Bul. 35: 90. ♂ ♀.
kenoyeri Cockerell. Yukon, Alta., Calif., Colo.
Osmia kenoyeri Cockerell, 1915. Ann. Mag. Nat. Hist. (8) 16: 483. ♂ ♀.

lanei Sandhouse. Wash., Oreg., Calif.
Osmia (Acanthosmioides) lanei Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 51. ♂.

liogastra Cockerell. Calif.
Osmia liogastra Cockerell, 1933. Pan-Pacific Ent. 9: 26. ♀.

longula Cresson. Mont. to Colo., west to Oreg. and Alaska.
Osmia longula Cresson, 1864. Ent. Soc. Phila. Proc. 3: 19. ♀.
Osmia abnormis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 105. ♂
Osmia grandior Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 343. ♀.
Osmia permorata Cockerell, 1910. Canad. Ent. 42: 310. ♀.

lupinicola Cockerell. Calif.
Osmia lupinicola Cockerell, 1937. Amer. Mus. Novitates 948: 12. ♀.

melanopleura Cockerell. Calif.
Osmia melanopleura Cockerell, 1916. Pomona Col. Jour. Ent. Zool. 8: 52. ♀.
Osmia pinorum Cockerell, 1935. Amer. Mus. Novitates 766: 4. ♀.

morongana Cockerell. Calif.
Osmia Morongana Cockerell, 1937. Amer. Mus. Novitates 948: 11. ♀.

nifoata Cockerell. Alta., Idaho, Wyo., Colo., Utah, Oreg., B. C.
Osmia (Acanthosmioides) nifoata Cockerell, 1909. Entomologist 42: 95. ♂.
?*Osmia sladeni* Sandhouse, 1925. Canad. Ent. 57: 33. ♂.
?*Osmia (Acanthosmioides) wyomingensis* Michener, 1936. Amer. Mus. Novitates 875: 27. ♂.
?*Osmia (Acanthosmioides) depressa* Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 406. ♂.

nigrifrons casta Cockerell. Calif.
Osmia casta Cockerell, 1910. Ent. News 21: 272. ♀.

nigrifrons nigrifrons Cresson. Alta., S. Dak., Colo., west to Calif., Oreg., B. C.
Osmia nigrifrons Cresson, 1878. Amer. Ent. Soc. Trans. 7: 103. ♀.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 246.

nigrobarbata Cockerell. Calif.
Osmia nigrobarbata Cockerell, 1916. Pomona Col. Jour. Ent. Zool. 8: 52. ♀.
Osmia vanduzeei Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 343. ♂.

odontogaster Cockerell. B. C., Wash., Oreg.
Osmia odontogaster Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 338. ♂.

pellax Sandhouse. Mont., Wyo., Colo., Idaho, Oreg., Calif.
Osmia pellax Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 356. ♀.
?*Osmia lutzi* Michener, 1936. Amer. Mus. Novitates 875: 25. ♀.
Biology: Fulton and Bergen, 1935. Jour. Econ. Ent. 28: 729.

physariae Cockerell. Sask., Alta., Colo., Calif., Oreg., Wash.
Osmia physariae Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 446. ♂.
?*Osmia (Acanthosmioides) erecta* Michener, 1936. Canad. Ent. 68: 40. ♂.

prunorum Cockerell. N. Mex.
Osmia prunorum Cockerell, 1897. Canad. Ent. 29: 65. ♀ (♂misdet.).

sedula Sandhouse. B. C., Wash., Calif.
Osmia sedula Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 353. ♀.

trifoliama Sandhouse. Oreg.
Osmia (Acanthosmioides) trifoliama Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 44. ♀.

unca Michener. Mont., Colo., Oreg., B. C.
Osmia (Acanthosmioides) uncinata Michener, 1936. Canad. Ent. 68: 39. ♂. Preocc.
Osmia (Acanthosmioides) unca Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 406. Proposed to replace *uncinata* Michener.
Osmia (Acanthosmioides) hicksi Sandhouse, 1939. Ent. Soc. Amer. Mem. 1: 53. ♂.

watsoni Cockerell. N. Mex.
Osmia watsoni Cockerell, 1911. Amer. Ent. Soc. Trans. 37: 235. ♂.

Subgenus NOTHOSMIA Ashmead

Nothosmia Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 75.
Type: ***Osmia distincta*** Cresson. Orig. desig. and monob.
Leucosmia Robertson, 1903. Amer. Ent. Soc. Trans. 29: 166.
Type: ***Osmia albiventris*** Cresson. Orig. desig. and monob.
Xanthosmia Robertson, 1903. Amer. Ent. Soc. Trans. 29: 166.
Type: ***Osmia cordata*** Robertson. Orig. desig. and monob.
Monilosmia Robertson, 1903. Amer. Ent. Soc. Trans. 29: 166.
Type: (***Osmia canadensis*** Cresson) = ***Osmia simillima*** Smith. Orig. desig. and monob.

albiventris Cresson. Que. to N. C., west to Wis. and Ill.
Osmia albiventris Cresson, 1864. Ent. Soc. Phila. Proc. 3: 31. ♀ ♂.

albolateralis albolateralis Cockerell. Alta. to N. Mex., west to B. C. and Wash.
Osmia dubia Cresson, 1864. Ent. Soc. Phila. Proc. 3: 29. ♀. Preocc.
Osmia albolateralis Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 450. ♀.
?***Osmia enena*** Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 448. ♂.

albolateralis visenda Sandhouse. Oreg., Calif.
Osmia visenda Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 12: 355. ♀.

atriventris Cresson. N. B., Que. to Ga., west to Ill., Iowa, Minn. Alta.
Osmia atriventris Cresson, 1864. Ent. Soc. Phila. Proc. 3: 29. ♀.

atrocyanea atrocyanea Cockerell. Wash., Oreg., north. Calif., Colo., Utah, Nev.
Osmia atrocyanea Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 344. ♀.
Osmia senior Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 368. ♀.
Osmia pseudamala Cockerell, 1910. Canad. Ent. 42: 312. ♂.
Taxonomy: Cockerell, 1930. Ann. Mag. Nat. Hist (10) 5: 163, ♂ ♀.

atrocyanea putata Cockerell. South. Calif.
Osmia putata Cockerell, 1910. Ent. News 21: 272. ♀.

austromaritima Michener. Calif., Colo.
Osmia austromaritima Michener, 1936. Canad. Ent. 68: 43. ♂.

bakeri Sandhouse. Oreg., Calif.
Osmia bakeri Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 345. ♂.

brevis brevis Cresson. Wyo., Colo., Utah, Ariz., B. C., Oreg., north. and cent. Calif.
Osmia brevis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 36. ♀.
Osmia wilmattae Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 228. ♀.
?***Osmia wheeleri*** Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 449. ♂.

brevis peridonea Sandhouse. South. Calif.
Osmia peridonea Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 348. ♂.

bridwelli Sandhouse. Nev., Calif.
Osmia (Nothosmia) bridwelli Cockerell, 1939. Ent. Soc. Wash. Mem. 1: 100. ♂ ♀.

bruneri Cockerell. Mont. to N. Mex., west to B. C. and Calif.
Osmia bruneri Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 337. ♀.
Osmia Bennettae Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 122. ♂.
Osmia holochlora Cockerell, 1923. Canad. Ent. 55: 205. ♂.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 242 (as *bennettae*), 243.

calla Cockerell. Idaho to Colo., west to Calif. and B. C.
Osmia calla Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 337. ♂.
Osmia Ednae Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 123. "♀" = ♂.

cara Cockerell. South. Calif., Nev.
Osmia cara Cockerell, 1910. Ent. News 21: 271. ♀.

caulicola Cockerell. Wyo., Colo.
Osmia caulicola Cockerell, 1934. Brooklyn Ent. Soc. Bul. 29: 17. ♀ ♂.

cerasi Cockerell. N. Mex.
Osmia cerasi Cockerell, 1897. Canad. Ent. 29: 66. ♀.

claremontensis Michener. Mont., Wash., Oreg., Calif.
Osmia claremontensis Michener, 1936. South. Calif. Acad. Sci. Bul. 35: 84. ♂.

clarescens Cockerell. South. Calif., N. Mex., ?Sask.
Osmia clarescens Cockerell, 1911. Ann. Mag. Nat. Hist. (8) 8: 764. ♀ ♂.

cobaltina Cresson. Idaho to Colo., west to B. C. and Calif., ?Ariz.
Osmia cobaltina Cresson, 1878. Amer. Ent. Soc. Trans. 7: 104. ♀ (part).
Osmia bella Cresson, 1878. Amer. Ent. Soc. Trans. 7: 107. ♂ (part).
Osmia basilissa Cockerell, 1911. Ann. Mag. Nat. Hist. (8) 8: 764. ♀.
Osmia kerminesina Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 349. ♀.

cockerelli Sandhouse. Colo., N. Mex.
Osmia (Nothosmia) cockerelli Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 104. ♂.

collinsiae Robertson. Maine to N. C., west to Mich. and Ill.
Osmia collinsiae Robertson, 1905. Canad. Ent. 37: 236. ♂.

cordata Robertson. N. Dak., Ill., Mo., Colo., N. Mex.
Osmia cordata Robertson, 1902. Ent. News 13: 79. ♂.
Osmia hesperella Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 227. ♀.
Osmia coloradella Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 229. ♀.
Osmia Ramaleyi Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 126. ♂ ♀.
Osmia figginsi Cockerell, 1935. Amer. Mus. Novitates 766: 2. ♂.
Taxonomy: Cockerell, 1911. Canad. Ent. 43: 389.
Biology: Turner, 1911. Jour. Anim. Behavior 1: 374 (as "Stelidae").—Rau, 1916. Jour. Anim. Behavior 6: 39.—Rau, 1923. Ent. News 34: 308.—Rau, 1928. Acad. Sci. St. Louis, Trans. 25: 363.—Hicks, 1934. Colo. Univ., Studies 21: 265.—Rau, 1937. Ent. Soc. Amer. Ann. 30: 324.

cyanella Cockerell. Wash., Oreg., Calif., Colo., Utah, Nev.
Osmia cyanella Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 340. ♀.
Osmia aprilina Cockerell, 1907. Ann. Mag. Nat. Hist (7) 19: 364. ♂.
Osmia aprilina atrovirens Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 347. ♂ (part).
Osmia brevior Michener, 1936. Amer. Mus. Novitates 875: 20. ♀.

cyaneonitens Cockerell. S. Dak., Colo.
Osmia cyaneonitens Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 448. ♂.
Osmia brevihirta Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 365. ♀.

cyanopoda Cockerell. Idaho, Nev., Wash., Oreg., Calif.
Osmia cyanopoda Cockerell, 1916. Pomona Col. Jour. Ent. Zool. 8: 52. ♀.
Osmia parallela Michener, 1936. Amer. Mus. Novitates 875: 19. ♂.

densa densa Cresson. Mont. to N. Mex., west to B. C., cent. Calif., and Ariz.
Osmia densa Cresson, 1864. Ent. Soc. Phila. Proc. 3: 25. ♀.
Osmia olivacea Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 362. ♂.
Osmia proposita Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 354. ♀.

densa pogonigera Cockerell. Calif.
Osmia pogonigera Cockerell, 1910. Ent. News 21: 121. ♀.
Osmia celsa Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 354. ♀.

distincta Cresson. Que., Maine to N. C., west to N. Dak., and Colo.
Osmia distincta Cresson, 1864. Ent. Soc. Phila. Proc. 3: 30. ♀.

dolerosa Sandhouse. B. C., Wash., Oreg., Calif.
Osmia dolerosa Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 123. ♀.

exigua Cresson. South. Colo., N. Mex., south. Calif.
Osmia exigua Cresson, 1878. Amer. Ent. Soc. Trans. 7: 107. ♂.
Osmia granulosa Cockerell, 1911. Ann. Mag. Nat. Hist. (8) 8: 767. ♀ ♂.
Osmia exiguua (!) Cresson, 1916. Amer. Ent. Soc. Mem. 1: 118.
Osmia vana Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 349. ♀.

felti Cockerell. N. H., Mass., N. Y., Pa.
Osmia felti Cockerell, 1911. Ent. News 22: 18. ♀.

gabrielis Cockerell. Oreg., Calif.
Osmia gabrielis Cockerell, 1910. Ent. News 21: 120. ♀.

gaudiosa Cockerell. Colo., Calif.
Osmia gaudiosa Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 538. ♂.

glauca (Fowler). Calif.
Heriades glaucum Fowler, 1899. Psyche 8: 405. ♂.
Osmia exilis Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 351. ♀.
Biology: Linsley and MacSwain, 1941. South. Calif. Acad. Sci. Bul. 40: 129.

grindeliae Cockerell. Alta., Colo., Wash., Oreg., Calif.
Osmia grindeliae Cockerell, 1910. Psyche 17: 246. ♀.

hemera Sandhouse. Calif.
Osmia (Nothosmia) hemera Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 114.. ♂.

hesperos Sandhouse. Calif., Oreg.
Osmia hesperos Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 131. ♂.

illinoensis Robertson. South. Ill., Tex.
Osmia illinoensis Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 347. ♂.

indeprensa Sandhouse. Idaho, Nev., Wash., Oreg., Calif.
Osmia (Nothosmia) indeprensa Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 115. ♀ ♂.

inspergens Lovell and Cockerell. Que., Maine, N. H., Mass., N. Y., N. C.
Osmia inspergens Lovell and Cockerell, 1907. Psyche 14: 17. ♀.

integrella Cockerell. Oreg., Colo., ?B. C., ?Alta.
Osmia integrella Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 124. ♂.

inurbana Cresson. Wyo., Colo., Idaho, Wash., Oreg., ?Calif., ?Que., Man., ?Alta., ?B. C.
Osmia inurbana Cresson, 1878. Amer. Ent. Soc. Trans. 7: 107. ♂ (part).
Osmia eutrichosa Cockerell, 1910. Canad. Ent. 42: 312. ♂.

iridis Cockerell and Titus. Colo., N. Mex., Calif.
Osmia iridis Cockerell and Titus, 1902. Amer. Nat. 36: 816. ♂.

juxta juxta Cresson. Alta. to N. Mex., west to Idaho and Ariz.
Osmia juxta Cresson, 1864. Ent. Soc. Phila. Proc. 3: 19. ♀.
Osmia theta Sandhouse, 1925. Canad. Ent. 57: 34. ♂.
Osmia subpurpurea jamesi Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 409. ♀.

juxta subpurpurea Cockerell. B. C. to Calif.
Osmia subpurpurea Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 344. ♀.

kincaidii Cockerell. Nebr., N. Mex., Idaho, B. C., Wash., Oreg., Calif.
Osmia kincaidii Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 334. ♀ ♂.

lacus Sandhouse. Oreg., Calif.
Osmia (Nothosmia) lacus Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 125. ♂.

laeta Sandhouse. Calif., ?N. Mex.
Osmia laeta Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 350. ♀.
Osmia aglaia Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 112. ♀. N. syn. (Timberlake).

latisulcata Michener. Ariz., Nev., Calif.
Osmia latisulcata Michener, 1936. South. Calif. Acad. Sci. Bul. 35: 86. ♀.

malina Cockerell. Wash., Calif., Colo.
Osmia malina Cockerell, 1909. Entomologist 42: 94. ♀.

marginata Michener. South. Calif., desert.
Osmia marginata Michener, 1936. South. Calif. Acad. Sci. Bul. 35: 86. ♀.

mertensiae Cockerell. Colo., ?Calif., ?B. C.
Osmia mertensiae Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 448. ♂.
Taxonomy: Cockerell, 1934. Amer. Mus. Novitates 732: 5, ♀.

mixta Michener. Calif.
Osmia mixta Michener, 1936. South. Calif. Acad. Sci. Bul. 35: 88. ♀.
Taxonomy: Michener, 1949. Kans. Ent. Soc. Jour. 22: 56.

nanula Cockerell. Idaho, Utah, Colo., B. C., Wash., Oreg.
Osmia nanula Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 339. ♀.
Osmia phaceliae Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 364. ♀.

nelsoni Cockerell. Wyo.
Osmia nelsoni Cockerell, 1930. Ann. Mag. Nat. Hist. (10) 5: 411. ♀.
Taxonomy: Michener, 1949. Kans. Ent. Soc. Jour. 22: 55.

nemoris Sandhouse. Mont., Wash., Oreg., Calif.
Osmia nemoris Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 345. ♂.
Osmia abdominalis Michener, 1935. Pan-Pacific Ent. 11: 184. ♂.

nigritula Friese. No locality known.
Osmia parva Provancher, 1883. Nat. Canad. 14: 37. ♂. Preocc.
Osmia parvula Dalla Torre, 1896. Cat. Hym., v. 10, p. 405. Proposed to replace *parva* Provancher. Preocc.
Osmia nigritula Friese, 1902. Ztschr. System. Hym. Dipt. 2: 109. Proposed to replace *parvula* Dalla Torre.

novaescotiae Cockerell. N. S. (Probably =*simillima* or *proxima*.)
Osmia novaescotiae Cockerell, 1912. Canad. Ent. 44: 355. ♀.

pagosa Sandhouse. Oreg., Colo.
Osmia (*Nothosmia*) *pagosa* Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 89. ♀.

paradisica Sandhouse. Wash., Oreg.
Osmia paradisica Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 343. ♂.

pentstemonis Cockerell. Alta., Idaho, Utah, Colo., B. C., Wash., Oreg., Calif.
Osmia pentstemonis Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 451. ♀.

phenax Cockerell. N. Mex.
Osmia phenax Cockerell, 1897. Canad. Ent. 29: 66. ♀.

pikei Cockerell. B. C., Oreg., Nev., Wyo., Colo.
Osmia pikei Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 367. ♀.
Osmia vallicola Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 449. ♂. N. syn.

pingreeana Michener. Colo.
Osmia pingreeana Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 408. ♀.

potentillae Michener. Calif.
Osmia potentillae Michener, 1936. South. Calif. Acad. Sci. Bul. 35: 89. ♀.
Taxonomy: Michener, 1949. Kans. Ent. Soc. Jour. 22: 56.

proxima Cresson. Que., N. S., N. Y., Ill., N. Dak., Wyo., and Oreg., north to Alaska and N.W.T.
Osmia proxima Cresson, 1864. Ent. Soc. Phila. Proc. 3: 32. ♂.
Osmia sericea Cresson, 1864. Ent. Soc. Phila. Proc. 3: 27. ♂.
Osmia melanotricha Lovell and Cockerell, 1907. Psyche 14: 16. ♀.

pulsatillae Cockerell. Idaho, Wyo., Colo., Wash., Oreg.
Osmia pulsatillae Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 363. ♂.

pumila Cresson. Que. to N. C., west to Ill., Minn., Kans.
Osmia pumila Cresson, 1864. Ent. Soc. Phila. Proc. 3: 35. ♀.
Osmia vicina Cresson, 1864. Ent. Soc. Phila. Proc. 3: 38. ♂.
Osmia pumilia (!) Pearson, 1933. Ecol. Monogr. 3: 381.

pusilla Cresson. Wash., Oreg., Colo., ?N. Mex.
Osmia pusilla Cresson, 1864. Ent. Soc. Phila. Proc. 3: 35. ♂.

rawlinsi Sandhouse. Wyo., Calif.
Osmia (*Nothosmia*) *rawlinsi* Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 115. ♀.

regulina Cockerell. Oreg., Calif.
Osmia regulina Cockerell, 1911. Ann. Mag. Nat. Hist. (8) 8: 766. ♀ (♂ misdet.).

rostrata Sandhouse. Calif.
Osmia rostrata Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 351. ♀.

sanctae-rosae Cockerell. Calif.
Osmia sanctae-rosae Cockerell, 1910. Ent. News 21: 121. ♀.

sandhouseae Mitchell. Mass., N. Y., N. J., N. C., Ga., Fla., east Tex.
Osmia albohirta Mitchell, 1924. Elisha Mitchell Sci. Soc. Jour. 40: 164. ♀. Preocc.

Osmia sandhouseae Mitchell, 1927. Psyche 34: 178. Proposed to replace *albohirta* Mitchell.

sculleni Sandhouse. Oreg., Calif., Utah, Colo.
Osmia (Nothosmia) sculleni Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 82. ♀.

seclusa Sandhouse. B. C., Idaho, Wash., Oreg., Calif.
Osmia seclusa Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 352. ♀.

sequoiae Michener. Calif.
Osmia sequoiae Michener, 1936. South. Calif. Acad. Sci. Bul. 35: 89. ♀.
Taxonomy: Michener, 1949. Kans. Ent. Soc. Jour. 22: 57.

simillima Smith. Que., N. S. to N. C., west to N.W.T., B. C., Oreg., Utah, Ariz.
Osmia simillima Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 142. ♀ ♂.
Osmia canadensis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 33. ♂.
Osmia cognata Cresson, 1864. Ent. Soc. Phila. Proc. 3: 33. ♂.
Osmia major Robertson, 1902. Ent. News 13: 79. ♀ (♂ misdet.).
Osmia chlorops Cockerell and Titus, 1902. Amer. Nat. 36: 816. ♂.
Biology: Packard, 1867. Amer. Nat. 1: 377.—Saunders, 1872. Canad. Ent. 4: 237 (as *canadensis*). Identifications of these biological records dubious.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 332.—Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 448, ♂.

solitaria Sandhouse. Calif.
Osmia solitaria Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 346. ♂.
Taxonomy: Michener, 1949. Kans. Ent. Soc. Jour. 22: 55.

tanneri Sandhouse. Utah.
Osmia (Nothosmia) tanneri Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 87. ♂.

tersula Cockerell. Ont., Alta., Mont., Colo., Oreg., B. C., N.W.T., Alaska.
Osmia tersula Cockerell, 1912. Canad. Ent. 44: 358. ♂.
Osmia subarctica Cockerell, 1912. Canad. Ent. 44: 357. ♀.

titusi Cockerell. South. Calif., ?N. Mex.
Osmia titusi Cockerell, 1905. Canad. Ent. 37: 370. ♀.

tokopahensis Michener. Calif.
Osmia tokopahensis Michener, 1936. South. Calif. Acad. Sci. Bul. 35: 87. ♀.
Taxonomy: Michener, 1949. Kans. Ent. Soc. Jour. 22: 58.

trevoris Cockerell. Alta., Wyo., Colo., Nev., Oreg., Wash., B. C.
Osmia trevoris Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 341. ♀.
Osmia subtrevoris Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 451. ♀.
Osmia corkinsi Sandhouse, 1924. Ent. News 35: 351. ♀.

tristella cyanosoma Cockerell. South. Calif.
Osmia cyanosoma Cockerell, 1916. Pomona Col. Jour. Ent. Zool. 8: 52. ♀.

tristella tristella Cockerell. B. C., Wash., Oreg., Calif., Idaho, Colo., ?Que.
Osmia tristella Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 340. ♀.
Osmia hypoleuca Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 366. ♀.

universitatis Cockerell. B. C., Wash., Oreg., Calif., Colo.
Osmia universitatis Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 538. ♂.
Osmia amala Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 447. ♂.
Osmia metitia Cockerell, 1909. Canad. Ent. 41: 130. ♂.

vandykei Sandhouse. Oreg.
Osmia vandykei Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 344. ♂.

virga Sandhouse. Mass., Conn., N. J., Pa., Va.
Osmia virga Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 130. ♂.

zephyros Sandhouse. Calif.
Osmia zephyros Sandhouse, 1939. Ent. Soc. Wash. Mem. 1: 132. ♂ ♀.

Osmia of Unknown Subgenus

angustipes Cockerell. Colo.
Osmia angustipes Cockerell, 1933. Pan-Pacific Ent. 9: 158. ♂.

foxi Cameron. N. Mex.
Osmia Foxi Cameron, 1901. Amer. Ent. Soc. Trans. 27: 316. ♂.

stasima Lovell. Mass.
Osmia stasima Lovell, 1909. Ent. News 20: 125. ♀.

Nomen Nudum in Osmia

Osmia pacifica "Say," Packard, 1892. Psyche 6: 340.

Genus MEGACHILE Latreille

Revision (including biological notes): Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 295–361.—Mitchell, 1936. Amer. Ent. Soc. Trans. 61: 1–44, 155–205.—Mitchell, 1937. Amer. Ent. Soc. Trans. 62: 117–166, 323–382.—Mitchell, 1938. Amer. Ent. Soc. Trans. 63: 45–83, 175–206, 381–426.

Subgenus LITOMEGACHILE Mitchell

Megachile subg. *Litomegachile* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 301, 308.
Type: *Megachile brevis* Cresson. Orig. desig.

brevis Say. U. S. and south. Canada.
Megachile brevis Say, 1837. Boston Jour. Nat. Hist. 1: 407. ♂ ♀.
Megachile languinosa Smith, 1853. Cat. Hym. Ins. Coll. Brit. Mus., v. 1, p. 190. ♀ ♂.
?Megachile nupta Cresson, 1872. Amer. Ent. Soc. Trans. 4: 268. ♀.
Megachile perbrevis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 127. ♂.

cleomis Cockerell. Que., Fla., Ind., Minn., N. Dak. to Tex., west to B. C. and Calif.
Megachile cleomis Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 6: 13. ♀ ♂.
Megachile pruinosa Friese 1903. Ztschr. System. Hym. Dipt. 3: 246. ♀ ♂. Preocc.

coquilletti Cockerell. Idaho and Utah, west to B. C. to south. Calif.
Megachile mendica coquilletti Cockerell, 1915. Ann. Mag. Nat. Hist. (8) 15: 535. ♂.

gentilis Cresson. Tex., N. Mex., Ariz., Idaho, Oreg., Nev., Calif., Hawaii.
Megachile gentilis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 267. ♂.
Megachile palmarum Perkins, 1899. Fauna Hawaii., v. 1, p. 114. ♂ ♀.
Megachile murinella Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 1: 263. ♀.

lippiae Cockerell. Mont., Nebr., Tex., west to Utah and Calif.
Megachile cleomis var. *lippiae* Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 6: 15. ♀ ♂.

mendica Cresson. Ont. and Maine to Fla., west to S. Dak., Colo., Ariz. and Calif.
Megachile mendica Cresson, 1878. Amer. Ent. Soc. Trans. 7: 126. ♀.

onobrychidis Cockerell. Nebr. and Tex., west to Idaho, B. C. and Calif.
Megachile onobrychidis Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 1: 266. ♂.

pseudobrevis Mitchell. N. C. to Fla. and Miss.
Megachile (Litomegachile) brevis var. *pseudobrevis* Mitchell, 1936. Amer. Ent. Soc. Trans. 61: 20. ♀ ♂.

snowi Mitchell. Colo., N. Mex., Ariz.
Megachile mendica snowi Mitchell, 1927. Psyche 34: 113. ♀.

texana Cresson. Que. to Fla., west to B. C. and Calif. On flowers of Leguminosae.
Megachile texana Cresson, 1878. Amer. Ent. Soc. Trans. 7: 125. ♂ (♀ misdet.).
Megachile generosa Cresson, 1878. Amer. Ent. Soc. Trans. 7: 125. ♀.
Megachile schismatura Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 1: 267. ♂.
Megachile vernonensis Cockerell, 1912. Canad. Ent. 44: 354. "♀"=♂.

Subgenus NEOMEGACHILE Mitchell

Megachile subg. *Neomegachile* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 302, 307.
Type: *Megachile chichimeca* Cresson. Orig. desig.

aegra Mitchell. South. Tex., south to Brazil.
Megachile aegra Mitchell, 1930. Amer. Ent. Soc. Trans. 56: 283. ♂.

chichimeca Cresson. South. Tex., Mexico.
Megachile chichimeca Cresson, 1878. Amer. Ent. Soc. Trans. 7: 130. ♀.
Megachile disparipennis Cockerell, 1917. *In* W. P. Cockerell, N. Y. Ent. Soc. Jour. 25: 192. ♀.

Subgenus CRESSONIELLA Mitchell

Megachile subg. *Cressoniella* Mitchell, 1943. Amer. Ent. Soc. Trans. 59: 302, 307.
Type: *Megachile zapoteca* Cresson. Orig. desig.

zapoteca Cresson. South. Ariz., south to Costa Rica.
Megachile zapoteca Cresson, 1878. Amer. Ent. Soc. Trans. 7: 128. ♀.
Megachile tuxtla Cresson, 1878. Amer. Ent. Soc. Trans. 7: 128. ♂.

Subgenus MEGACHILE Latreille

Megachile Latreille, 1802. Hist. Nat. Formis, p. 434.
Type: *Apis centuncularis* Linnaeus. Desig. by Curtis, 1828.
Anthophora Fabricius (not Latreille), 1804. Systema piezatorum, p. 372.
Type: *Apis centuncularis* Linnaeus. Pres. desig.
Anthemois Robertson, 1903. Amer. Ent. Soc. Trans. 29: 168.
Type: (*Megachile infragilis* Cresson)=*Apis centuncularis* Linnaeus. Monob. and orig. desig.
Cyphopyga Robertson, 1903. Amer. Ent. Soc. Trans. 29: 169.
Type: *Megachile montivaga* Cresson. Monob. and orig. desig.
Megalochila Schulz, 1906. Spolia Hym., p. 64. Emend.

centuncularis (Linnaeus). Holarctic, in America principally northern, but occurs south to Fla., Mo., Colo., Nev.
Apis centuncularis Linnaeus, 1758. Syst. Nat., Ed. 10, p. 575. Sex?
Megachile infragilis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 127. ♂.
Megachile leoni Titus, 1906. Ent. Soc. Wash. Proc. 7: 150. ♀.

inermis Provancher. N. S. to Ga., west to B. C., Idaho, Utah, Colo., N. Mex., Tex.
Megachile simplex Provancher, 1882. Nat. Canad. 13: 229. ♂. Preocc.
Megachile inermis Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 323. ♂.
Megachile simplicissima Dalla Torre, 1896. Cat. Hym., v. 10, p. 449. N. name for *simplex* Provancher.
Megachile sapellonis Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 6: 7. ♀. The name *sapellonis* may be used for a western subspecies.
Megachile temporalis Friese, 1903. Ztschr. System. Hym. Dipt. 3: 247. ♂ (♀ misdet.).
Megachile decipiens Lovell and Cockerell, 1907. Psyche 14: 19. ♂.
Taxonomy: Titus, 1906. Ent. Soc. Wash. Proc. 7: 150.

montivaga Cresson. N. S. to N. C., west to B. C. and Calif., Mexico.
Megachile montivaga Cresson, 1878. Amer. Ent. Soc. Trans. 7: 124. ♀ ♂.

nivalis Friese. Que., Maine, Ont., Man., Minn., Alaska, Yukon, N.W.T., B. C., Alta., Mont., Wyo., Colo., Idaho, Wash., Oreg.
Megachile nivalis Friese, 1903. Ztschr. System. Hym. Dipt. 3: 246. ♀ (♂ misdet.).
Megachile (*Anthemois*) *santiamensis* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 311. ♀.
Taxonomy: Mitchell, 1942. Pan-Pacific Ent. 18: 115, ♂ ♀.

relativa Cresson. Newfoundland to N. C., west to N.W.T. and Calif.
Megachile relativa Cresson, 1878. Amer. Ent. Soc. Trans. 7: 126. ♀.
Megachile (*Xanthosarus*) *exclamans* Viereck, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 743. ♀.
Megachile aspera Mitchell, 1924. Elisha Mitchell Sci. Soc. Jour. 40: 158. ♀.

Subgenus EUTRICHARAEA Thomson

Megachile subg. ***Eutricharaea*** Thomson, 1872. Hym. Scand., v. 2, p. 228.
Type: ***Apis argentata*** Fabricius. Monob.
Megachile subg. ***Paramegachile*** Friese, 1899. Die Bienen Europas, v. 5, p. 34.
Type: ***Apis argentata*** Fabricius. Desig. by Mitchell, 1934.
Megachile subg. ***Paramegalochila*** Schulz, 1906. Spolia Hym., p. 71. Emend.

apicalis Spinola. Canada, N. J., Va., presumably introduced from Europe.
Megachile apicalis Spinola, 1808. Insectorum Liguriae, v. 2, p. 259. ♀.
Megachile mixta Costa, 1863. Accad. delle Sci. Fis. e Mat. Napoli, Atti 1 (2): 44. ♀.
Megachile dimidiati-ventris Dours, 1873. Rev. Mag. Zool. (3) 1: 300. ♀.
Megachile virginiana Mitchell, 1926. Amer. Ent. Soc. Trans. 52: 113. ♀.

rotundata (Fabricius). D. C., Va., presumably introduced from Europe.
Apis rotundata Fabricius, 1787. Mantissa Insectorum, v. 1, p. 303. Sex?
Apis pacifica Panzer, 1798. Faunae Ins. German., v. 55, p. 16. [♀.]
Megachile imbecilla Gerstaecker, 1869. Stettin. Ent. Ztg. 30: 359. ♀.
Taxonomy: Krombein, 1948. Ent. Soc. Wash. Proc. 50: 14.

Subgenus DELOMEGACHILE Viereck

Megachile subg. ***Delomegachile*** Viereck, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22: 745.
Type: (***Megachile vidua*** Smith)=***Megachile frigida*** Smith. Monob.

addenda Cresson. Ont. and N. H. to Fla., west to Mich., Kans., Tex., and Calif.
Megachile addenda Cresson, 1878. Amer. Ent. Soc. Trans. 7: 124. ♀ ♂.
Megachile manumuskin Viereck, 1902. Canad Ent. 34: 328. ♀ ♂.

cressonii Dalla Torre. Wash., Nev., Ariz.
Megachile carbonaria Cresson, 1879. Amer. Ent. Soc. Trans. 7: 208. ♀ Preocc.
Megachile cressonii Dalla Torre, 1896. Cat. Hym., v. 10, p. 427. N. name.
Megachile vandykei Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 205. ♀.

frigida appalachensis Mitchell.
Megachile (Delomegachile) vidua var. ***appalachensis*** Mitchell, 1935. Amer. Ent. Soc. Trans. 61: 205. ♀ ♂.

frigida frigida Smith. Alaska and Canada, south to Pa., Mich., and Nebr. and in the mts. to N. Mex., Ariz. and cent. Calif.
Megachile frigida Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 193. ♂.
Megachile vidua Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 192. ♀.
Megachile monardarum Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 6: 11. ♀.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 338.—Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 337.

gemula Cresson. Que. to N. C., west to Ill., Nebr., N. Mex., and Calif., north to B. C. and N.W.T., principally montane n south. part of range.
Megachile gemula Cresson, 1878. Amer. Ent. Soc. Trans. 7: 118. ♂ (♀ misdet.).
Megachile avaria Cresson, 1878. Amer. Ent. Soc. Trans. 7: 123. ♂.
Megachile Vancouveriensis Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 424. ♂. The name *vancouveriensis* may be applicable to a western subspecies.
Megachile albula Lovell and Cockerell, 1907. Psyche 14: 18. ♂.
Megachile (Delomegachile) gemula var. ***fulvogemula*** Mitchell, 1936. Amer. Ent. Soc. Trans. 61: 185. ♀.
Taxonomy: Titus, 1906. Ent. Soc. Wash. Proc. 7: 151.

giliae Cockerell. Alaska, N.W.T., B. C., Alta., Colo.
Megachile giliae Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 452. ♂.

ingenua Cresson. Pa. to Ga., west to Ill. On flowers of *Tephrosia*.
Megachile ingenua Cresson, 1878. Amer. Ent. Soc. Trans. 7: 122. ♂.
Megachile tephrosiana Mitchell, 1927. Psyche 34: 179. ♀.

melanophaea calogaster B. C. and Idaho to mts. of cent. Calif.
Megachile calogaster Cockerell, 1898. Acad. Nat. Sci. Phila. Proc. 50: 55. ♂ ♀.

melanophaea melanophaea Smith. N. S. to N. Y., west to N.W.T., Alta. and Colo., ?Ga.
Megachile melanophaea Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 191 ♀ ♂.
Megachile canadensis Friese, 1903. Ztschr. System. Hym. Dipt. 3: 248.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 336.

melanophaea submelanophaea Mitchell. South. Calif., mts.
Megachile (Delomegachile) melanophaea var. *submelanophaea* Mitchell, 1935. Amer. Ent. Soc. Trans. 61: 197. ♀.

melanophaea wootoni Cockerell. Mont., Nebr., Colo., N. Mex.
Megachile wootoni Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 1: 125. ♂.

mucida Cresson. N. J., N. C., Ga., Tex.
Megachile mucida Cresson, 1878. Amer. Ent. Soc. Trans. 7: 118. ♂ (♀ misdet.).
Megachile mucida semimucida Cockerell, 1909. Ann. Mag. Nat. Hist. (8) 4: 26. ♀ ♂.
Megachile audax Mitchell, 1924. Elisha Mitchell Sci. Soc. Jour. 40: 161. ♂.

rohweri Cockerell. Colo., Utah, Ariz. Perhaps a synonym of *melanophaea wootoni* Ckll.
Megachile wootoni rohweri Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 453. ♀.
Megachile pseudolatimanus Strand, 1917. Arch. f. Naturgesch. 83 (abt. A, h. 11): 65. ♂.
Megachile tuala Strand, 1917. Arch. f. Naturgesch. 83 (abt. A, h. 11): 66. ♀.

Subgenus PHAENOSARUS Mitchell

Megachile subg. *Phaenosarus* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 303, 309.
Type: *Megachile fortis* Cresson. Orig. desig.

agustini Cockerell. Colo., N. Mex., Utah, Ariz.
Megachile agustini Cockerell, 1905. Ent. News 16: 82. ♂.

fortis Cresson. Iowa, La., S. Dak., Nebr., Kans., Tex., Colo., N. Mex.
Megachile fortis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 262. ♂.
Megachile emoryi Cockerell, 1904. Entomologist 37: 7. ♀.
Megachile fortis var. *vestali* Cockerell, 1913. Ann. Mag. Nat. Hist. (8) 11: 530. ♂.

subfortis Mitchell. Ariz.
Megachile (Phaenosarus) subfortis Mitchell, 1936. Amer. Ent. Soc. Trans. 62: 145. ♂.

Subgenus MEGACHILOIDES Mitchell

Megachiloides Mitchell, 1924. Elisha Mitchell Sci. Soc. Jour. 40: 154.
Type: *Megachiloides oenotherae* Mitchell. Monob.

amica Cresson. Kans., Tex.
Megachile amica Cresson, 1872. Amer. Ent. Soc. Trans. 4: 265. ♂.

oenotherae (Mitchell). N. J., N. C., Okla., Tex. On flowers of *Oenothera*.
Megachiloides oenotherae Mitchell, 1924. Elisha Mitchell Sci. Soc. Jour. 40: 154. ♀ ♂.

umatillensis (Mitchell). Wash., Utah, Colo.
Megachiloides umatillensis Mitchell, 1927. Psyche 34: 118. ♂ ♀.

Subgenus DEROTROPIS Mitchell

Megachile subg. *Derotropis* Mitchell, 1936. Amer. Ent. Soc. Trans. 62: 119, 156.
Type: *Megachile pascoensis* Mitchell. Orig. desig.
Key: Mitchell, 1944. Pan-Pacific Ent. 20: 142–144.

alamosana Mitchell. Oreg., Wyo., Colo.
Megachile (*Xeromegachile*) *alamosana* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 329. ♂.

anograe Cockerell. Mont., Wyo., Nebr., Colo., Tex., Oreg., Calif.
Megachile anograe Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 1: 261. ♀.

astragali Mitchell. Calif. (Mojave Desert).
Megachile (*Derotropis*) *astragali* Mitchell, 1938. Pan-Pacific Ent. 14: 174. ♂ ♀.

gravita Mitchell. Wash., Oreg., Calif.
Megachile (*Xeromegachile*) *gravita* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 322. ♂.
Megachile (*Xeromegachile*) *astata* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 345. ♀.

laurita Mitchell. Wash., Oreg.
Megachile laurita Mitchell, 1927. Psyche 34: 115. ♀.

melanderi Mitchell. Tex.
Megachile (*Derotropis*) *melanderi* Mitchell, 1944. Pan-Pacific Ent. 20: 140. ♀.

pascoensis Mitchell. Mont., Idaho, Wash., Calif.
Megachile (*Xeromegachile*) *bakeri* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 316. ♂. Preocc.
Megachile (*Xeromegachile*) *pascoensis* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 320. ♂.
Megachile (*Xeromegachile*) *gabrielensis* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 346. ♀.

semilaurita Mitchell. Utah.
Megachile laurita semilaurita Mitchell, 1927. Psyche 34: 116. ♀.

subanograe Mitchell. Tex., Wyo., Utah, Nev., east. Calif.
Megachile (*Megachiloides*) *subanograe* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 344. ♀.

sublaurita Mitchell. Utah.
Megachile laurita sublaurita Mitchell, 1927. Psyche 34: 117. ♀.

xerophila Cockerell. South. Calif., deserts.
Megachile xerophila Cockerell, 1933. Pan-Pacific Ent. 9: 27. ♀.

yumensis Mitchell. Ariz.
Megachile (*Derotropis*) *yumensis* Mitchell, 1944. Pan-Pacific Ent. 20: 141. ♀.

Subgenus XEROMEGACHILE Mitchell

Megachile subg. *Xeromegachile* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 302, 309.
Type: *Megachile integra* Cresson. Orig. desig.

alata Mitchell. South. and east. Calif.
Megachile (*Xeromegachile*) *alata* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 324. ♂.
Megachile (*Xeromegachile*) *redlandica* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 331 ♀. N. syn. (Timberlake).

bradleyi Mitchell. Utah, Nev.
Megachile (*Xeromegachile*) *bradleyi* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 340. ♀.

brimleyi Mitchell. N. C., Fla.
Megachile brimleyi Mitchell, 1926. Amer. Ent. Soc. Trans. 52: 114. ♂.

bruneri Mitchell. Colo., east. Calif.
Megachile (*Xeromegachile*) *bruneri* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 328. ♂.

casadae Cockerell. S. Dak., Nebr., Okla., Tex., Wyo., Colo., N. Mex., Utah.
Megachile casadae Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 1: 127. ♂.
Megachile populi Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 6: 17. ♀.
Megachile opuntiarum Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 229. ♀.
Megachile austinensis Mitchell, 1927. Psyche 34: 105. ♀.

coloradensis Mitchell. Colo.
Megachile (*Xeromegachile*) *coloradensis* Mitchell, 1936. Amer. Ent. Soc. Trans. 62: 379. ♀.

dakotensis Mitchell. Minn., Iowa, Ill., Mont., N. Dak., S. Dak., Nebr., Tex.
Megachile dakotensis Mitchell, 1926. Psyche 33: 164. ♂ ♀.

deflexa Cresson. N. C., Fla., Nebr., Kans., Okla., Tex.
Megachile deflexa Cresson, 1878. Amer. Ent. Soc. Trans. 7: 125. ♂.
Megachile megagyna Cockerell, 1909. Canad. Ent. 41: 394. ♀.
Megachile indianorum Cockerell, 1913. Ann. Mag. Nat. Hist. (8) 11: 533. ♂.
Megachile (*Xeromegachile*) *coreopsana* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 319. ♂.

dulciana Mitchell. South. Calif.
Megachile (*Xeromegachile*) *dulciana* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 343. ♀.

fucata Mitchell. Colo., N. Mex., Utah, Ariz., Calif., deserts.
Megachile (*Xeromegachile*) *fucata* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 323. ♂.
Megachile (*Xeromegachile*) *histrata* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 334. ♀. N. syn. (Timberlake).

hilata Mitchell. Colo., Utah, east. Calif.
Megachile (*Xeromegachile*) *hilata* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 332. ♀.

hookeri Cockerell. Colo., Utah.
Megachile hookeri Cockerell, 1915. Ann. Mag. Nat. Hist. (8) 15: 533. ♀.

impartita Mitchell. Colo., east. Calif.
Megachile (*Xeromegachile*) *impartita* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 333. ♀.

instita Mitchell. N. Mex., north. Mexico.
Megachile (*Xeromegachile*) *instita* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 326. ♂.

integra Cresson. N. J. to Fla., west to Ill., Kans., and Tex. On flowers of *Strophostyles*.
Megachile integra Cresson, 1878. Amer. Ent. Soc. Trans. 7: 121. ♂.
Megachile strophostylis Robertson, 1904. Canad. Ent. 36: 277. ♀.

integrella Mitchell. N. C., Fla.
Megachile integrella Mitchell, 1926. Amer. Ent. Soc. Trans. 52: 116. ♀.

inyoensis Mitchell. Calif.
Megachile (*Xeromegachile*) *inyoensis* Mitchell, 1942. Pan-Pacific Ent. 18: 117. ♀.

laguniana Mitchell. South. Calif.
Megachile (*Xeromegachile*) *laguniana* Mitchell, 1937. Amer. Ent. Soc. Trans. 63: 419. ♀.

latita Mitchell. Wyo., Colo.
Megachile (*Xeromegachile*) *latita* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 335. ♀.

legalis Cresson. Colo., Nev., Ariz., Wash., Oreg., east. Calif.
Megachile legalis Cresson, 1879. Amer. Ent. Soc. Trans. 7: 209. ♂.
Megachile (*Xeromegachile*) *couleeana* Mitchell, 1938. Pan-Pacific Ent. 14: 171. ♀.

manifesta Cresson. Alta., Mont., N. Dak. to N. Mex., Ariz., south. Calif.
Megachile manifesta Cresson, 1878. Amer. Ent. Soc. Trans. 7: 122. ♂.
Megachile chrysothamni Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 1: 262. ♀.

maurata Mitchell. Wyo., east. Calif.
Megachile (*Xeromegachile*) *maurata* Mitchell, 1936. Amer. Ent Soc. Trans. 62: 369. ♂.

micheneri Mitchell. Colo., Calif.
Megachile (*Xeromegachile*) *micheneri* Mitchell, 1936. Amer. Ent. Soc. Trans. 62: 373. ♂.

mojavensis Mitchell. South. and east. Calif., deserts.
Megachile (*Xeromegachile*) ***mojavensis*** Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 340. ♀.

mucorosa Cockerell. Nebr., Kans., Colo., Tex.
Megachile mucorosa Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 1: 265. ♂.

nelsoni Mitchell. Colo.
Megachile (*Xeromegachile*) ***nelsoni*** Mitchell, 1936. Amer. Ent. Soc. Trans. 62: 381. ♀.

nevadensis Cresson. Mont. and Wyo. to N. Mex., west to Wash. and Calif.
Megachile nevadensis Cresson, 1879. Amer. Ent. Soc. Trans. 7: 209. ♀ ♂.

oslari Mitchell. Colo.
Megachile (*Xeromegachile*) ***oslari*** Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 330. ♀.

pagosiana Mitchell. Colo.
Megachile (*Xeromegachile*) ***pagosiana*** Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 333. ♀.

palmensis Mitchell. South. Calif.
Megachile (*Xeromegachile*) ***palmensis*** Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 317. ♂.
Megachile (*Xeromegachile*) ***smithi*** Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 337. ♀.

parksi Mitchell. Tex.
Megachile (*Xeromegachile*) ***parksi*** Mitchell, 1936. Amer. Ent. Soc. Trans. 62: 346. ♀.

pseudonigra Mitchell. Oreg., Calif., Ariz.
Megachile pseudonigra Mitchell, 1927. Psyche 34: 112. ♀.

rubi Mitchell. N. C., Ga.
Megachile rubi Mitchell, 1924. Elisha Mitchell Sci. Soc. Jour. 40: 159. ♀.
Megachile neglecta Mitchell, 1924. Elisha Mitchell Sci. Soc. Jour. 40: 160. ♂.

seducta Mitchell. Calif.
Megachile (*Xeromegachile*) ***seducta*** Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 342. ♀.

soledadensis Cockerell. Tex., N. Mex., Ariz., south. Calif.
Megachile soledadensis Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 6: 12. ♂ ♀.

subnigra angelica Mitchell. Oreg., west. portions of Calif.
Megachile (*Xeromegachile*) ***angelica*** Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 318. ♂.
Megachile (*Xeromegachile*) ***blaisdelli*** Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 336. ♀.
Megachile (*Xeromegachile*) ***moschata*** Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 338. ♀. N. syn. (Timberlake).

subnigra subnigra Cresson. Mont., Wyo., Colo., Idaho, Nev., B. C., Wash., Oreg., Calif., restricted to high mts. in south. part of range.
Megachile subnigra Cresson, 1879. Amer. Ent. Soc. Trans. 7: 208. ♀ ♂.

toscata Mitchell. Colo.
Megachile (*Xeromegachile*) ***toscata*** Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 341. ♀.

victoriana Mitchell. Tex. (Victoria).
Megachile (*Xeromegachile*) ***victoriana*** Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 315. ♂.

wheeleri Mitchell. Sask., N. Dak., Colo. to B. C. and mts. of Calif.
Megachile wheeleri Mitchell, 1927. Psyche 34: 107. ♀.
Megachile spokanensis Mitchell, 1927. Psyche 34: 109. ♂.

wyomingensis Mitchell. Wyo.
Megachile (*Xeromegachile*) ***wyomingensis*** Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 327. ♂.

Subgenus ARGYROPILE Mitchell

Megachile subg. *Argyropile* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 302, 308.
Type: *Megachile parallela* Smith. Orig. desig.
Key: Mitchell, 1943. Pan-Pacific Ent. 19: 16.

asterae Mitchell. Utah.
Megachile (*Argyropile*) *asterae* Mitchell, 1943. Pan-Pacific Ent. 19: 13. ♀.

nebraskana Mitchell. Nebr., Kans., Tex., Wyo., Colo., N. Mex., Utah.
Megachile (*Argyropile*) *nebraskana* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 347. ♀.

parallela facunda Cresson. Sask., N. Dak., Nebr., Tex., west to B. C., Calif., Mexico.
Megachile facunda Cresson, 1872. Amer. Ent. Soc. Trans. 4: 266. ♂.
Megachile verbesinae Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 1: 264. ♀.
?Megachile (*Argyropile*) *parallela* var. *rita* Mitchell, 1937. Amer. Ent. Soc. Trans. 63: 53. ♀.

parallela parallela Smith. N. C., Ga., Ala., Fla., Ind., Ill., Iowa, Mo., Ark., Miss. On flowers of Heliantheae; Astereae.
Megachile parallela Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 191. ♂.
Megachile sexdentata Robertson, 1895. Amer. Ent. Soc. Trans. 22: 125. ♂.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 337.

rossi Mitchell. Ariz.
Megachile (*Argyropile*) *rossi* Mitchell, 1943. Pan-Pacific Ent. 19: 14. ♀.

sabinensis Mitchell. Ariz., Tex.
Megachile (*Argyropile*) *sabinensis* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 348. ♀.

subparallela Mitchell. Ariz.
Megachile (*Argyropile*) *subparallela* Mitchell, 1944. Pan-Pacific Ent. 20: 132. ♀.

townsendiana Cockerell. N. C., Fla., Okla., Tex., Colo., N. Mex., Ariz., southeast. Calif., Mexico.
Megachile townsendiana Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 1: 129. ♂.
Megachile bishoppi Cockerell, 1915. Ann. Mag. Nat. Hist. (8) 15: 535. ♂.

tulariana Mitchell. Calif.
Megachile (*Argyropile*) *parallela* var. *tulariana* Mitchell, 1937. Amer. Ent. Soc. Trans. 63: 53. ♀.

Subgenus XANTHOSARUS Robertson

Xanthosarus Robertson, 1903. Amer. Ent. Soc. Trans. 29: 168.
Type: *Megachile latimanus* Say. Monob. and orig. desig.

cochisiana Mitchell. N. Mex., Ariz., Nev., south. and east. Calif., Mexico.
Megachile (*Xanthosarus*) *cochisiana* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 313. ♂.
Taxonomy: Mitchell, 1942. Pan-Pacific Ent. 18: 116, ♀.

comata Cresson. Kans., Tex., Colo., N. Mex., Ariz., Calif., Mexico.
Megachile comata Cresson, 1872. Amer. Ent. Soc. Trans. 4: 262. ♂.
Megachile paratexana Mitchell, 1930. Amer. Ent. Soc. Trans. 56: 226. ♀.

dentitarsus Sladen. Alta., Wash., Mont., N. Dak., S. Dak., Wyo., Nebr., Colo., Utah, N. Mex.
Megachile diligens Sladen, 1918. Agr. Gaz. Canada 5: 125. ♂ ♀. Preocc.
Megachile dentitarsus Sladen, 1919. Canad. Ent. 51: 85. N. name.
Taxonomy: Sladen, 1918. Canad. Ent. 50: 303.

innupta Cockerell. Colo.
Megachile innupta Cockerell, 1915. Ann. Mag. Nat. Hist. (8) 15: 534. ♀.

latimanus Say. N. S. to Ga., west to Alta., Wyo., Colo.
Megachile latimanus Say, 1823. West. Quart. Rptr. 2: 81. ♂.
Megachile femorata Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 188. ♂.
Megachile acuta Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 192. ♀.

pallidiana Mitchell. N. Mex.
Megachile (*Xanthosarus*) *pallidiana* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 314. ♀.

perihirta Cockerell. Alta. to Nebr. and Tex., west to B. C. and Calif., Mexico.
Megachile perihirta Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 1: 126. ♂.
Megachile latimanus grindeliarum Cockerell, 1904. Ent. News 15: 33. ♀.

Subgenus LEPTORACHIS Mitchell

Megachile subg. *Leptorachis* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 301, 308.
Type: *Megachile petulans* Cresson. Orig. desig.

petulans Cresson. N. J. to Fla., west to N. Dak., Nebr., and Ariz., Mexico.
Megachile petulans Cresson, 1878. Amer. Ent. Soc. Trans. 7: 127. ♂.
Megachile mexicana Cresson, 1878. Amer. Ent. Soc. Trans. 7: 127. ♀ ♂.

Subgenus PSEUDOCENTRON Mitchell

Megachile subg. *Pseudocentron* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 303, 307.
Type: *Megachile pruina* Smith. Orig. desig.

bidentata (Fabricius). Supposedly North American, but probably Neotropical.
Andrena bidentata Fabricius, 1775. Syst. Ent., p. 377. ♂.

morio Smith. "North America."
Megachile morio Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 189. ♀.
Probably a form of *pruina*.

pruina nigropinguis Mitchell. Tex.
Megachile (*Pseudocentron*) *pruina* var. *nigropinguis* Mitchell, 1937. Amer. Ent. Soc. Trans. 63: 68. ♀.

pruina pruina Smith. N. C., Ga., Fla., Bermuda.
Megachile pruina Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 190. ♀.
Megachile pinguis Cresson, 1878. Amer. Ent. Soc. Trans. 22: 125. ♂.
Megachile floridana Robertson, 1895. Amer. Ent. Soc. Trans. 22: 125. ♂.
Megachile shermani Mitchell, 1924. Elisha Mitchell Sci. Soc. Jour. 40: 163. ♂.
Megachile pruina var. *bermudensis* Mitchell, 1929. Psyche 36: 92. ♀.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 337.

sidalceae Cockerell. Tex., N. Mex., Ariz., south. Calif., Mexico.
Megachile sidalceae Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 158. ♂.
Megachile abducta Mitchell, 1926. Amer. Ent. Soc. Trans. 52: 111. ♂.

Subgenus ACENTRON Mitchell

Megachile subg. *Acentron* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 303, 307.
Type: *Megachile albitarsis* Cresson. Orig. desig.

albitarsis Cresson. N. C., Ga., Fla., Ala., Miss., La., Tex., N. Mex., Ariz., Mexico.
Megachile albitarsis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 263. ♂.
Megachile optiva Cresson, 1872. Amer. Ent. Soc. Trans. 4: 268. ♀.
Megachile newelli Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 1: 262. ♀.
Megachile kallstraemiae Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 1: 264. ♀.

Subgenus MELANOSARUS Mitchell

Megachile subg. *Melanosarus* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 303, 307.
Type: *Megachile xylocopoides* Smith. Orig. desig.

floridensis Mitchell. South. Fla.
Megachile (*Melanosarus*) *floridensis* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 349. ♂ ♀.

xylocopoides Smith. Md., N. C., Ga., Fla., Ala., Miss., La., Tex.
Megachile xylocopoides Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 189. ♀ ♂.

Subgenus SAYAPIS Titus

Gnathocera Provancher, 1883. Nat. Canad. 13: 232. Preocc.
Type: (***Gnathocera cephalica*** Provancher)=***Megachile pugnatus*** Say. Monob.
Ceratias Robertson, 1903. Amer. Ent. Soc. Trans. 29: 168. Preocc.
Type: ***Megachile pugnatus*** Say. Orig. desig.
Sayapis Titus, 1905. Ent. Soc. Wash. Proc. 7: 154. Proposed to replace *Gnathocera* Provancher and *Ceratias* Robertson.

dentipes Vachal. South. Tex. to Paraguay.
Megachile dentipes Vachal, 1909. Rev. de Ent. 28: 12. ♂.
Megachile poculifera Cockerell, 1919. U. S. Natl. Mus. Proc. 55: 217. ♂.

fidelis Cresson. Mont. and S. Dak., Nebr., N. Mex., west to Idaho, Oreg., Calif.
Megachile fidelis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 120. ♀ ♂.
Megachile fidelis var. ***concinnula*** Cockerell, 1899. Entomologist 32: 158. ♂.

frugalis frugalis Cresson. Pa., Del., W. Va., Va., N. C., Ga., Fla., Mo., Tex., Ariz., Mexico.
Megachile frugalis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 266. ♂.

frugalis pseudofrugalis Mitchell. Ariz., Calif.
Megachile (Sayapis) frugalis var. ***pseudofrugalis*** Mitchell, 1937. Amer. Ent. Soc. Trans. 63: 186. ♂ ♀.

helianthi Cockerell. Colo.
Megachile helianthi Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 1: 259. ♀.

inimica inimica Cresson. Fla., Tex.
Megachile inimica Cresson, 1872. Amer. Ent. Soc. Trans. 4: 267. ♀.

inimica jacumbensis Mitchell. Calif., Lower Calif.
Megachile inimica var. ***jacumbensis*** Mitchell, 1927. Psyche 34: 109.

inimica sayi Cresson. Pa., Va., N. C., S. C., Ga., Fla., Ohio, Ind., Ill., Iowa, Nebr., Kans., Ark., Tex., N. Mex., Colo., Ariz., Idaho, Mexico. On flowers of Heliantheae, Cynarieae, Eupatorieae.
Megachile sayi Cresson, 1878. Amer. Ent. Soc. Trans. 7: 119. ♂ ♀.
Megachile heterodonta Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 6: 18. ♀.
Megachile sayi var. ***sancta*** Cockerell, 1912. Ann. Mag. Nat. Hist. (8) 10: 487. ♂.
Megachile sayi paludicola Cockerell, 1911. U. S. Natl. Mus. Proc. 40: 254. ♀.

mellitarsis Cresson. B. C., Wash., Oreg., Calif., Nev., Colo., N. Mex.
Megachile mellitarsis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 121. ♂.
Megachile terrestris Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 1: 260. ♀. Preocc.
Megachile geophila Cockerell, 1908. Canad. Ent. 40: 460. N. name.

newberryae Cockerell. N. Mex., Ariz., Calif., Mexico, deserts.
Megachile newberryae Cockerell, 1900. Entomologist 33: 244. ♂.
Megachile howardi Cockerell, 1919. U. S. Natl. Mus. Proc. 55: 216. ♂ (♀ misdet.). N. syn. (Mitchell).

policaris Say. Fla., La., Nebr., Kans., Okla., Tex., Colo., N. Mex., Ariz., Calif., Mexico. On flowers of Heliantheae.
Megatchile policaris Say, 1831. Descr. New Spp. No. Amer. Ins. Found in La. by J. Barabino, p. 17. ♀.
Megachile pollicaris Say, 1837. Boston Jour. Nat. Hist. 1: 406. ♂. Emend.
Megachile grandis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 268. ♀. Preocc.
Megachile pollicaris var. ***perexima*** Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 6: 12. ♂.
Megachile vallorum Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 6: 18. ♀.

pugnata pomonae Cockerell. Nev., Calif.
Megachile pugnata var. ***pomonae*** Cockerell, 1916. Ann. Mag. Nat. Hist. (8) 17: 278. ♀.

pugnata pugnata Say. U. S. and south. Canada except lower Mississippi Valley, Gulf Coast, and Calif., principally at moderate to high altitudes in southern part of range. On flowers of Heliantheae; Cynarieae.
Megachile pugnatus Say, 1837. Boston Jour. Nat. Hist. 1: 408. ♂ ♀.

Megachile scobiculata Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 191. ♂.
Megachile bucephala Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 193. ♀.
Megachile disparilis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 264. ♂.
Megachile lucrosa Cresson, 1872. Amer. Ent. Soc. Trans. 4: 267. ♀.
Gnathocera cephalica Provancher, 1882. Nat. Canad. 13: 233. ♀.
Megachile temporalis Friese, 1903. Ztschr. System. Hym. Dipt. 3: 247. ♀ (♂ misdet.).
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 337.

Subgenus CHELOSTOMOIDES Robertson

Chelostomoides Robertson, 1901. Canad. Ent. 33: 231.
Type: (*Megachile rufimanus* Robertson)=*Chelostoma rugifrons* Smith. Monob. and orig. desig.
Oligotropus Robertson, 1903. Amer. Ent. Soc. Trans. 29: 168.
Type: *Oligotropus campanulae* Robertson. Monob. and orig. desig.
Gnathodon Robertson 1903. Amer. Ent. Soc. Trans. 29: 168. Preocc.
Type: *Megachile georgica* Cresson. Monob. and orig. desig.
Sarogaster Robertson, 1918. Ent. News 29: 92. Proposed to replace *Gnathodon* Robertson.

angelarum Cockerell. Wash., Oreg., Calif., Nev., Ariz.
Megachile angelarum Cockerell, 1902. South. Calif. Acad. Sci. Bul. 1: 70. ♀.

browni Mitchell. Ariz., desert.
Megachile (*Chelostomoides*) *browni* Mitchell, 1934. Amer. Ent. Soc. Trans. 53: 354. ♂.

campanulae campanulae (Robertson). Mass. to Ga., west to Iowa, Nebr., and Tex. On flowers of *Campanula*.
Oligotropus campanulae Robertson, 1903. Amer. Ent. Soc. Trans. 29: 171. ♀ ♂.

campanulae wilmingtoni (Mitchell). N. C. (coastal), Fla.
Oligotropus wilmingtoni Mitchell, 1924. Elisha Mitchell Sci. Soc. Jour. 40: 156. ♀ ♂.

davidsoni Cockerell. South. Calif. On flowers of *Dicentra*.
Megachile davidsoni Cockerell, 1902. South. Calif. Acad. Sci. Bul. 1: 70. ♀.
Megachile occidentalis var. *leucotricha* Cockerell, 1902. South. Calif. Acad. Sci. Bul. 1: 137. ♂.

duplexa Mitchell. N. Mex., south. Calif., deserts.
Megachile (*Chelostomoides*) *duplexa* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 353. ♂.

exilis exilis Cresson. Tex., N. Mex., Ariz.
Megachile exilis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 265. ♂.
Megachile studiosa Cresson, 1872. Amer. Ent. Soc. Trans. 4: 269. ♀.

exilis parexilis Mitchell. Md., Va., N. C., Ga., Ind., Ala., Miss., Ark., Tex.
Megachile (*Chelostomoides*) *exilis* var. *parexilis* Mitchell, 1937. Amer. Ent. Soc. Trans. 63: 393. ♂.

felipiana Mitchell. Ariz., south. Calif.
Megachile (*Chelostomoides*) *felipiana* Mitchell, 1937. Amer. Ent. Soc. Trans. 63: 405. ♀.

georgica Cresson. Md., Va., N. C., S. C., Ga., Fla., Miss., Ark., Tex. On flowers of Leguminosae.
Megachile georgica Cresson, 1878. Amer. Ent. Soc. Trans. 7: 123. ♀ ♂.
Megachile penicillata Cockerell, 1915. Ann. Mag. Nat. Hist. (8) 15: 536. ♀.

lobatifrons Cockerell. N. Mex., Ariz., south. and east. Calif., Mexico.
Megachile lobatifrons Cockerell, 1924. Calif. Acad. Sci. Proc. (4) 12: 547. ♀ ♂.

longula (Fox). Tex., N. Mex., Ariz., Calif., Mexico, deserts.
Lithurgus longulus Fox, 1893. Calif. Acad. Sci. Proc. (2) 4: 20. ♀.
Megachile chilopsidis Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 6: 17. ♀.

manni Mitchell. Ariz.
Megachile (*Chelostomoides*) *manni* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 355. ♀ ♂.

occidentalis Fox. Tex., N. Mex., Ariz., south. Calif., Mexico, deserts.
Megachile occidentalis Fox, 1894. Calif. Acad. Sci. Proc. (2) 4: 117. ♂.
Megachile prosopidis Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 6: 16. ♀.
Megachile prosopidis var. *testudinis* Cockerell, 1924. Calif. Acad. Sci. Proc. (4) 12: 550. ♀.

odontostoma Cockerell. Ariz., south. Calif., Mexico, deserts.
Megachile odontostoma Cockerell, 1924. Calif. Acad. Sci. Proc. (4) 27: 550. ♀.

pratti Cockerell. West Tex., N. Mex., Ariz., Calif., Mexico, deserts.
Megachile pratti Cockerell, 1913. Ann. Mag. Nat. Hist. (8) 11: 541. ♂ ♀.
Megachile discorhina Cockerell, 1924. Calif. Acad. Sci. Proc. (4) 12: 549. ♀.

rugifrons (Smith). N. C., Ga., Fla., Mich., Ill., Nebr., Kans., Ark.
Chelostoma rugifrons Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 220. ♀.
Chelostomoides rugifrons Cockerell, 1904. Canad. Ent. 36: 301. ♀.
Megachile rufimanus Robertson, 1891. Amer. Ent. Soc. Trans. 18: 65. ♀ ♂.

spinotulata Mitchell. N. Mex., Ariz., south. Calif.
Megachile (*Chelostomoides*) *spinotulata* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 357. ♀ ♂.

subexilis Cockerell. Nebr., Colo., N. Mex., Utah, Ariz., Nev., Calif.
Megachile subexilis Cockerell, 1908. Entomologist 41: 292. ♀.
Megachile semiexilis Cockerell, 1908. Entomologist 41: 292. ♀ ♂.

subspinotulata Mitchell. Ariz.
Megachile (*Chelostomoides*) *subspinotulata* Mitchell, 1934. Amer. Ent. Soc. Trans. 59: 360. ♀.

Nomina Nuda in Megachile

Megachile coloradensis Uhler, 1877. U. S. Geol. Geog. Survey, Bul. 3: 784.

Megachile consimilis Evans, 1896. Canad. Ent. 28: 13.

Genus COELIOXYS Latreille[74]

Coelioxys Latreille, 1809. Gen. Crust. Ins., v. 4, p. 166.
Type: (*Anthophora conica* Fabricius = *Apis conica* Linnaeus) =*Apis quadridentata* Linnaeus. Desig. by Latreille, 1810.
Coelioxys subg. ***Paracoelioxys*** Gribodo, 1884. Soc. Ent. Ital. Bol. 16: 274.
Type: *Coelioxys montandoni* Gribodo. Monob.
Paracoelioxys Radoszkowski 1893. Soc. Ent. Rossica Horae 27: 53. Preocc.
Type: *Paracoelioxys barrei* Radoszkowski. Desig. by Sandhouse, 1943.
Coelioxys subg. ***Liothryapis*** Cockerell, 1911. U. S. Natl. Mus. Proc. 40: 246.
Type: *Coelioxys apicata* Smith(=*Coelioxys decipiens* Spinola). Monob.
Synopses: Cockerell, 1905. Psyche 12: 87.—Cockerell, 1912. Canad. Ent. 44: 168.—Crawford, 1914. Ann. Ent. Soc. Amer. 7: 148.—Sladen, 1915. Canad. Ent. 47: 205 (Ontario).—Cockerell, 1921. Amer. Mus. Novitates 21: 7.—Cockerell, 1925. Pan-Pacific Ent. 1: 150.

alternata Say. Ont. and Ind. to Nev.
Coelioxys alternata Say, 1837. Boston Jour. Nat. Hist. 1: 401. ♀ ♂.

angelica Cockerell. Calif.
Coelioxys angelica Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 15: 201. ♀.

angulifera Cockerell. Calif.
Coelioxys angulifera Cockerell, 1916. Pomona Col. Jour. Ent. Zool. 8: 61. ♀ ♂.

apacheorum Cockerell. N. Mex., Colo., Utah, Calif.
Coelioxys apacheorum Cockerell, 1900. Canad. Ent. 32: 299. ♀.
Coelioxys fragariae Cockerell, 1912. Canad. Ent. 44: 167. ♂. N. syn. (Timberlake).

[74] By E. Gorton Linsley, University of California.

aperta Cresson. Colo.
Coelioxys aperta Cresson, 1878. Amer. Ent. Soc. Trans. 7: 95, fig. ♀.
Taxonomy: Cockerell, 1921. Amer. Mus. Novitates 21: 4, ♂.

asclepiadis Cockerell. Ariz.
Coelioxys asclepiadis Cockerell, 1925. Pan-Pacific Ent. 1: 149. ♂.

asteris Crawford. Tex.
Coelioxys asteris Crawford, 1914. Ent. Soc. Amer. Ann. 7: 156, fig. ♀.

banksi Crawford. Va., Ind.
Coelioxys banksi Crawford, 1914. Ent. Soc. Amer. Ann. 7: 155. ♀.

bisoncornua Hill. Nebr.
Coelioxys bisoncornua Hill, 1936. Ent. News 47: 205. ♀ ♂.

catalinica Cockerell. South. Calif. (Catalina Isl.).
Coelioxys catalinica Cockerell, 1940. South. Calif. Acad. Sci. Bul. 38: 136. ♂.

cockerelli Crawford. Colo.
Coelioxys cockerelli Crawford, 1915. Insecutor Inscitiae Menstruus 3: 108. ♀.

coloradensis Cresson. Colo.
Coelioxys coloradensis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 98. ♂.

comstockii Cresson. N. Y.
Coelioxys comstockii Cresson, 1878. Amer. Ent. Soc. Trans. 7: 96. ♀.

coquilletti Crawford. Calif.
Coelioxys coquilletti Crawford, 1914. Ent. Soc. Amer. Ann. 7: 157, fig. ♀.
Taxonomy: Cockerell, 1925. Pan-Pacific Ent. 1: 145, ♂.

crassula Cockerell. Colo.
Coelioxys crassula Cockerell, 1919. Canad. Ent. 51: 27. ♀.

deani Cockerell. Colo., Calif.
Coelioxys deani Cockerell, 1909. Ent. News 20: 8. ♂.

denverensis Cockerell. Colo.
Coelioxys grindeliae denverensis Cockerell, 1912. Canad. Ent. 44: 166. ♂.

deplanata Cresson. Kans. to Calif. and Wash.
Coelioxys deplanata Cresson, 1878. Amer. Ent. Soc. Trans. 7: 96. ♀.

dolichos Fox. Fla.
Coelioxys dolichos Fox, 1890. Ent. News 1: 107. ♀.

dubitata Smith. Conn. to Fla. and Colo.
Coelioxys dubitata Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 272. ♀.
Coelioxys dubitata var. *melanopoda* Viereck, 1917 (1916). Conn. State Geol. and Nat. Hist. Survey Bul. 22: 747. ♂.

edita Cresson. Tex., Colo.
Coelioxys edita Cresson, 1872. Amer. Ent. Soc. Trans. 4: 272. ♂.

erysimi Cockerell. Colo.
Coelioxys erysimi Cockerell, 1912. Canad. Ent. 44: 166. ♂.

floridana Cresson. Fla.
Coelioxys floridana Cresson, 1878. Amer. Ent. Soc. Trans. 7: 98. ♂.

funerarea Smith. East. Canada.
Coelioxys funerarea Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 272. ♂.

germana Cresson. Ill., Ohio.
Coelioxys germana Cresson, 1878. Amer. Ent. Soc. Trans. 7: 102. ♀.

gilensis Cockerell. Ariz., Calif.
Coelioxys gilensis Cockerell, 1896. N. Mex. Univ. Bul. 1: 62. ♂.

gonaspis Cockerell. Baja Calif., south. Calif.
Coelioxys gonaspis Cockerell, 1924. Calif. Acad. Sci. Proc. (4) 12: 560. ♀.

grindeliae Cockerell. N. Mex., Colo., Ariz., Calif. Host: ?*Megachile perihirta* Cockerell.
Coelioxys grindeliae Cockerell, 1900. Canad. Ent. 32: 300. ♀ ♂.
Biology: Hicks, 1925. Colo. Univ., Studies 15: 237.

hicksi Cockerell. Colo. Host: *Megachile sapellonis* Cockerell.
Coelioxys hicksi Cockerell, 1934. Amer. Mus. Novitates 732: 3. ♀.

hirsutissima Cockerell. Calif.
Coelioxys hirsutissima Cockerell, 1912. Canad. Ent. 44: 168. ♂.

hunteri Crawford. Tex.
Coelioxys hunteri Crawford, 1914, Ent. Soc. Amer. Ann. 7: 151, figs. ♀.

hypodonta Cockerell. Calif.
Coelioxys hypodonta Cockerell, 1925. Pan-Pacific Ent. 1: 150. ♂.

immaculata Cockerell. Ind.
Coelioxys immaculata Cockerell, 1912. Canad. Ent. 44: 165. ♂.

insita Cresson. Tex.
Coelioxys insita Cresson, 1872. Amer. Ent. Soc. Trans. 4: 273. ♀.

lamellicauda Cockerell. Colo.
Coelioxys lamellicauda Cockerell, 1921. Amer. Mus. Novitates 21: 6. ♂.

lateralis Cresson. Pa.
Coelioxys lateralis Cresson, 1864. Ent. Soc. Phila. Proc. 2: 405. ♂.
Taxonomy: Cockerell, 1921. Amer. Mus. Novitates 21: 5, ♂.

lucrosa Cresson. Ont., N. Y., Wis., Colo. Host: *Megachile vidua* Smith.
Coelioxys lucrosa Cresson, 1878. Amer. Ent. Soc. Trans. 7: 97. ♀.
Biology: Graenicher, 1927. Ent. News 38: 233.

lutzi Cockerell. Wyo., Colo., Utah.
Coelioxys lutzi Cockerell, 1921. Amer. Mus. Novitates 21: 5.

mediata Cockerell. Calif.
Coelioxys mediata Cockerell, 1925. Pan-Pacific Ent. 1: 146. ♀ ♂.

megatricha Cockerell. Calif.
Coelioxys megatricha Cockerell, 1916. Pomona Col. Jour. Ent. Zool. 80: 60. ♂.

mendacina Cockerell. Va.
Coelioxys mendacina Cockerell, 1921. Amer. Mus. Novitates 21: 3. ♀ ♂.

menthae Cockerell. N. Mex., Ariz.
Coelioxys menthae Cockerell, 1897. Canad. Ent. 29: 120. ♂.

mesae Cockerell. Colo.
Coelioxys mesae Cockerell, 1921. Amer. Mus. Novitates 21: 6. ♂.

modesta Smith. N. Y., Pa., Ind., Wis. Host: *Megachile infragilis* Cresson.
Coelioxys modesta Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 271. ♀.
Biology: Graenicher, 1927. Ent. News 38: 233, 274.

moesta Cresson. Alaska to B. C., Utah, Ont., Conn.
Coelioxys moesta Cresson, 1864. Ent. Soc. Phila. Proc. 2: 403. ♀.
Coelioxys tristis Provancher, 1882. Nat. Canad. 13: 241. ♀.
Coelioxys maesta (*!*) Dalla Torre, 1896. Cat. Hym., v. 10, p. 488.

novomexicana Cockerell. N. Mex., Ariz., Calif.
Coelioxys sayi var. ***novomexicana*** Cockerell, 1909. Ent. News 20: 9. ♀.
Taxonomy: Cockerell, 1921. Amer. Mus. Novitates 21: 1, ♂.

obtusiventris Crawford. Fla.
Coelioxys obtusiventris Crawford, 1914. Ent. Soc. Amer. Ann. 7: 150. ♀.

8-dentata Say. East. Canada and Atlantic Coast to Calif. Host: *Megachile brevis* Say.
Coelioxys 8-dentata Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 353. ♂.
Coelioxys brevis Cresson, 1864. Ent. Soc. Phila. Proc. 2: 402. ♀ ♂. Preocc.
Coelioxys altilis Cresson, 1879. Amer. Ent. Soc. Trans. 7: 219. N. name for *brevis* Cresson.
Coelioxys cressoni Dalla Torre, 1896. Cat. Hym., v. 10, p. 485. N. name for *brevis* Cresson.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 227.

piercei Crawford. Tex.
Coelioxys piercei Crawford, 1914. Ent. Soc. Amer. Ann. 7: 152, fig. ♀.

porterae Cockerell. Atlantic Coast to Rocky Mts.
Coelioxys (*lucrosa* var.?) ***porterae*** Cockerell, 1900. Canad. Ent. 32: 298. ♀.

pratti Crawford. Tex.
Coelioxys pratti Crawford, 1914. Ent. Soc. Amer. Ann. 7: 159. ♀.

quercina Cockerell. Ariz., Calif.
Coelioxys quercina Cockerell, 1912. Canad. Ent. 44: 167. ♂.

ribis Cockerell. N. S. to N. Mex., Wash., Calif. Host: *Megachile wootoni* Cockerell.
Coelioxys ribis Cockerell, 1900. Canad. Ent. 32: 301. ♀.
Coelioxys ribis var. ***kincaidii*** Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 13: 33. ♀.
Biology: Graenicher, 1927. Ent. News 38: 233, 273.

rudis Cockerell. Colo. Host: *Megachile montivaga* Cresson.
Coelioxys rudis Cockerell, 1934. Amer. Mus. Novitates 732: 3. ♀ ♂.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 233 (as *coloradensis*).

rufitarsis claripes Cockerell. South. Calif.
Coelioxys rufitarsis claripes Cockerell, 1925. Pan-Pacific Ent. 1: 146. ♂.

rufitarsis rhois Cockerell. N. Mex.
Coelioxys rufitarsis rhois Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 452. ♀.

rufitarsis rufitarsis Smith. South. Canada to north. Calif., Utah, and Colo. Hosts: *Megachile melanophaea* Smith; *M. latimanus* Say; ?*M. fortis vestali* Cockerell.
Coelioxys rufitarsis Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 271. ♂.
Biology: Graenicher, 1906. Wis. Nat. Hist. Soc. Bul. 4: 138.—Graenicher, 1927. Ent. News 38: 233.—Hicks, 1926. Colo. Univ., Studies 15: 230.

salinaria Cockerell. Utah.
Coelioxys salinaria Cockerell, 1925. Pan-Pacific Ent. 1: 148. ♂.

sayi Robertson. Ill., Ind. to Md., Va.
Coelioxys sayi Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 346. ♀ ♂.

scitula Cresson. Tex.
Coelioxys scitula Cresson, 1872. Amer. Ent. Soc. Trans. 4: 273. ♀ ♂.

sculptifrons Crawford. N. Y.
Coelioxys sculptifrons Crawford, 1914. Ent. Soc. Amer. Ann. 7: 153. ♀.

slossoni arenicola Crawford. Tex.
Coelioxys slossoni var. ***arenicola*** Crawford, 1914. Ent. Soc. Amer. Ann. 7: 156. ♀ ♂.

slossoni slossoni Viereck. Fla.
Coelioxys slossoni Viereck, 1902. Canad. Ent. 34: 327. ♀ ♂.

sodalis Cresson. N. Y., Colo.
Coelioxys sodalis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 99. ♂.

soledadensis Cockerell. N. Mex. Host: ?*Megachile soledadensis* Cockerell.
Coelioxys soledadensis Cockerell, 1909. Ent. News 20: 9. ♂.

texana texana Cresson. Tex., Ariz., Calif.
Coelioxys texana Cresson, 1872. Amer. Ent. Soc. Trans. 4: 272. ♀.

texana vegana Cockerell. N. Mex.
Coelioxys texana vegana Cockerell, 1912. Canad. Ent. 41: 166. ♂.

wisconsinensis Cockerell. Wis.
Coelioxys wisconsinensis Cockerell, 1925. Pan-Pacific Ent. 1: 145. ♀.

Family APIDAE

Subfamily ANTHOPHORINAE

Tribe EXOMALOPSINI[75]

[75] By Charles D. Michener, University of Kansas.

Genus EXOMALOPSIS Spinola

Revision: Timberlake, 1947. N. Y. Ent. Soc. Jour. 55: 85–106.

Subgenus EXOMALOPSIS Spinola

Exomalopsis Spinola, 1853. Accad. Sci. Torino Mem. (2) 13: 89.
Type: (*Exomalopsis fulvopilosa* Spinola)=*Exomalopsis aureopilosa* Spinola. Desig. by Taschenberg, 1883.
?Epimonispractor Holmberg, 1903. Buenos Aires Mus. Nac. de Hist. Nat. An. (3) 2: 426.
Type: *Epimonispractor gratiosus* Holmberg. Orig. desig.

birkmanni Cockerell. Tex.
Exomalopsis birkmanni Cockerell, 1922. Ann. Mag. Nat. Hist. (9) 10: 265. ♀.

snowi Cockerell. South. Tex.
Exomalopsis snowi Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 18: 73. ♂.

solani Cockerell. Tex., N. Mex., Ariz.
Exomalopsis solani Cockerell, 1896. Canad. Ent. 28: 25. ♀.

solidaginis Cockerell. N. Mex., Ariz., south. Calif., desert.
Exomalopsis solidaginis Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 2: 452. ♂.
Exomalopsis verbesinae Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 14: 21. ♀.
Taxonomy: Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 539, ♀ ♂.

zexmeniae Cockerell. South. Tex. to Panama.
Exomalopsis zexmeniae Cockerell, 1912. Ent. News 23: 447. ♀.

Subgenus ANTHOPHORULA Cockerell

Anthophorula Cockerell, 1897. N. Mex. Agr. Expt. Sta. Bul. 24: 44.
Type: *Anthophorula compactula* Cockerell. Monob.
Diadasiella Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 64.
Type: (*Diadasiella coquilletti* Ashmead)=*Synhalonia albicans* Provancher. Monob. and orig. desig.
Exomalopsis subg. *Pachycerapis* Cockerell, 1922. Amer. Mus. Novitates 47: 4.
Type: *Exomalopsis cornigera* Cockerell. Orig. desig.

albata Timberlake. Ariz., south. Calif., desert.
Exomalopsis (*Anthophorula*) *albata* Timberlake, 1947. N. Y. Ent. Soc. Jour. 55: 92. ♀ ♂.

albicans (Provancher). Calif.
Synhalonia albicans Provancher, 1896. Nat. Canad. 23: 27. ♂.
Diadasiella coquilletti Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 64. ♂.

albovestita Timberlake. South. Calif., desert.
Exomalopsis (*Anthophorula*) *albovestita* Timberlake, 1947. N. Y. Ent. Soc. Jour. 55: 98. ♂.

cerei Timberlake. South. Calif.
Exomalopsis (*Anthophorula*) *cerei* Timberlake, 1947. N. Y. Ent. Soc. Jour. 55: 100. ♀.

chionura Cockerell. Cent. Calif.
Exomalopsis (*Anthophorula*) *chionura* Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 203. ♀ ♂.

chlorina Cockerell. N. Mex.
Exomalopsis chlorina Cockerell, 1918. Ann. Mag. Nat. Hist. (9) 2: 477. ♀.

compactula (Cockerell). Tex., N. Mex., Ariz.
Anthophorula compactula Cockerell, 1897. N. Mex. Agr. Expt. Sta. Bul. 24: 44. ♀.
Taxonomy: Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 2: 415, ♀ ♂.

completa Cockerell. Tex., N. Mex.
Exomalopsis (*Anthophorula*) *compactula* var. *completa* Cockerell, 1935 Amer. Mus. Novitates 766: 5. ♀ ♂.

cornigera Cockerell. Ariz.
Exomalopsis (*Pachycerapis*) *cornigera* Cockerell, 1922. Amer. Mus. Novitates 47: 5. ♂.

deserticola Timberlake. South. Calif., desert.
Exomalopsis (*Anthophorula*) *deserticola* Timberlake, 1947. N. Y. Ent. Soc. Jour. 55: 95. ♀ ♂.

eriogoni Timberlake. South. Calif., desert.
Exomalopsis (*Anthophorula*) *eriogoni* Timberlake, 1947. N. Y. Ent. Soc. Jour. 55: 94. ♀ ♂.

euphorbiae Timberlake. Ariz.
Exomalopsis (*Anthophorula*) *euphorbiae* Timberlake, 1947. N. Y. Ent. Soc. Jour. 55: 102. ♀ ♂.

gutierreziae Timberlake. Ariz.
Exomalopsis (*Anthophorula*) *gutierreziae* Timberlake, 1947. N. Y. Ent. Soc. Jour. 55: 97. ♀.

micheneri Timberlake. Miss. On flowers of *Gerardia*.
Exomalopsis (*Anthophorula*) *micheneri* Timberlake, 1947. N. Y. Ent. Soc. Jour. 55: 105. ♀ ♂.

morgani (Cockerell). Tex.
Anthophorula morgani Cockerell, 1914. Entomologist 47: 114. ♀.

nitens Cockerell. South. Calif.
Exomalopsis nitens Cockerell, 1915. Pomona Col. Jour. Ent. Zool. 7: 231. ♀.

palmarum Timberlake. South. Calif.
Exomalopsis (*Anthophorula*) *palmarum* Timberlake, 1947. N. Y. Ent. Soc. Jour. 55: 99. ♂.

pygmaea (Cresson). Nebr., Colo., Tex.
Melissodes pygmaea Cresson, 1872. Amer. Ent. Soc. Trans. 4: 279. ♀.
Exomalopsis Bruneri Crawford, 1902. Canad. Ent. 34: 238. ♀ ♂.

rufiventris Timberlake. West. Tex., Ariz.
Exomalopsis (*Anthophorula*) *rufiventris* Timberlake, 1947. N. Y. Ent. Soc. Jour. 55: 101. ♀ ♂.

sidae Cockerell. N. Mex.
Exomalopsis sidae Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 160. ♀ ♂.

texana Friese. Tex.
Exomalopsis texana Friese, 1899. K. K. Naturhist. Hofmus. Ann. 14: 264. ♀. ♂.

torticornis Cockerell. South. Calif.
Exomalopsis torticornis Cockerell, 1927. Ent. Soc. Amer. Ann. 20: 399. ♂.
Biology: Hicks, 1936. Canad. Ent. 68: 47.

varleyi Timberlake. South. Calif., desert.
Exomalopsis (*Anthophorula*) *varleyi* Timberlake, 1947. N. Y. Ent. Soc. Jour. 55: 96. ♂.

Genus ANCYLOSCELIS Latreille

Ancyloscelis Latreille, 1829. *In* Cuvier, Le Règne Animal, ed. 2, v. 5, p. 355.
Type: *Ancylosceles ursinus* Haliday, 1837. First included species.
Ancylosceles (!) Haliday, 1837. Linn. Soc. London, Trans. 17: 320.
Dipedia Friese, 1906. Flora og Fauna, v. 8, p. 92.
Type: *Ancyloscelis armatus* Smith. Desig. by Lutz and Cockerell, 1920.

All species visit flowers of *Ipomoea*.

Revision: Michener, 1942. Pan-Pacific Ent. 18: 108–113.

armatus Smith Tex. to Brazil.
Ancyloscelis armatus Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 367. ♂.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 325.

sejunctus Cockerell. Tex., Colo., Ariz.
Ancylosceles sejuncta Cockerell, 1933. Amer. Mus. Novitates 595: 1. ♂.
Ancylosceles maculifera Cockerell, 1934. Amer. Mus. Novitates 697: 8. ♂.
Taxonomy: Cockerell, 1935. Amer. Mus. Novitates 766: 4, ♀.

Tribe NOMADINI[76]

Genus NOMADA Scopoli

Biology: Robertson, 1928. Flowers and Insects, Carlinville, Ill., pp. 1–221 (in part). Records of flower visits for 23 species of *Nomada*.

Morphology: Cockerell and Atkins, 1902. Ann. Mag. Nat. Hist. (7) 10: 40–44.—Beck, 1933. Utah Acad. Sci., Arts and Letters Proc. 10: 101, figs. 60–64.—Linsley and Michener, 1939. Amer. Ent. Soc. Trans. 65: 265–305, 4 pls.—Snodgrass, 1941. Smithsonian Misc. Coll. 99: 55–56, pl. 27 F-J.—Michener, 1944. Amer. Mus. Nat. Hist. Bul. 82: 151–326 (in part), figs.

Revisions: Cresson, 1887. Amer. Ent. Soc. Trans., Sup. (2): 296–297.—Robertson, 1903. Canad. Ent. 35: 172–179.—Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 559–579, 580–610.—Cockerell, 1904 (1903). Colo. Expt. Sta., Rpt. of Ent., Bul. 94: 65–85.—Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 309–312 (notes on British Museum types).—Cockerell, 1911. U. S. Natl. Mus. Proc. 41: 225–243.—Swenk, 1912. Nebr. Univ., Studies 2 (1): 1–113.—Rodeck, 1931. Amer. Mus. Novitates 496: 1–11.

Presumably all inquilines in the nests of wild bees, principally *Andrena*, but in Europe reported for *Halictus*, *Eucera*, etc.

Subgenus NOMADA Scopoli

Nomada Scopoli, 1770. Historico Naturalis Ann. 4: 44.
Type: ***Nomada ruficornis*** (Linnaeus). Desig. by Curtis, 1832.

Revision: Robertson, 1903. Canad. Ent. 35: 174–175, 178–179.—Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 569–579, 589 (in part), etc.—Viereck *et al*, 1905. Canad. Ent. 37: 285–287.—Swenk, 1913. Nebr. Univ., Studies 12: 10–11, 15–57.—Swenk, 1915. Nebr. Univ., Studies 15: 155–163.

Species undetermined to subgenus are also included here.

accepta Cresson. Colo., Kans. On *Grindelia*.
Nomada accepta Cresson, 1878. Amer. Ent. Soc. Trans. 7: 77. ♀ ♂.
Nomada pacata Cresson, 1878. Amer. Ent. Soc. Trans. 7: 81. ♀.

aldrichi Cockerell. Idaho, Wash., B. C.
Nomada vicinalis aldrichi Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 368 ♂.

amoena Cresson. Ill.
Nomada amoena Cresson, 1863. Ent. Soc. Phila. Proc. 2: 300. ♀.

angelarum Cockerell. Calif.
Nomada (Nomada) angelarum Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 574. ♀.

angulata Swenk. Nebr.
Nomada (Nomada) angulata Swenk, 1913. Nebr. Univ., Studies 12: 40. ♀.

annulata Smith. "North America."
Nomada annulata Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 248. ♀ (♂misdet.).

aprilina Swenk, 1913. Nebr. On *Ribes*.
Nomada (Nomada) aprilina Swenk, 1913. Nebr. Univ., Studies 12: 28. ♂.

armatella Cockerell. "Canada."
Nomada armatella Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 606. ♂.

astori Cockerell. Oreg.
Nomada astori (*vel* ***ultima*** var.?) Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 206. ♀. Var. a = *mediana* Swenk.

atrofrontata Cockerell. South. Calif.
Nomada (Nomada) atrofrontata Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 573. ♀.

banksi Cockerell. Va.
Nomada banksi Cockerell, 1907. Entomologist 40: 98. ♀.

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[76] By Hugo G. Rodeck, University of Colorado.

bethunei Cockerell. "Canada."
Nomada bethunei Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 607. ♂.

beulahensis Cockerell. N. Mex., N. Dak. On *Grindelia*.
Nomada beulahensis Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 209. ♀.

bicrista Swenk. Nebr.
Nomada (Nomada) bicrista Swenk, 1913. Nebr. Univ., Studies 12: 27. ♂.

bifurcata Cockerell. Calif.
Nomada (Nomada) bifurcata Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 577. ♂.

bilobata Swenk. Nebr., Wis. On *Sambucus*.
Nomada (Nomada) bilobata Swenk, 1913. Nebr. Univ., Studies 12: 25. ♂ (♀ misdet.).

bisetosa Swenk. Nebr. On *Senecio*.
Nomada (Nomada) bisetosa Swenk, 1913. Nebr. Univ., Studies 12: 30. ♀.

bisignata Say. "United States."
Nomada bisignata Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 354. ♀. 1837. Boston Jour. Nat. Hist. 1: 402. ♂. (Considered unidentifiable.)
Nomada bicincta (*!*) Howard, 1902. Insect Book, pl. 3, fig. 32.

californiae Cockerell. Calif.
Nomada (Nomada) californiae Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 571. ♀.

carinicauda Cockerell. Colo.
Nomada carinicauda Cockerell, 1921. Amer. Mus. Novitates 24: 7. ♀.

ceanothi Cockerell. Va. On *Ceanothus*.
Nomada (Nomada) ceanothi Cockerell, 1907. Entomologist 40: 97. ♀.

clarkii Cockerell. Oreg.
Nomada Clarkii Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 203. ♀.

coloradella Cockerell. Colo.
Nomada coloradella Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 83. ♂ ♀.

cordleyi Cockerell. Oreg.
Nomada Cordleyi Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 445. ♂.

corvallisensis Cockerell. Oreg.
Nomada corvallisensis Cockerell, 1903. Ann. and Mag. Nat. Hist. (7) 12: 207. ♀.

cressonii cressonii Robertson. East. U. S. to N. Dak. On *Ribes*; *Salix*.
Nomada cressonii Robertson, 1893. Amer. Ent. Soc. Trans. 20: 275. ♀ ♂.

cressonii trevoriana Cockerell. Wash.
Nomada (Nomada) Cressonii Trevoriana Cockerell, 1905. Canad. Ent. 37: 285.

cymbalariae Cockerell. Colo. On *Halerpestes*.
Nomada cymbalariae Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 439. ♀.

davidsoni Cockerell. Calif.
Nomada (Nomada) davidsoni Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 575. ♀.

denticulata Robertson. Ill., N. J., N. Y., Conn.
Nomada denticulata Robertson, 1902. Canad. Ent. 34: 49.

depressa Cresson. Maine.
Nomada depressa Cresson, 1863. Ent. Soc. Phila. Proc. 2: 302. ♀.

depressicauda Cockerell. Va., Pa., Nebr.
Nomada depressicauda Cockerell, 1908. Ent. News 19: 323. ♀.
Nomada (Nomada) depressicauda Swenk, 1913. Nebr. Univ., Studies 12: 38. ♀ ♂.

electa Cresson. Ill., Conn.
Nomada electa Cresson, 1863. Ent. Soc. Phila. Proc. 2: 290. ♀ ♂.

elegantula Cockerell. Calif., Idaho.
Nomada (*Nomada*) *elegantula* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 578. ♀.

erythraea Dalla Torre. Calif.
Nomada rubra Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 427. ♀. Preocc.
Nomada erythraea Dalla Torre, 1896. Cat. Hym., v. 10, p. 343. N. name.

flammigera Cockerell. Wash.
Nomada (*Nomada*) *flammigera* Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 18: 71. ♀.

florilega Lovell and Cockerell. Maine. On *Aralia*; *Spirea*.
Nomada (*Nomada*) *florilega* Lovell and Cockerell, 1905. Psyche 12: 41. ♀.

fontis Cockerell. Colo.
Nomada (*Nomada*) *fontis* Cockerell, 1910. Canad. Ent. 42: 367. ♀.

fowleri Cockerell. Oreg., Calif.
Nomada Fowleri Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 204. ♀.

gibbosa Viereck. Oreg.
Nomada gibbosa Viereck, 1905. Canad. Ent. 37: 285. ♂.

gracilis Cresson. Mass., N. Y.
Nomada gracilis Cresson, 1863. Ent. Soc. Phila. Proc. 2: 295. ♂.

hoodiana Cockerell. Oreg.
Nomada hoodiana Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 608. ♀.

idahoensis Swenk. Idaho.
Nomada (*Nomada*) *idahoensis* Swenk, 1913. Nebr. Univ., Studies 12: 53. ♂.

illinoiensis Robertson. East. United States (west to Colo.?). On *Prunus*; *Fragaria*; *Salix*; *Spiraea*.
Nomada Illinoiensis Robertson, 1900. Canad. Ent. 32: 294. ♀ ♂.
Nomada illinoensis Cockerell, 1911. U. S. Natl. Mus. Proc. 39: 657. Emend.
Nomada illinoënsis Cockerell, 1921. Amer. Mus. Novitates 24: 7. ♀. Emend.

imbricata Smith. "U. S.," Conn., Mass. Inquiline of *Andrena vicina* Smith?
Nomada imbricata Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 246. ♀.
Nomada (*Holonomada*) *imbricata* Viereck, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22 (3): 727. ♀.
Morphology: Packard, 1897. N. Y. Ent. Soc. Jour. 5: 83–84.

infantula Cockerell. Va.
Nomada infantula Cockerell, 1907. Entomologist 40: 98. ♀ ♂.

interruptella Fowler. Calif.
Nomada interrupta Fowler, 1899. Ent. News 10: 159. ♂. Preocc.
Nomada interruptella Fowler, 1902. Calif. Agr. Expt. Sta. Rpt., 1898–1901, p. 329. N. name.

itamera Cockerell. Wash.
Nomada itamera Cockerell, 1910. Psyche 17: 95. ♀.

kincaidiana Cockerell. Wash.
Nomada kincaidiana Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 614. ♀.

latifrons Cockerell. Calif., Nev.
Nomada (*Nomada*) *latifrons* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 572. ♀.

lehighensis Cockerell. Pa.
Nomada lehighensis Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 605. ♀ ♂.

lewisi Cockerell. Oreg.
Nomada Lewisi Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 205. ♀.

libata Cresson. Colo.
Nomada libata Cresson, 1878. Amer. Ent. Soc. Trans. 7: 80. ♀ ♂.
Nomada limbata (*!*) Dalla Torre, 1896. Cat. Hym., v. 10, p. 354.

luteopicta Cockerell. Colo.
Nomada luteopicta Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 83. ♂ ♀.

malonella Cockerell. Wash.
Nomada (Nomada) malonella Cockerell, 1910. Psyche 17: 93. ♀ ♂?

malonina Cockerell. Wash.
Nomada (Nomada) malonina Cockerell, 1910. Psyche 17: 94. ♂.

marginella Cockerell. Calif.
Nomada (Nomada) marginella Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 576. ♀.

mckenziei Timberlake and Cockerell. Calif. On *Eriogonum*.
Nomada mckenziei Timberlake and Cockerell, 1937. Amer. Mus. Novitates 948: 4. ♀ ♂.

mediana Swenk. Oreg., Calif.
Nomada (Nomada) mediana Swenk, 1913. Nebr. Univ., Studies 12: 49. ♀.

melanosoma Cockerell. Calif.
Nomada melanosoma Cockerell, 1916. Pomona Col. Jour. Ent. Zool. 8: 55.

mera Cockerell. Colo., N. J.?
Nomada mera Cockerell, 1908. Ent. Soc. Wash. Proc. 10: 83. ♀. Cockerell, 1911. U. S. Natl. Mus. Proc. 41: 239. ♂ ♀.

minuta Swenk. Nebr. On *Homalobus*.
Nomada (Nomada) minuta Swenk, 1913. Nebr. Univ., Studies 12: 44. ♀.

munda Cresson. Colo.
Nomada munda Cresson, 1878. Amer. Ent. Soc. Trans. 7: 80. ♀.

nigrociliata Swenk. Nebr.
Nomada (Nomada) nigrociliata Swenk, 1913. Nebr. Univ., Studies 12: 32. ♀.

nigrocincta Smith. "Arctic America," Maine, Oreg.
Nomada nigrocincta Smith, 1879. Descr. New Species Hym. Brit. Mus., p. 99. ♀.

nigrofasciata Swenk. Nebr. On *Homalobus*; *Symphoricarpos*.
Nomada (Nomada) nigrofasciata Swenk, 1913. Nebr. Univ., Studies 12: 24. ♀.

obliquella Fowler. Calif. On *Ranunculus*.
Nomada obliqua Fowler, 1899. Ent. News 10: 160. ♂. Preocc.
Nomada obliquella Fowler, 1902. Calif. Agr. Expt. Sta. Rpt., 1898–1901, p. 329. N. name.

obscurella Fowler. Calif. On *Ranunculus*.
Nomada obscura Fowler, 1899. Ent. News 10: 160. ♂. Preocc.
Nomada obscurella Fowler, 1902. Calif. Agr. Expt. Sta. Rpt., 1898–1901, p. 329. N. name.

obtusata Swenk. N. Dak. On *Brassica*.
Nomada (Nomada) obstusata (!) Swenk, 1915. Nebr. Univ., Studies 15: 159. ♀. *Lapsus calami*, *fide* Swenk, personal communication.

ochrohirta Swenk. Nebr.
Nomada (Nomada) ochrohirta Swenk, 1913. Nebr. Univ., Studies 12: 34. ♀.

odontocera Cockerell. Calif.
Nomada odontocera Cockerell, 1916. Pomona Col. Jour. Ent. Zool. 8: 57. ♂.

opposita Cresson. Calif.
Nomada opposita Cresson, 1878. Amer. Ent. Soc. Trans. 8: 73. ♀.

orcusella Cockerell. Wash.
Nomada (Nomada) orcusella Cockerell, 1910. Psyche 17: 95. ♀.

oregonica Cockerell. Oreg., Calif.
Nomada oregonica Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 205. ♀ ♂.

osborni Cockerell. Ariz.
Nomada (Nomada) osborni Cockerell, 1911. U. S. Natl. Mus. Proc. 41: 243. ♂.

packardiella Cockerell. Colo., Wash.?
Nomada Packardiella Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 225. ♀.

pallidipicta Swenk. Nebr. On *Solidago.*
Nomada (*Nomada*) ***pallidipicta*** Swenk, 1913. Nebr. Univ., Studies 12: 48. ♂.

parallela Swenk. Nebr.
Nomada (*Nomada*) ***parallela*** Swenk, 1913. Nebr. Univ., Studies 12: 36. ♂.

parata Cresson. Colo.
Nomada parata Cresson, 1878. Amer. Ent. Soc. Trans. 7: 81. ♀.

parva Robertson. Ill., Okla., Tex., N. Car.
Nomada parva Robertson, 1900. Canad. Ent. 32: 294. ♀ ♂.

propinqua Swenk. Nebr. On *Rosa; Lappula.*
Nomada (*Nomada*) ***propinqua*** Swenk, 1913. Nebr. Univ., Studies 12: 46. ♀ ♂.

pulsatillae Cockerell. Colo., Wash.? On *Pulsatilla.*
Nomada pulsatillae Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 18: 69. ♀.

pygmaea Cresson. Conn., N. Y., N. J., Colo.?
Nomada pygmaea Cresson, 1863. Ent. Soc. Phila. Proc. 2: 299. ♂.

rhodosoma rhodosoma Cockerell. Calif., Nev.
Nomada (*Nomada*) ***rhodosoma*** Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 571. ♀ ♂?

rhodosoma rhodosomella Cockerell. Colo.
Nomada rhodosoma var. ***rhodosomella*** Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 571. ♀ ♂?

robertsonella Cockerell. Nev.
Nomada robertsonella Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 613. ♀.

rubrica Provancher. Calif.
Nomada rubrica Provancher, 1896. Nat. Canad. 23: 8. ♀.
Nomada bisignata var. ***rubrica*** Fowler, 1899. Ent. News 10: 162.

salicicola Swenk. Nebr. On *Salix.*
Nomada (*Nomada*) ***salicicola*** Swenk, 1913. Nebr. Univ., Studies 12: 35. ♂.

salicis Robertson. Ill.
Nomada salicis Robertson, 1900. Acad. Sci. St. Louis, Trans. 10: 52. ♂.

sayi Robertson. Widespread east of Rockies. On *Prunus; Fragaria; Lomatium, Cochlearia, Salix, Ribes, Viola, Erigeron.*
Nomada sayi Robertson, 1893. Amer. Ent. Soc. Trans. 20: 276. ♀ ♂.
Taxonomy: Robertson, 1900. Canad. Ent. 32: 293–294, ♀ ♂ (redescribed, restricted).

sedi Cockerell. Colo. On *Sedum.*
Nomada sedae Cockerell, 1919. Ent. News 30: 292. ♀.
Nomada sedi Cockerell, 1920. Ann. Mag. Nat. Hist. (9) 6: 201. Emend.

semirugosa Cockerell. Colo.
Nomada semirugosa Cockerell, 1929. Ann. Mag. Nat. Hist. (10) 4: 297.

simplex Robertson. Ill., N. J., Mich.?
Nomada simplex Robertson, 1902. Ent. News 13: 80. ♂.

skinneri Cockerell. Pa.
Nomada skinneri Cockerell, 1908. Ent. News 19: 323. ♀.

sphaerogaster Cockerell. N. J., Wis.
Nomada sphaerogaster Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 611. ♀.

subaccepta Cockerell. Colo. On *Antennaria.*
Nomada subaccepta Cockerell, 1907. Entomologist 40: 267. ♂.

subangusta Cockerell. Calif.
Nomada (*Nomada*) ***subangusta*** Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 570. ♂.

subnigrocincta Swenk. N. J., Pa.
Nomada (*Nomada*) ***subnigrocincta*** Swenk, 1915. Nebr. Univ., Studies 15: 155. ♀ ♂.

subpacata Swenk. N. Dak.
Nomada (Nomada) subpacata Swenk, 1913. Nebr. Univ., Studies 12: 55. ♀.

subvicinalis Cockerell. Calif.
Nomada (Nomada) subvicinalis Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 576. ♂.

taraxacella Cockerell. N. Mex., Colo., Nebr., Wash.? On *Taraxacum; Fallugia, Erigeron, Senecio.*
Nomada ultima taraxacella Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 589. ♀.
Nomada taraxacella Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 74.
Nomada (Nomada) taraxacella Swenk, 1913. Nebr. Univ., Studies 12: 22. ♀ ♂.
Taxonomy: Cockerell, 1911. U. S. Natl. Mus. Proc. 41: 238. ♀ ♂.

tintinnabulum Cockerell. Calif.
Nomada (Nomada) tintinnabulum Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 572. ♀.

ultima Cockerell. Wash., Oreg., Calif.
Nomada ultima Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 206. ♀.
Nomada modocorum Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 444. ♂.

ultimella septentrionalis Swenk. Wash.
Nomada (Nomada) ultimella septentrionalis Swenk, 1913. Nebr. Univ., Studies 12: 50. ♀.

ultimella ultimella Cockerell. Calif.
Nomada (Nomada) ultimella Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 572. ♀.

undulaticornis Cockerell. Colo. On *Pulsatilla.*
Nomada undulaticornis Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 18: 70. ♂.

valida Smith. N. S., N. Y.
Nomada valida Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 246. ♀.

velutina Swenk. Nebr.
Nomada (Nomada) velutina Swenk, 1913. Nebr. Univ., Studies 12: 39. ♀.

vicina stevensi Swenk. N. Dak. On *Grindelia; Melilotus.*
Nomada (Nomada) vicina stevensi Swenk, 1913. Nebr. Univ., Studies 12: 56. ♀ ♂.

vicina vicina Cresson. Northeast. United States to Nebr. On *Solidago.*
Nomada vicina Cresson, 1863. Ent. Soc. Phila. Proc. 2: 292. ♀ ♂.

vicinalis infrarubens Cockerell. Oreg.
Nomada vicinalis var. *infrarubens* Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 84. ♂.

vicinalis vicinalis Cresson. Nebr., Colo.
Nomada vicinalis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 78. ♂.
Nomada (Nomada) vicinalis Swenk, 1913. Nebr. Univ., Studies 12: 41. ♂ ♀.

wootonella Cockerell. N. Mex. On *Sophia.*
Nomada wootonella Cockerell, 1909. Entomologist 42: 93. ♂.

wyomingensis Swenk. Wyo.
Nomada (Nomada) wyomingensis Swenk, 1913. Nebr. Univ., Studies 12: 52. ♀.

xanthura Cockerell. N. Y.
Nomada xanthura Cockerell, 1908. Ent. Soc. Wash. Proc. 10: 84. ♀.

ziziae Swenk. N. Dak. On *Zizia; Rubus.*
Nomada (Nomada) ziziae Swenk, 1915. Nebr. Univ., Studies 15: 4. ♀ ♂.

Subgenus GNATHIAS Robertson

Gnathias Robertson, 1903. Canad. Ent. 35: 173.
Type: *Nomada bella* Cresson, 1863. Orig. desig.
Revision: Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 594–603.—Viereck *et al*, 1905. Canad. Ent. 37: 282–283.—Swenk, 1913. Nebr. Univ., Studies 12: 11–15, 90–99.—Swenk, 1915. Nebr. Univ., Studies 15: 172–179.

albofasciata Smith. Northern North America east of Rocky Mts.? On *Prunus.*
Nomada albofasciata Smith, 1879. Descr. New Species Hym. Brit. Mus., p. 100. ♂.

bella bella Cresson. Widespread. On *Salix.*
Nomada bella Cresson, 1863. Ent. Soc. Phila. Proc. 2: 287. ♂.
Morphology: Snodgrass, 1941. Smithsonian Misc. Coll. 99: 55–56, pl. 27, figs. F-J.

bella callura Cockerell. Colo.
Nomada (*Gnathias*) *bella callura* Cockerell, 1911. U. S. Natl. Mus. Proc. 39: 657. ♂.

carolinae Cockerell. East. United States to Wyo. On *Ribes; Salix; Prunus; Fragaria.*
Nomada (*Gnathias*) *carolinae* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 602. ♀.

clarescens Cockerell. Colo.
Nomada (*Gnathias*) *clarescens* Cockerell, 1921. Amer. Mus. Novitates 24: 10. ♀.

cornelliana Cockerell. N. Y., Pa.
Nomada (*Gnathias*) *cornelliana* Cockerell, 1908. Ent. Soc. Wash. Proc. 10: 84. ♂.

custeriana Cockerell. Colo.
Nomada (*Gnathias*) *custeriana* Cockerell, 1911. U. S. Natl. Mus. Proc. 41: 241. ♂.

fuscicincta Swenk. N. Dak. On *Zizia.*
Nomada (*Gnathias*) *fuscicincta* Swenk, 1915. Nebr. Univ., Studies 15: 24. ♀ ♂.

grayi eastonensis Cockerell. Wash.
Nomada (*Gnathias*) *grayi eastonensis* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 597. ♀.

grayi grayi Cockerell. Oreg.
Nomada Grayi Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 203. ♀.

heterosticta Cockerell. Idaho.
Nomada (*Gnathias*) *heterosticta* Cockerell, 1921. Amer. Mus. Novitates 24: 9. ♀.

hydrophylli Swenk. N. Dak., Ill. On *Hydrophyllum; Zizia; Viola; Arabis; Polemonium.*
Nomada (*Gnathias*) *hydrophylli* Swenk, 1915. Nebr. Univ., Studies 15: 25. ♂.
Gnathias xanthoparius Robertson MS, 1928. *Nom. nud.* Flowers and Insects, Carlinville, Ill., pp. 9, 101, 111, 152. ♂.

klamathensis Fox. Oreg.
Nomada (*Gnathias*) *klamathensis* Fox, 1926. Pan-Pacific Ent. 5: 212. ♂.

lepida Cresson. Widespread. On flowers of numerous genera and several families.
Nomada lepida Cresson, 1863. Ent. Soc. Phila. Proc. 2: 288. ♂.
Gnathias cuneatus Robertson, 1903. Canad. Ent. 35: 175. ♀ ♂.
Gnathias cuneatus form *decemnotatus* Robertson, 1903. Canad. Ent. 35: 175. ♀.
Gnathias cuneatus form *octonotatus* Robertson, 1903. Canad. Ent. 35: 175. ♀.
Gnathias cuneatus form *sexnotatus* Robertson, 1903. Canad. Ent. 35: 176. ♀.
Gnathias cuneatus form *quadrisignatus* Robertson, 1903. Canad. Ent. 35: 176. ♀.

leucozona Rodeck. Colo. On *Salix.*
Nomada (*Gnathias*) *leucozona* Rodeck, 1931. Amer. Mus. Novitates 496: 4. ♂.

louisianae Cockerell. La.
Nomada (*Gnathias*) *louisianae* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 602. ♀.

maculata Cresson. Conn., Ill.
Nomada maculata Cresson, 1863. Ent. Soc. Phila. Proc. 2: 303. ♀ ♂?

orophila Cockerell. Colo., Wyo.
Nomada (*Gnathias*) *orophila* Cockerell, 1921. Amer. Mus. Novitates 24: 8. ♂ ♀.

ovata (Robertson). Ill., N. J. On numerous flowers.
Gnathias ovatus Robertson, 1903. Canad. Ent. 35: 175. ♀ ♂.
Gnathias ovatus form *plenus* Robertson, 1903. Canad. Ent. 35: 175. ♀.
Gnathias ovatus form *octomaculatus* Robertson, 1903. Canad. Ent. 35: 175. ♀.
Gnathias ovatus form *sexmaculatus* Robertson, 1903. Canad. Ent. 35: 175. ♀.
Gnathias ovatus form *quadrimaculatus* Robertson, 1903. Canad. Ent. 35: 175. ♀.
Gnathias ovatus form *binotatus* Robertson, 1903. Canad. Ent. 35: 175. ♀.
Gnathias ovatus form *unicolor* Robertson, 1903. Canad. Ent. 35: 175. ♀.

perbella (Viereck). Oreg., Wash., B. C.
Gnathias perbella Viereck, 1905. Canad. Ent. 37: 282. ♀ ♂.

perplexa Cresson. Northeast. United States to Va. (and Wyo.?). On *Ceanothus*.
Nomada perplexa Cresson, 1863. Ent. Soc. Phila. Proc. 2: 306. ♀ ♂?
Nomada (*Gnathias*) *perplexa* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 600. ♂ ♀.

perplexans Cockerell. Wash.
Nomada (*Gnathias*) *perplexans* Cockerell, 1910. Psyche 17: 94. ♂.

physura Cockerell. Nev.
Nomada (*Gnathias*) *physura* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 599. ♂.

rhodalis Cockerell. Nev.
Nomada (*Gnathias*) *rhodalis* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 600. ♀.

rhodomelas Cockerell. Oreg., B. C.
Nomada (*Gnathias*) *rhodomelas* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 598. ♂ ♀?

rubi Swenk. N. Dak., Minn. On *Rubus; Zizia; Erigeron; Thlaspi; Sanicula*.
Nomada (*Gnathias*) *rubi* (or *schwarzi* subsp.?) Swenk, 1915. Nebr. Univ., Studies 15: 20. ♀ ♂.

rubrella Cockerell. Colo. On *Prunus*.
Nomada (*Gnathias*) *rubrella* Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 75. ♀.

schwarzi contractula Cockerell. N. Mex.
Nomada (*Gnathias*) *schwarzi contractula* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 600. ♂.

schwarzi schwarzi Cockerell. Colo.
Nomada (*Gnathias*) *schwarzi* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 599. ♂ (♀ misdet.).

siouxensis Swenk. Nebr., Wyo. On "borage."
Nomada (*Gnathias*) *siouxensis* Swenk, 1913. Nebr. Univ., Studies 12: 96. ♀.

subrubi Swenk. N. Dak. On *Zizia; Erigeron; Melilotus; Rubus*.
Nomada (*Gnathias*) *subrubi* Swenk, 1915. Nebr. Univ., Studies 15: 176. ♀ ♂.

utensis Swenk. Colo.
Nomada (*Gnathias*) *utensis* Swenk, 1913. Nebr. Univ., Studies 12: 97. ♀ ♂.

volatilis Smith. "Canada."
Nomada volatilis Smith, 1879. Descr. New Species Hym. Brit. Mus., p. 100. ♂.

vulpis Cockerell. Wyo.
Nomada (*Gnathias*) *vulpis* Cockerell, 1921. Amer. Mus. Novitates 24: 10. ♀.

washingtoni Cockerell. Wash.
Nomada (*Gnathias*) *washingtoni* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 598. ♀.

Subgenus PHOR Robertson

Phor Robertson, 1903. Canad. Ent. 35: 173, 177.
Type: (***Nomada integra*** Robertson) (preocc.) = ***Nomada integerrima*** Dalla Torre. Orig. desig. and monob.
Revision: Swenk, 1913. Nebr. Univ. Studies 12: 12, 14.

integerrima Dalla Torre. Ill. On *Antennaria*; *Dentaria*; *Claytonia*; *Prunus*; *Salix*.
Nomada integra Robertson, 1893. Amer. Ent. Soc. Trans. 20: 276. ♀ ♂. Preocc.
Nomada integerrima Dalla Torre, 1896. Cat. Hym. v. 10, p. 353. N. name.
Phor integer Robertson, 1903. Canad. Ent. 35: 174, 175, 177. ♀ ♂.

proxima Cresson. Maine, Conn.
Nomada proxima Cresson, 1863. Ent. Soc. Phila. Proc. 2: 294. ♂.
Nomada (Phor) proxima Viereck, 1916. Conn. State Geol. and Nat. Hist. Survey Bul. 22 (3): 726.

siccorum Cockerell. Colo.
Nomada (Phor) siccorum Cockerell, 1919. Ent. News 30: 291. ♂.

subgracilis Cockerell. Calif.
Nomada (Phor) subgracilis Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 569. ♂.

vexator Cockerell. Colo.
Nomada vexator Cockerell, 1909. Entomologist 42: 92. ♀ ♂.

Subgenus HEMINOMADA Cockerell and Atkins

Nomada subg. ***Heminomada*** Cockerell and Atkins, 1902. Ann. and Mag. Nat. Hist. (7) 10: 42.
Type: ***Nomada obliterata*** Cresson. Orig. desig. and monob.
Xanthidium Robertson, 1903 (not Ehrenberg, 1833). Canad. Ent. 35: 174, 177.
Type: ***Nomada luteola*** Oliv. Orig. desig.
Revision: Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 564–569, 580–587 (part). —Robertson, 1903. Canad. Ent. 35: 173, 174–175, 177.—Viereck *et al*, 1905. Canad. Ent. 37: 284–285.—Swenk, 1913. Nebr. Univ., Studies 12: 8–11, 13–15, 57–76.—Swenk, 1915. Nebr. Univ., Studies 15: 163–169.

agynia Cockerell. Colo.
Nomada agynia Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 81. ♂.

alpha alpha Cockerell. Colo. On *Capsella*.
Nomada alpha Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 84. ♀.
Nomada (Heminomada) alpha Swenk, 1913. Nebr. Univ., Studies 12: 71. ♀ ♂.

alpha dialpha Cockerell. Colo. June.
Nomada alpha var. ***dialpha*** Cockerell, 1921. Amer. Mus. Novitates 24: 3. ♀.

alpha paralpha Cockerell. Colo.
Nomada alpha var. ***paralpha*** Cockerell, 1921. Amer. Mus. Novitates 24: 3. ♀.

arizonica Cockerell. Ariz.
Nomada (Xanthidium) arizonica Cockerell, 1911. U. S. Natl. Mus. Proc. 41: 242. ♂.

ashmeadi Cockerell. Calif.
Nomada (Xanthidium) ashmeadi Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 568. ♀.

avalonica Cockerell. Calif.
Nomada (Holonomada) avalonica Cockerell, 1938. Ann. and Mag. Nat. Hist. (11) 2: 152. ♀.

calloxantha Cockerell. Wyo.
Nomada (Xanthidium) calloxantha Cockerell, 1921. Amer. Mus. Novitates 24: 4. ♀.

citrina citrina Cresson. Pacific Coast.
Nomada citrina Cresson, 1878. Amer. Ent. Soc. Trans. 7: 79. ♀.

citrina flavomarginata Swenk. Nebr.
Nomada (Heminomada) citrina flavomarginata Swenk, 1913. Nebr. Univ., Studies 12: 67–71. ♀ ♂.

citrina rufula Cockerell. Idaho.
Nomada citrina var. *rufula* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 586. ♀.

civilis civilis Cresson. United States west of Nebr.
Nomada civilis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 78. ♂.

civilis spokanensis Cockerell. Wash.
Nomada civilis spokanensis Cockerell, 1910. Psyche 17: 92. ♀.

collinsiana Cockerell. Colo. On *Prunus*.
Nomada (Xanthidium) collinsiana Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 79. ♀.

coloradensis Cockerell. Colo.
Nomada coloradensis Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 603. ♀.
Revision: Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 84, ♀ ♂.

concinnula Cockerell. Colo.
Nomada (Xanthidium) concinnula Cockerell, 1921. Amer. Mus. Novitates 24: 6. ♀.

coquilletti Cockerell. Calif., Wash., Idaho.
Nomada (Xanthidium) coquilletti Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 567. ♂.

crawfordi crawfordi Cockerell. Colo., Nebr., Wyo. On *Senecio*; *Halerpestes*; *Draba*; *Antennaria*; *Drymocallis*.
Nomada (Xanthidium) crawfordi Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 79. ♀.
Nomada crawfordi Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 437. ♀ ♂.

crawfordi lachrymosa Cockerell. Wyo.
Nomada (Xanthidium) crawfordi lachrymosa Cockerell, 1921. Amer. Mus. Novitates 24: 5. ♀.

crudelis Cresson. Ga.
Nomada crudelis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 82. ♀.

decempunctata Cockerell. Calif.
Nomada (Xanthidium) decempunctata Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 565. ♂.

dentariae (Robertson). Ill., N. J. On *Mertensia*; *Dentaria*; *Erythronium*; *Salix*.
Xanthidium dentariae Robertson, 1903. Canad. Ent. 35: 178. ♂.

dilucida Cresson. Colo.
Nomada dilucida Cresson, 1878. Amer. Ent. Soc. Trans. 7: 80. ♀.

ednae Cockerell. Colo. On *Taraxacum*.
Nomada (Xanthidium) Ednae Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 19: 537. ♂.

elrodi Cockerell. Mont., Nebr., Colo., Tex. On *Ribes*; *Prunus*; *Erigeron*; *Symphoricarpos*; *Taraxacum*.
Nomada (Xanthidium) elrodi Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 583. ♂.
Nomada (Heminomada) elrodi Swenk, 1913. Nebr. Univ., Studies 12: 62. ♀, ♂ var.

excurrens Cockerell. Calif.
Nomada (Holonomada) excurrens Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 562. ♂.

fragilis fragilis Cresson. Colo., Nebr., N. Mex., Calif. On *Salix*; *Homalobus*.
Nomada fragilis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 79. ♂.

fragilis mesosticta Cockerell. Calif.
Nomada fragilis mesosticta Cockerell, 1939. Ann. and Mag. Nat. Hist. (11) 3: 182. ♂.

gillettei Cockerell. Colo.
Nomada gillettei Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 81. ♂.

graenicheri Cockerell. Wis.
Nomada (Xanthidium) Graenicheri Cockerell, 1905. Canad. Ent. 37: 189. ♀.
Nomada graenicheri Graenicher, 1911. Pub. Mus. City Milwaukee, Bul. 1: 238. ♀ ♂.

jocularis Cresson. Nev.
Nomada jocularis Cresson, 1879. Amer. Ent. Soc. Trans. 7: 202. ♀.

laramiensis Swenk. Wyo.
Nomada (Heminomada) laramiensis Swenk, 1913. Nebr. Univ., Studies 12: 75. ♂.

luteola Olivier. East. United States.
Nomada luteola Olivier, 1811. Encycl. Meth., v. 8, p. 365.

luteoloides Robertson. United States east of Rockies.
Nomada luteoloides Robertson, 1895. Amer. Ent. Soc. Trans. 22: 124. ♀.
Nomada (Xanthidium) luteoloides bishoppi Cockerell, 1911. U. S. Natl. Mus. Proc. 39: 655. ♀. *Fide* Swenk, 1915.
Nomada (Heminomada) luteoloides var. Rodeck, 1931. Amer. Mus. Novitates 496: 11. ♀. Utah.

maculiventer Swenk. N. Dak.
Nomada (Heminomada) maculiventer Swenk, 1915. Nebr. Univ., Studies 15: 163. ♀ ♂.

mimula Cockerell. Va.
Nomada (Xanthidium?) mimula Cockerell, 1908. Ent. Soc. Wash. Proc. 10: 66. ♀.

miniata Smith. Ga.
Nomada miniata Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 250. ♀.

obliterata Cresson. Widespread east of Rockies. On numerous genera and several families of flowers.
?Nomada pulchella Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 247. ♂.
Nomada obliterata Cresson, 1863. Ent. Soc. Phila. Proc. 2: 301. ♀.
Nomada viburni Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 341. ♂.

ornithica Cockerell. Colo. On *Edwinia*.
Nomada (Xanthidium) ornithica Cockerell, 1906. Canad. Ent. 38: 161. ♂.

pallidella Cockerell. Colo.
Nomada pallidella Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 82. ♂.

perivincta perivincta Cockerell. Colo.
Nomada (Xanthidium) perivincta Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 80. ♀.

perivincta semirufula Cockerell. Colo.
Nomada (Xanthidium) perivincta var. *semirufula* Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 80. ♀.

placitensis Cockerell. N. Mex. On *Prunus*.
Nomada placitensis Cockerell, 1903. Ann. and Mag. Nat. Hist. (7) 12: 446. ♀.

pseudops Cockerell. Wis.
Nomada (Xanthidium) pseudops Cockerell, 1905. Canad. Ent. 37: 189. ♀.

pyrrha Cockerell. Calif.
Nomada (Xanthidium) pyrrha Cockerell, 1916. Pomona Col. Jour. Ent. Zool. 8: 55. ♀.

rhodoxantha Cockerell. Colo.
Nomada (Xanthidium) rhodoxantha Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 78. ♀.

rivalis Cresson. Calif., Wash.
Nomada rivalis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 79. ♂.
Nomada (Xanthidium) rivalis Cockerell, 1910. Psyche 17: 97.

ruidosensis Cockerell. N. Mex., Colo. On *Senecio; Chamaerhodos.*
Nomada ruidosensis Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 594. ♂.

sanctaecrucis Cockerell. Calif.
Nomada (*Xanthidium*) *sanctaecrucis* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 566. ♂.

subrutila Lovell and Cockerell. Maine, Colo.? On *Viola; Pulsatilla.*
Nomada (*Xanthidium*) *subrutila* Lovell and Cockerell, 1905. Psyche 12: 40. ♂.

subsimilis Cockerell. Calif.
Nomada (*Xanthidium*) *subsimilis* (*civilis* subsp.?) Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 567. ♂.

suda Cresson. Nev.
Nomada suda Cresson, 1879. Amer. Ent. Soc. Trans. 7: 203. ♀.

sulphurata Smith. Ga., Pa.
Nomada sulphurata Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 249. ♀.

tricurta Swenk. N. Dak. On *Zizia; Erigeron.*
Nomada (*Heminomada*) *tricurta* Swenk, 1915. Nebr. Univ., Studies 15: 11. ♀ ♂.

truttarum Cockerell. N. Mex.
Nomada (*Xanthidium*) *truttarum* Cockerell, 1909. Entomologist 42: 94. ♂.

vallesina honorata Cockerell. Colo.
Nomada (*Xanthidium*) *vallesina* var. *honorata* Cockerell, 1922. Ann. Mag. Nat. Hist. (9) 10: 269. ♀.

vallesina vallesina Cockerell. N. Mex., Colo. On *Prunus.* Inquiline of *Andrena irana* Ckll.?
Nomada vallesina Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 226. ♀.
Biology: Hicks, 1934. Colo. Univ., Studies 21: 267.

vernonensis Cockerell. B. C.
Nomada vernonensis Cockerell, 1916. Canad. Ent. 48: 273. ♂.

xantholepis Cockerell. Colo. On *Erigeron.*
Nomada (*Xanthidium*) *xantholepis* Cockerell, 1911. U. S. Natl. Mus. Proc. 41: 239. ♂.

xanthophila Cockerell. N. Mex. On *Solidago.*
Nomada xanthophila Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 414. ♂.

Subgenus HOLONOMADA Robertson

Holonomada Robertson, 1903. Canad. Ent. 35: 174, 177.
Type: *Nomada superba* Cresson. Orig. desig.
Revisions: Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 561–563, 580–588 (part). —Viereck *et al,* 1905. Canad. Ent. 37: 283–284, 287.—Swenk, 1913. Nebr. Univ., Studies 12: 8, 77–90.—Swenk, 1915. Nebr. Univ., Studies 15: 169–172.

affabilis affabilis Cresson. Northeast. United States.
Nomada affabilis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 74. ♂.
Nomada affabilis Robertson, 1895. Amer. Ent. Soc. Trans. 22: 123. ♀ ♂.

affabilis dallasensis Cockerell. Tex. On *Rubus; Cercis.*
Nomada affabilis dallasensis Cockerell, 1911. U. S. Natl. Mus. Proc. 39: 654. ♀ ♂.

edwardsii australior Cockerell. Calif.
Nomada (*Holonomada*) *edwardsii* var. *australior* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 562. ♂.

edwardsii edwardsii Cresson. West. United States east to Colo.
Nomada Edwardsii Cresson, 1878. Amer. Ent. Soc. Trans. 7: 72. "♂"=♀.
Morphology: Michener, 1944. Amer. Mus. Nat. Hist. Bul. 82: 200–225 (part).

excellens Cockerell. Calif., Nev.
Nomada (*Nomada?*) *excellens* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 573.

grandis Cresson. Colo.
Nomada grandis Cresson, 1875. Rpt. Geog. Geol. Expl. and Survey West of 100th Meridian, Ch. 7, p. 725. ♀.
Nomada (*Holonomada*) *magnifica* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 587. ♀. N. syn.

hemphilli Cockerell. Calif.
Nomada (*Holonomada*) *hemphilli* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 561. ♂.

intercepta Smith. B. C.
Nomada intercepta Smith, 1879. Descr. New Species Hym. Brit. Mus., p. 100. ♂.

nebrascensis Swenk. Nebr.
Nomada (*Holonomada*) *nebrascensis* (or *superba* var.?) Swenk, 1913. Nebr. Univ., Studies 12: 80. ♀.

pecosensis Cockerell. N. Mex., Colo. On *Malus.*
Nomada xanthophila var. *pecosensis* (n.sp.?) Cockerell, 1903. Acad. Nat.Sci. Phila. Proc. 55: 585. ♀.
Nomada (*Holonomada*) *pecosensis* Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 78. ♂ ♀.

rhodotricha Cockerell. Calif.
Nomada (*Holonomada*) *rhodotricha* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 562. ♀.

superba malvastri Swenk. Nebr. On *Malvastrum.*
Nomada (*Holonomada*) *superba malvastri* Swenk, 1913. Nebr. Univ., Studies 12: 80. ♂.

superba superba Cresson. Widespread east of Rockies. On *Erigeron; Melilotus; Medicago.*
Nomada superba Cresson, 1863. Ent. Soc. Phila. Proc. 2: 281. ♂.
Nomada superba Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 340. ♂ ♀.

vinnula Cresson. Pacific Coast, east to Colo.
Nomada vinnula Cresson, 1879. Amer. Ent. Soc. Trans. 7: 202. ♀ ♂.

Subgenus LAMINOMADA Rodeck

Nomada subg. *Laminomada* Rodeck, 1947. Ent. Soc. Amer. Ann. 40: 266.
Type: *Nomada* (*Holonomada*) *hesperia* Cockerell. Orig. desig. and monob.

hesperia falconis Rodeck. Calif. On *Rhus; Plagiobothrys; Cryptantha.*
Nomada (*Laminomada*) *hesperia falconis* Rodeck, 1947. Ent. Soc. Amer. Ann. 40: 270. ♂ ♀.

hesperia hesperia Cockerell. Calif., Oreg., Wash. On *Rhus; Plagiobothrys; Cryptantha.*
Nomada (*Holonomada*) *hesperia* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 563. ♂.
Nomada (*Holonomada*) *flavopicta* Swenk, 1913. Nebr. Univ., Studies 12: 84. ♀.
Nomada (*Laminomada*) *hesperia* Rodeck, 1937. Ent. Soc. Amer. Ann. 40: 266. ♂ ♀.

Subgenus PACHYNOMADA Rodeck

Nomada subg. *Pachynomada* Rodeck, 1945. Ent. News 56: 180.
Type: *Nomada* (*Holonomada*) *vincta* Say. Orig. desig.

adducta Cresson. Colo., Nebr. On *Helianthus; Solidago.*
Nomada adducta Cresson, 1878. Amer. Ent. Soc. Trans. 7: 73. ♂.
Nomada (*Nomada*) *adducta* Swenk, 1913. Nebr. Univ., Studies 12: 21. ♀.

asteris Swenk. Kans. On *Aster.*
Nomada (*Holonomada*) *asteris* Swenk, 1913. Nebr. Univ., Studies 12: 89. ♀.

besseyi Swenk. Kans. On *Helianthus.*
Nomada (*Holonomada*) *besseyi* Swenk, 1913. Nebr. Univ., Studies 12: 85 ♂.

morrisoni flagellaris Cockerell. Colo.
Nomada (*Xanthidium*) *morrisoni flagellaris* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 587. ♀.

morrisoni morrisoni Cresson. Colo. Inquiline of *Andrena irana* Ckll.?
Nomada Morrisoni Cresson, 1878. Amer. Ent. Soc. Trans. 7: 72. ♀.
Biology: Hicks, 1934. Colo. Univ., Studies 21: 267.

victrix Cockerell. Tex. On *Aster; Amphiachyrus.*
Nomada victrix Cockerell, 1911. U. S. Natl. Mus. Proc. 39: 657. ♀.

vincta heterochroa Cockerell. Colo.
Nomada vincta var. *heterochroa* Cockerell, 1921. Amer. Mus. Novitates 24: 1. ♂.

vincta vincta Say. Widespread east of Rockies. On *Helianthus; Grindelia; Solidago; Rudbeckia; Aster.*
Nomada vincta Say, 1837. Boston Jour. Nat. Hist. 1: 401. ♀ (♂ misdet.).
Holonomada vincta Robertson, 1903. Canad. Ent. 35: 177. ♀ ♂.

zebrata Cresson. Colo., Kans., Nebr., N. Mex., Ariz.? *On Helianthus; Cleome.*
Nomada zebrata Cresson, 1878. Amer. Ent. Soc. Trans. 7: 73. ♀ ♂.

Subgenus CALLINOMADA Rodeck

Nomada subg. *Callinomada* Rodeck, 1945. Ent. News 56: 181.
Type: *Nomada* (*Holonomada*) *antonita* Cockerell. Orig. desig.
Revision: Rodeck, 1949. Ent. Soc. Amer. Ann. 42: 174–186.

antonita Cockerell. Colo.
Nomada antonita Cockerell, 1909. Canad. Ent. 41: 35. ♂.

aquilarum Cockerell. North. Great Plains into Canada; N. Mex.? On *Erigeron; Solidago; Lactuca; Grindelia; Melilotus.*
Nomada aquilarum Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 208. ♂.
Nomada cockerelli Graenicher, 1911. Pub. Mus. City Milwaukee, Bul. 1: 240. ♂.
Nomada (*Holonomada*) *dacotensis* Swenk, 1913. Nebr. Univ., Studies 12: 88. ♀.

mutans Cockerell. Oreg., Wash.
Nomada (*Holonomada*) *mutans* Cockerell, 1910. Psyche 17: 91. ♀.

placida Cresson. Northeast. United States to Nebr. On *Aster; Boltonia; Solidago.*
Nomada placida Cresson, 1863. Ent. Soc. Phila. Proc. 2: 291. ♀ ♂.
Holonomada placida Robertson, 1903. Canad. Ent. 35: 177. ♀ ♂.
Nomada (*Callinomada*) *placida* Rodeck, 1945. Ent. News 56: 181.

snowii Cresson. Colo., Nebr., S. Dak., N. Dak. On *Grindelia; Solidago.*
Nomada Snowii Cresson, 1878. Amer. Ent. Soc. Trans. 7: 75. ♀ ♂.
Nomada (*Holonomada*) *omahaensis* Swenk, 1915. Nebr. Univ., Studies 15: 171. ♂.

verecunda Cresson. Oreg., Nev., Calif.
Nomada verecunda Cresson, 1879. Amer. Ent. Soc. Trans. 7: 203. ♀ ♂.

Subgenus MICRONOMADA Cockerell and Atkins

Nomada subg. *Micronomada* Cockerell and Atkins, 1902. Ann. Mag. Nat. Hist. (7) 10: 44.
Type: *Nomada modesta* Cresson. Orig. desig. and monob.
Revisions: Robertson, 1903. Canad. Ent. 35: 173.—Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 593 (part), 608–611.—Swenk, 1913. Nebr. Univ., Studies 12: 12, 104–112.—Swenk, 1915. Nebr. Univ., Studies, 15: 181–188.
Cephen Robertson, 1903. Canad. Ent. 35: 174, 176.
Type: *Nomada texana* Cresson. Orig. desig. and monob.
Revision: Swenk, 1913. Nebr. Univ., Studies 12: 12.

amorphae Swenk. Nebr., Colo. On *Amorpha.*
Nomada (*Micronomada*) *amorphae* Swenk, 1913. Nebr. Univ., Studies 12: 108. ♀ ♂.

arenicola Swenk. Nebr. On *Amorpha; Asclepias; Verbena; Silphium.*
Nomada (*Micronomada*) *arenicola* Swenk, 1913. Nebr. Univ., Studies 12: 107. ♀ ♂.

belfragei Cresson. Tex., Kans.
Nomada Belfragei Cresson, 1878. Amer. Ent. Soc. Trans. 7: 72. ♀.
Nomada belfragei var. *xanthogaster* Cockerell, 1911. U. S. Nat. Mus. Proc. 39: 644. ♀.
Nomada (*Micronomada*) *belfragei* Swenk, 1915. Nebr. Univ., Studies 15: 184. ♀ ♂.

crucis Cockerell. Ariz., N. Mex., Tex., Colo., Utah. On *Verbesina; Pyrrhopappus; Marilaunidium; Sphaeralcea; Aster; Monarda; Gaillardia.*
Nomada crucis (vel. *texana* subsp.?) Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 212. ♂.

fervida Smith. Fla., Ga., La.
Nomada fervida Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 247. ♀.
Nomada (*Micronomada*) *crassula* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 610. "♀"=♂.

festiva Cresson. N. J.
Nomada festiva Cresson, 1863. Ent. Soc. Phila. Proc. 2: 289. ♀.

formula Viereck. Calif.
Nomada formula Viereck, 1903. Acad. Nat. Sci. Phila. Proc. 54: 728. ♀.
Nomada formula Cockerell, 1911. U. S. Natl. Mus. Proc. 39: 658. ♂.

garciana Cockerell. N. Mex., Tex. On *Melilotus; Helianthus.*
Nomada (*Micronomada*) *garciana* (*snowi* subsp.?) Cockerell, 1907. Entomologist 40: 265. ♂.

gutierreziae Cockerell. N. Mex., Ariz., Colo. On *Gutierrezia.*
Nomada gutierreziae Cockerell, 1896. Canad. Ent. 28: 284. ♀.

heiligbrodtii Cresson. Tex., Kans.
Nomada Heiligbrodtii Cresson, 1878. Amer. Ent. Soc. Trans. 7: 75. ♀.
Nomada heiligbrodtii Cockerell, 1919. U. S. Natl. Mus. Proc. 55: 180. ♂.

lamarensis Cockerell. Colo., Tex.
Nomada (*Micronomada*) *lamarensis* Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 76. ♂.
Nomada lamarensis Cockerell, 1911. U. S. Natl. Mus. Proc. 39: 652. ♂ ♀.

limata Cresson. Mexico; Tex.
Nomada limata Cresson, 1878. Amer. Ent. Soc. Trans. 7: 76. ♀.

lippiae lippiae Cockerell. N. Mex. On *Lippia.*
Nomada lippiae Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 214. ♂.

lippiae sublippiae Cockerell. N. Mex. On *Solidago.*
Nomada lippiae var. *sublippiae* Cockerell, 1907. Entomologist 40: 265. ♂.

melanoptera Cockerell. Colo.
Nomada (*Micronomada*) *melanoptera* Cockerell, 1921. Amer. Mus. Novitates 24: 5. ♀.

mitchelli Cockerell. Tex.
Nomada (*Micronomada*) *mitchelli* Cockerell, 1911. U. S. Natl. Mus. Proc. 39: 654. ♀ ♂.

modesta Cresson. Widespread. On numerous flowers.
Nomada modesta Cresson, 1863. Ent. Soc. Phila. Proc. 2: 286. ♀ ♂.
Nomada (*Micronomada*) *modesta* var. *vegana* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 610. ♀.
Nomada (*Micronomada*) *vegana* var. *nitescens* Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 76. ♀.

neomexicana Cockerell. N. Mex. On *Verbesina; Prosopis.*
Nomada neomexicana (vel. *texana* subsp.?) Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 209. ♀ ♂.

pallidelutea Swenk. Ariz.; L. Calif.
Nomada (*Micronomada*) *pallidelutea* Swenk, 1915. Nebr. Univ., Studies 15: 32. ♀ ♂.

Nomada (*Micronomada*) ***peninsularis*** Cockerell, 1925. Pan-Pacific Ent. 1: 180. ♀ ♂.

putnami Cresson. Utah, Colo., Nebr., Kans., N. Mex.
Nomada Putnami Cresson, 1876. Davenport Acad. Nat. Sci. Proc. 1: 210. ♀, "♀"=♂.
Nomada (*Micronomada*) ***putnami*** Swenk, 1913. Nebr. Univ., Studies 12: 111. ♀.

ridingsii Cresson. Colo.
Nomada Ridingsii Cresson, 1878. Amer. Ent. Soc. Trans. 7: 74. ♀.

semisuavis Cockerell. Wash., Calif.
Nomada (*Micronomada*) ***semisuavis*** Cockerell, 1910. Psyche 17: 92. ♂.
Nomada semisuavis Cockerell, 1911. U. S. Natl. Mus. Proc. 39: 658. ♀.

simplicicoxa Swenk. Ariz.
Nomada (*Micronomada*) ***simplicicoxa*** Swenk, 1915. Nebr. Univ., Studies 15: 182. ♀ ♂.

suavis Cresson. Calif., Oreg.
Nomada suavis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 74. ♀ (♂ misdet.).
Nomada flavipes Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 426. ♀. N. syn.

texana Cresson. Tex. and La. north to Ill., west to Colo., Ariz. On numerous flowers.
Nomada texana Cresson, 1872. Amer. Ent. Soc. Trans. 4: 271. ♀ ♂.
Cephen texanus Robertson, 1903. Canad. Ent. 35: 176. ♀ ♂.

tiftonensis Cockerell. East. United States to Minn. On *Hieracium*.
Nomada (*Micronomada*) ***tiftonensis*** Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 610. ♂.
Nomada (*Micronomada*) ***modesta rivertonensis*** Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 610. ♀. N. syn.

uhleri Cockerell. Colo.
Nomada (*Micronomada*) ***uhleri*** Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 77. ♂.

vierecki Cockerell. Mexico; N. Mex., Tex., Colo., Nebr. On *Dithyrea; Populus; Rudbeckia; Convolvulus; Prosopis*.
Nomada vierecki Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 211. ♀ ♂.
Nomada putnami Cockerell, 1911. U. S. Natl. Mus. Proc. 39: 651.
Nomada (*Micronomada*) ***vierecki convolvuli*** Swenk, 1913. Nebr. Univ., Studies 12: 109. ♀ ♂.
Nomada vierecki race ***cushmani*** Cockerell, 1926. Ann. Mag. Nat. Hist. (9) 17: 307.

wheeleri engelmanniae Cockerell. Tex. On *Engelmannia*.
Nomada wheeleri engelmanniae Cockerell, 1911. U. S. Natl. Mus. Proc. 39: 649. ♀ (♂ misdet.).

wheeleri wheeleri Cockerell. Tex.
Nomada (*Micronomada*) ***wheeleri*** Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 604. ♀.

wisconsinensis Graenicher. Wis., Minn., Ill.
Nomada wisconsinensis Graenicher, 1911. Pub. Mus. City Milwaukee, Bul. 1: 239.

Subgenus CENTRIAS Robertson

Centrias Robertson, 1903. Canad. Ent. 35: 174, 176.
Type: ***Nomada erigeronis*** Robertson. Orig. desig.
Revisions: Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 588, 591–593, 608–612.—Viereck *et al*, 1905. Canad. Ent. 37: 283.—Swenk, 1913. Nebr. Univ., Studies 12: 13, 103–104.

erigeronis Robertson. Ill., Kans., Nebr. On *Coreopsis; Erigeron*.
Nomada erigeronis Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 341. ♀.
Centrias erigeronis Robertson, 1903. Canad. Ent. 35: 176. ♀ ♂.
Centrias erigerontis (*!*) Robertson, 1928. Flowers and Insects, Carlinville, Ill., pp. 9, 66, 69.

Subgenus NOMADULA Cockerell

Nomada subg. *Nomadula* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 611. Type: (*Nomada americana* "Kirby," Robertson, Cockerell)= *Nomada articulata* Smith. Orig. desig.

Revisions: Viereck *et al*, 1905. Canad. Ent. 37: 285–287.—Swenk, 1913. Nebr. Univ., Studies 12: 13, 101–103. Swenk, 1915. Nebr. Univ., Studies 15: 25–27.

articulata Smith. Widespread east of Rockies. On numerous flowers.
Nomada americana Kirby, 1837. Fauna Bor.-Amer., p. 269. ♀. Type missing; species uncertain.
Nomada articulata Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 248. ♂.
Nomada (*Centrias*) *americana dacotana* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 592. ♂.
Nomada americana Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 310. Name invalid.

crotchii crotchii Cresson. Calif.
Nomada Crotchii Cresson, 1878. Amer. Ent. Soc. Trans. 7: 81. ♀.

crotchii nigrior Cockerell. Calif.
Nomada (*Xanthidium*) *crotchii* var. *nigrior* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 564. ♀.
Nomada crotchii nigrior Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 54. ♂.

electella Cockerell. Ga.
Nomada electella Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 612. ♀.

erythrochroa Cockerell. Wash., Idaho.
Nomada erythrochroa Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 203. ♀.

erythrospila Cockerell. Calif.
Nomada (*Nomada*) *erythrospila* Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 56. ♂.

frankei Cockerell. Colo.
Nomada frankei Cockerell, 1929. N. Y. Ent. Soc. Jour. 37: 443. ♂.

frieseana Cockerell. Colo.
Nomada Frieseana Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 14: 28. ♀.
Nomada (*Nomadula*) *frieseana* Cockerell, 1911. U. S. Natl. Mus. Proc. 41: 237. ♂.

incerta Cresson. Conn., N. J., Pa., Md., Ill., Colo.
Nomada incerta Cresson, 1863. Ent. Soc. Phila. Proc. 2: 309. ♀.

jennei Cockerell. Wash.
Nomada Jennei Cockerell, 1906. Canad. Ent. 38: 281. ♂.

martinella Cockerell. N. Mex., Colo. On *Prunus*.
Nomada (*Centrias*) *martinella* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 590. ♀.
Nomada (*Nomadula*) *martinella* Cockerell, 1905. Colo. Agr. Expt. Sta. Bul. 94: 76. ♀ ♂.

melliventris Cresson. Calif.
Nomada melliventris Cresson, 1878. Amer. Ent. Soc. Trans. 7: 82. ♂.

pascoensis Cockerell. Wash., Calif.
Nomada (*Xanthidium*) *pascoensis* Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 564. ♂.

rohweri aureopilosa Swenk. Colo.
Nomada (*Micronomada*) *aureopilosa* Swenk, 1913. Nebr. Univ., Studies 12: 111. ♀.
Nomada (*Micronomada*) *rohweri aureopilosa* Swenk, 1915. Nebr. Univ., Studies 15: 32.

rohweri rohweri Cockerell. Colo. On *Senecio; Geranium; Sedum*.
Nomada rohweri Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 438. ♀ ♂.

rubicunda Olivier. East. United States to Minn.
Nomada rubicunda Olivier, 1811. Encycl. Meth., v. 8, p. 365.
Nomada torrida Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 250.

scita Cresson. Colo., Nebr., N. Dak. On numerous flowers.
Nomada scita Cresson, 1878. Amer. Ent. Soc. Trans. 7: 77. ♂.
Nomada (Nomadula) scita Swenk, 1915. Nebr. Univ., Studies 15: 181. ♀ ♂.

scitiformis Cockerell. Oreg.
Nomada (Centrias) scitiformis Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 591. ♂.

semiscita Cockerell. Colo. On *Senecio.*
Nomada semiscita Cockerell, 1904. Ann. and Mag. Nat. Hist. (7) 14: 28. ♂.

sophiarum Cockerell. N. Mex. On *Sophia.*
Nomada sophiarum Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 213. ♂.

Genus HEXEPEOLUS Linsley and Michener

Hexepeolus Linsley and Michener, 1937. Pan-Pacific Ent. 13: 77.
Type: *Hexepeolus mojavensis* Linsley and Michener. Orig. desig.
Revisions: Linsley and Michener, 1939. Amer. Ent. Soc. Trans. 65: 287–289.—Michener, 1944. Amer. Mus. Nat. Hist. Bul. 82: 274.

mojavensis Linsley and Michener. Calif. On *Eriodictyon.*
Hexepeolus mojavensis Linsley and Michener, 1937. Pan-Pacific Ent. 13: 78. ♀ ♂.

rhodogyne Linsley and Michener. Calif. On *Larrea.*
Hexepeolus rhodogyne Linsley and Michener, 1937. Pan-Pacific Ent. 13: 80. ♀ ♂.

Genus PARANOMADA Linsley and Michener

Paranomada Linsley and Michener, 1937. Pan-Pacific Ent. 13: 82.
Type: *Paranomada nitida* Linsley and Michener. Monob. and orig. desig.
Revisions: Linsley and Michener, 1939. Amer. Ent. Soc. Trans. 65: 289–291 (genera).—Linsley, 1943. Amer. Ent. Soc. Trans. 69: 103–104 (species keys).—Michener, 1944. Amer. Mus. Nat. Hist. Bul. 82: 274 (genera).—Linsley, 1945. Ent. News 56: 149–151 (species keys).

californica Linsley. Calif.
Paranomada californica Linsley, 1945. Ent. News 56: 149. ♀ ♂.

nitida Linsley and Michener. Ariz.
Paranomada nitida Linsley and Michener, 1937. Pan-Pacific Ent. 13: 83. ♀.

velutina Linsley. Ariz.; L. Calif. On *Eriogonum; Mirabilis; Aplopappus.*
Paranomada velutina Linsley, 1939. Pan-Pacific Ent. 15: 10. ♂. Linsley, 1943. Amer. Ent. Soc. Trans. 69: 105. ♀ ♂.

Genus HESPERONOMADA Linsley

Hesperonomada Linsley, 1939. Pan-Pacific Ent. 15: 5.
Type: *Hesperonomada melanantha* Linsley. Monob. and orig. desig.
Revisions: Linsley and Michener, 1939. Amer. Ent. Soc. Trans. 65: 291–292.—Michener, 1944. Amer. Mus. Nat. Hist. Bul. 82: 274–275.

melanantha Linsley. Calif.
Hesperonomada melanantha Linsley, 1939. Pan-Pacific Ent. 15: 6. ♀ ♂.

Genus TRIOPASITES Linsley

Triopasites Linsley, 1939. Pan-Pacific Ent. 15: 8.
Type: *Triopasites timberlakei* Linsley. Monob. and orig. desig.
Revisions: Linsley and Michener, 1939. Amer. Ent. Soc. Trans. 65: 293–294.—Linsley, 1943. Amer. Ent. Soc. Trans. 69: 99–103.—Michener, 1944. Amer. Mus. Nat. Hist. Bul. 82: 275.

laguna Linsley. Lower Calif.
Triopasites laguna Linsley, 1943. Amer. Ent. Soc. Trans. 69: 102. ♂.

micheneri Linsley. Ariz. On *Verbesina*.
Triopasites micheneri Linsley, 1943. Amer. Ent. Soc. Trans. 69: 101. ♀.

pasitura (Cockerell), n. comb. Tex. On *Convolvulus*.
Nomada pasitura Cockerell, 1935. Amer. Mus. Novitates 766: 6. ♂.

penniger (Cockerell), n. comb. N. Mex.
Nomada penniger Cockerell, 1894. Ent. News 5: 235. ♀?

timberlakei Linsley. Calif.
Triopasites timberlakei Linsley, 1939. Pan-Pacific Ent. 15: 9. ♀.

Genus MELANOMADA Cockerell

Melanomada Cockerell, 1903. Acad. Nat. Sci. Phila. Proc. 55: 587.
Type: ***Nomada grindeliae*** Cockerell. Monob. and orig. desig.
Revision: Michener, 1944. Amer. Mus. Nat. Hist. Bul. 82: 275.

grindeliae (Cockerell). Nebr., Mont. On *Grindelia; Solidago; Euphorbia; Lactuca*.
Nomada grindeliae Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 210. ♂.

heleniella (Cockerell). Tex., Nebr. On *Helenium*.
Nomada (Melanomada) heleniella Cockerell, 1911. U. S. Natl. Mus. Proc. 39: 648. ♀ ♂.

sidaefloris (Cockerell). N. Mex. On *Sida*.
Nomada pennigera var. ***sidaefloris*** Cockerell, 1898. N. Mex. Univ. Bul. 1: 59. ♂.

Tribe HOLCOPASITINI LINSLEY, new name[77]

Genus HOLCOPASITES Ashmead

Revision: Linsley, 1943. Amer. Ent. Soc. Trans. 69: 119 (as *Neopasites*).

Subgenus HOLCOPASITES Ashmead

Holcopasites Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 82.—Crawford, 1915. Insecutor Inscitiae Menstruus 3: 123.
Type: ***Phileremus illinoiensis*** Robertson. Desig. by Crawford, 1915.

acanthochilus Crawford. Tex.
Holcopasites acanthochilus Crawford, 1915. Insecutor Inscitiae Menstruus 3: 125. ♀.

calliopsidis (Linsley). Iowa, Kans., Mont., Colo. Host: *Calliopsis andreniformis* Smith.
Neopasites calliopsidis Linsley, 1943. Amer. Ent. Soc. Trans. 69: 137. ♀ ♂.
Biology: Ainslee, 1937. Canad. Ent. 69: 99 (as *stevensi*).

carinatus (Linsley). Tex.
Neopasites carinatus Linsley, 1943. Amer. Ent. Soc. Trans. 69: 127. ♀.

eamia (Cockerell). Tex.
Neopasites eamia Cockerell, 1909. Ann. Mag. Nat. Hist. (8) 4: 29. ♂.

elegans (Linsley). Tex.
Neopasites elegans Linsley, 1944. N. Y. Ent. Soc. Jour. 52: 277. ♀.

haematurus Cockerell and Hicks. Iowa, Kans., Colo.
Holcopasites haematurus Cockerell and Hicks, 1926. Ent. News 37: 107. ♂.

heliopsis (Robertson). Ill. to Alta., Mont., Colo.
Ammobates heliopsis Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 350. ♂.

illinoiensis (Robertson). Mass. to Ill., N. Car., Miss.
Phileremus illinoiensis Robertson, 1891. Amer. Ent. Soc. Trans. 18: 64. ♀.
Holcopasites pratti (Ashmead ms.) Crawford, 1915. Insecutor Inscitiae Menstruus 3: 123. *Nom. nud.* in syn.

[77] By. E. Gorton Linsley, University of California.

knulli (Linsley). Tex.
Neopasites knulli Linsley, 1944. N. Y. Ent. Soc. Jour. 52: 277. ♀.

lutzi Cockerell. Colo.
Holcopasites lutzi Cockerell, 1934. Amer. Mus. Novitates 697: 12. ♂.

minimus (Linsley). Ariz.
Neopasites minimus Linsley, 1943. Amer. Ent. Soc. Trans. 69: 126. ♀.

pulchellus (Cresson). Colo., N. Mex.
Phileremus pulchellus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 84. ♀ ♂.

punctulatus (Linsley). D. C.
Neopasites punctulatus Linsley, 1943. Amer. Ent. Soc. 69: 135. ♂.

robertsoni pubescens (Linsley). N. Mex.
Neopasites robertsoni pubescens Linsley, 1943. Amer. Ent. Soc. Trans. 69: 131. ♂.

robertsoni robertsoni (Crawford). Alta. to N. Dak., Nebr. and Colo.
Neopasites robertsoni Crawford, 1906. Canad. Ent. 38: 283. ♀ ♂.

stevensi Crawford. Alta. to N. Dak. and Nebr.
Holcopasites stevensi Crawford, 1915. Insecutor Inscitiae Menstruus 3: 125. ♀ ♂.

texanus Crawford. Tex.
Holcopasites texanus Crawford, 1915. Insecutor Inscitiae Menstruus 3: 126. ♂.

Subgenus TRICHOPASITES Linsley

Neopasites subg. *Trichopasites* Linsley, 1942. Pan-Pacific Ent. 18: 127.
Type: *Neopasites* (*Trichopasites*) *insoletus* Linsley. Monob. and orig. desig.

insoletus (Linsley). Ariz.
Neopasites (*Trichopasites*) *insoletus* Linsley, 1942. Pan-Pacific Ent. 18: 128. ♀.

Subgenus ODONTOPASITES Linsley

Neopasites subg. *Odontopasites* Linsley, 1942. Pan-Pacific Ent. 18: 128.
Type: *Neopasites* (*Odontopasites*) *arizonicus* Linsley. Monob. and orig. desig.

arizonicus (Linsley). Ariz.; Baja Calif.
Neopasites (*Odontopasites*) *arizonicus* Linsley, 1942. Pan-Pacific Ent. 18: 129. ♀ ♂.

Tribe BIASTINI[78]

Genus NEOPASITES Ashmead

Revision: Linsley, 1943. Amer. Ent. Soc. Trans. 69: 141 (as *Gnathopasites*).

Subgenus NEOPASITES Ashmead

Neopasites Ashmead, 1898. Psyche 8: 284.
Type: *Phileremus fulviventris* Cresson. Monob. and orig. desig.
Gnathopasites Linsley and Michener, 1939. Amer. Ent. Soc. Trans. 65: 272.
Type: *Phileremus fulviventris* Cresson. Orig. desig.

fulviventris (Cresson). Calif.
Phileremus fulviventris Cresson, 1873. Amer. Ent. Soc. Trans. 8: 83. ♂.

sierrae (Linsley). Calif.
Gnathopasites (*Gnathopasites*) *sierrae* Linsley, 1943. Amer. Ent. Soc. Trans. 6: 144. ♀ ♂.

Subgenus MICROPASITES Linsley

Gnathopasites subg. *Micropasites* Linsley, 1942. Pan-Pacific Ent. 18: 130.
Type: *Neopasites cressoni* Crawford. Monob. and orig. desig.

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cressoni Crawford. Calif.
Neopasites cressoni Crawford, 1916. Insecutor Inscitiae Menstruus 4: 136. ♂.

mojavensis (Linsley). Calif.
Gnathopasites (*Micropasites*) *mojavensis* Linsley, 1943. Amer. Ent. Soc. Trans. 69: 148. ♀.

timberlakei (Linsley). Calif.
Gnathopasites (*Micropasites*) *timberlakei* Linsley, 1943. Amer. Ent. Soc. Trans. 69: 147. ♀ ♂.

Tribe TOWNSENDIELLINI[79]

Genus TOWNSENDIELLA Crawford

Revision: Linsley, 1943. Amer. Ent. Soc. Trans. 69: 93.

Subgenus TOWNSENDIELLA Crawford

Townsendiella Crawford, 1916. Insecutor Inscitiae Menstruus 4: 138.
Type: *Townsendiella pulchra* Crawford. Monob.

pulchra Crawford. N. Mex., south. Calif.; Baja Calif.
Townsendiella pulchra Crawford, 1916. Insecutor Inscitiae Menstruus 4: 138. ♀.

Subgenus XEROPASITES Linsley

Townsendiella subg. *Xeropasites* Linsley, 1942. Pan-Pacific Ent. 18: 130.
Type: *Townsendiella* (*Xeropasites*) *rufiventris* Linsley. Monob. and orig. desig.

rufiventris Linsley. South. Calif.
Townsendiella (*Xeropasites*) *rufiventris* Linsley, 1942. Pan-Pacific Ent. 18: 130. ♀ ♂.

Subgenus EREMOPASITES Linsley

Townsendiella subg. *Eremopasites* Linsley, 1942. Pan-Pacific Ent. 18: 131.
Type: *Townsendiella californica* Michener. Monob. and orig. desig.

californica Michener. South. Calif. Host: *Hesperapis rufipes* (Ashm.).
Townsendiella californica Michener, 1936. Ent. News 47: 181. ♀ ♂.

Tribe NEOLARRINI[80]

Genus NEOLARRA Ashmead

Revision: Michener, 1939. Amer. Ent. Soc. Trans. 65: 347.

Subgenus NEOLARRA Ashmead

Neolarra Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 8.
Type: *Neolarra pruinosa* Ashmead. Monob.

abdominalis Michener. Mont.
Neolarra (*Neolarra*) *abdominalis* Michener, 1939. Amer. Ent. Soc. Trans. 65: 352. ♀ ♂.

alba Cockerell. South. Calif.
Neolarra alba Cockerell, 1916. Ann. Mag. Nat. Hist. (8) 17: 285. ♂.

californica Michener. South. Calif.
Neolarra (*Neolarra*) *californica* Michener, 1939. Amer. Ent. Soc. Trans. 65: 356. ♀ ♂.

congregata Crawford. Tex.
Neolarra congregata Crawford, 1907. N. Y. Ent. Soc. Jour. 15: 181. ♀ ♂.

[80] By E. Gorton Linsley, University of California.

helianthi Cockerell. Colo.
Neolarra congregata helianthi Cockerell, 1936. Amer. Mus. Novitates 831: 5. ♂.

linsleyi Michener. South. Calif.
Neolarra (Neolarra) linsleyi Michener, 1939. Amer. Ent. Soc. Trans. 65: 357. ♀ ♂.

pruinosa Ashmead. Alta. to Colo., N. Mex.
Neolarra pruinosa Ashmead, 1890. Colo. Biol. Assoc. Bul. 1: 8. ♀.
Neolarra vittata Cockerell, 1916. Ann. Mag. Nat. Hist. (8) 17: 285. ♂.
Taxonomy: Baker, 1896. Ent. Soc. Wash. Proc. 4: 23, ♀ ♂.

vandykei Michener. Calif.
Neolarra (Neolarra) vandykei Michener, 1939. Amer. Ent. Soc. Trans. 65: 353. ♀ ♂.

verbesinae (Cockerell). Nebr. to N. Mex.
Phileremus verbesinae Cockerell, 1895. Psyche 7 (sup.): 10. ♀ ♂.

Subgenus PHILEREMULUS Cockerell

Phileremulus Cockerell, 1895. Psyche 7 (sup.): 9.
Type: *Phileremulus vigilans* Cockerell. Monob. and orig. desig.

cockerelli (Crawford). Tex., Tenn.
Phileremulus cockerelli Crawford, 1916. Insecutor Inscitiae Menstruus 4: 139. ♀.

coloradensis Michener. Colo.
Neolarra (Phileremulus) coloradensis Michener, 1939. Amer. Ent. Soc. Trans. 65: 352. ♀ ♂.

mallochi (Crawford). Alta.
Phileremulus mallochi Crawford, 1912. Canad. Ent. 44: 359. ♂.

vigilans (Cockerell). N. Mex., south. Calif.
Phileremulus vigilans Cockerell, 1895. Psyche 7 (sup.): 9. ♂ ♀.
Phileremulus nanus Cockerell, 1895. Psyche 7 (sup.): 9. ♀.

Tribe AMMOBATINI[81]

Genus OREOPASITES Cockerell

Oreopasites Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 442.
Type: *Oreopasites scituli* Cockerell. Monob.
Revision: Linsley, 1941. Amer. Ent. Soc. Trans. 66: 307.

albinota Linsley. Calif.
Oreopasites albinota Linsley, 1941. Amer. Ent. Soc. Trans. 66: 313. ♀.

arizonica Linsley. Ariz.
Oreopasites arizonica Linsley, 1941. Amer. Ent. Soc. Trans. 66: 310. ♀.

euphorbiae Cockerell. South. Calif. Host: *Nomadopsis euphorbiae* (Ckll.).
Oreopasites euphorbiae Cockerell, 1929. Pan-Pacific Ent. 5: 105. ♀ ♂.

scituli Cockerell. Colo. Host: *Nomadopsis scitula* (Cress.).
Oreopasites scituli Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 442. ♀ ♂.

vanduzeei diabloensis Linsley. North. Calif. Host: *Nomadopsis* sp.
Oreopasites vanduzeei diabloensis Linsley, 1941. Amer. Ent. Soc. Trans. 66: 315. ♀ ♂.

vanduzeei melanantha Linsley. North. Calif. (Sierra Nevada). Host: *Nomadopsis anthidia* (Fowler).
Oreopasites vanduzeei melanantha Linsley, 1941. Amer. Ent. Soc. Trans. 66: 316. ♀ ♂.

vanduzeei vanduzeei Cockerell. North. Calif. (Cent. Valley). Host: *Nomadopsis equina* (Ckll.).
Oreopasites vanduzeei Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 202. ♀.

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vanduzeei vernalis Linsley. South Calif. Host: *Nomadopsis* sp.
Oreopasites vanduzeei vernalis Linsley, 1941. Amer. Ent. Soc. Trans. 66: 317. ♀ ♂.

vanduzeei xerophila Linsley. South. Calif. (deserts). Host: *Nomadopsis* sp.
Oreopasites vanduzeei xerophila Linsley, 1941. Amer. Ent. Soc. Trans. 66: 318. ♀ ♂.

Tribe PROTEPEOLINI[82]

Genus PROTEPEOLUS Linsley and Michener

Protepeolus Linsley and Michener, 1937. Pan-Pacific Ent. 13: 75.
Type: *Protepeolus singularis* Linsley and Michener. Monob. and orig. desig.

integer Linsley. Ariz.
Protepeolus integer Linsley, 1939. Pan-Pacific Ent. 15: 4. ♂.

singularis Linsley and Michener. N. Mex.
Protepeolus singularis Linsley and Michener, 1937. Pan-Pacific Ent. 13: 76. ♀.

Tribe EPEOLINI[83]

Genus EPEOLUS Latreille

Epeolus Latreille, 1802. Hist. Nat. Fourmis, p. 427.
Type: (*Nomada variegata* Fabricius)=*Apis variegata* Linnaeus. Monob.
Pyrrhomelecta Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 66.
Type: *Epeolus glabratus* Cresson. Monob. and orig. desig.
Argyroselenis Robertson, 1903. Canad. Ent. 35: 284.
Type: *Triepeolus minimus* Robertson. Monob. and orig. desig.
Key: Cockerell, 1928. Colo. Univ., Studies 16: 105.

ainsliei Crawford. Iowa.
Epeolus ainsliei Crawford, 1932. Ent. Soc. Wash. Proc. 34: 74. ♀.

americanus (Cresson). Canada; Colo.
Phileremus americanus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 83. ♂ ♀.
Taxonomy: Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 13: 33.—Linsley, 1939. Pan-Pacific Ent. 15: 1.

arciferus Cockerell. Calif.
Epeolus arciferus Cockerell, 1924. Calif. Acad. Sci. Proc. (4) 13: 319. ♀.

asperatus Cockerell. Calif.
Epeolus asperatus Cockerell, 1909. Ann. Mag. Nat. Hist. (8) 5: 25. ♀.
Taxonomy: Cockerell, 1934. Amer. Mus. Novitates 697: 12, ♀.

autumnalis Robertson. Ill. Host: ?*Colletes compactus* Cress.
Epeolus autumnalis Robertson, 1902. Ent. News 13: 81. ♀.
Taxonomy: Robertson, 1903. Canad. Ent. 35: 287, 288, ♀.

banksi (Cockerell). Va.
Triepeolus banksi Cockerell, 1907. Entomologist 40: 135. ♂.

barberiellus Cockerell. N. Mex.
Epeolus barberiellus Cockerell, 1907. Entomologist 40: 266. ♀.

beulahensis Cockerell. N. Mex., Colo., Iowa.
Epeolus beulahensis Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 13: 40. ♀.

bifasciatus Cresson. Colo. to Ill., north. Mex., Tex., Fla. Host: ?*Colletes latitarsis* Robertson.
Epeolus bifasciatus Cresson, 1864. Ent. Soc. Phila. Proc. 3: 38. ♂.
Taxonomy: Robertson, 1903. Canad. Ent. 33: 287, 288, ♀ ♂ (key).

compactus Cresson. Tex. to Colo., Nev., Calif.
Epeolus compactus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 89. ♀ ♂.
Taxonomy: Brues, 1903. Ent. News 14: 79 (key).

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[83] By E. Gorton Linsley, University of California.

crucis Cockerell. N. Mex.
Epeolus crucis Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 13: 39. ♀.

distinctus Cresson. Ga.
Epeolus distinctus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 84. ♂ ♀.

eastwoodae Cockerell. Calif. (San Miguel Isl.).
Epeolus eastwoodae Cockerell, 1937. Pan-Pacific Ent. 13: 149. ♂.

fumipennis Say. Tex., north. Mex.
Epeolus fumipennis Say, 1837. Boston Jour. Nat. Hist. 1: 403.

gabrielis Cockerell. Calif.
Epeolus gabrielis Cockerell, 1909. Ann. Mag. Nat. Hist. (8) 5: 26. ♂.
Epeolus geminatus Cockerell and Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 315. ♀ ♂.

glabratus Cresson. Ga., Fla.
Epeolus glabratus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 90. ♂.

hitei Cockerell. Colo.
Epeolus hitei Cockerell, 1908. Entomologist 41: 60. ♀.

humillimus Cockerell. Wash., Oreg.
Epeolus humillimus Cockerell, 1918. Ann. Mag. Nat. Hist. 9: 160. ♂.

interruptus Robertson. Ill., Colo., Calif. Host: ?*Colletes aestivalis* Patton.
Epeolus interruptus Robertson, 1900. Acad. Sci. St. Louis, Trans. 10: 55. ♀.
Taxonomy: Robertson, 1903. Canad. Ent. 33: 287, 288, ♀ ♂ (key).

lectiformis Cockerell. Colo.
Epeolus lectiformis Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 623. ♀.

lectoides Robertson. Ill.
Epeolus lectoides Robertson, 1901. Canad. Ent. 33: 231. ♀.
Taxonomy: Robertson, 1903. Canad. Ent. 35: 287, 288, ♀ ♂ (key).

lectus Cresson. Kans., S. Dak.
Epeolus lectus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 88. ♀.
Epeolus agnathus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 89. ♂.

lutzi Cockerell. Colo., Utah, Alta.
Epeolus lutzi Cockerell, 1921. Amer. Mus. Novitates 23: 16. ♂ ♀.
Epeolus lutzi dimissus Cockerell, 1921. Amer. Mus. Novitates 23: 16. ♀.

melectimimus Cockerell and Sandhouse. Calif.
Epeolus melectimimus Cockerell and Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 317. ♂.

mercatus Fabricius. "Carolina."
Epeolus mercatus Fabricius, 1804. Systema Piezatorum, p. 389.

mesillae (Cockerell). N. Mex., south. Calif.
Phileremus mesillae Cockerell, 1895. Psyche 7 (sup.): 10. ♂.
Taxonomy: Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 13: 42. ♀.

minimus (Robertson). Ill., Wis., Colo. Host: *Colletes eulophi* Robertson.
Triepeolus minimus Robertson, 1902. Ent. News 13: 81.
Biology: Graenicher, 1906. Wis. Nat. Hist. Soc. Bul. 4: 135.

montanus (Cresson). Nev.
Phileremus montanus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 83. ♂.

novomexicanus Cockerell. N. Mex.
Epeolus novomexicanus Cockerell, 1912. Ann. Mag. Nat. Hist. (8) 10: 487. ♂.

olympiellus Cockerell. Wash.
Epeolus olympiellus Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 13: 41. ♂.

palmarum Linsley. South. Calif.
Epeolus mesillae palmarum Linsley, 1939. Pan-Pacific Ent. 15: 2.

pilatei Cockerell. Calif.
Epeolus pilatei Cockerell, 1924. Calif. Acad. Sci. Proc. (4) 13: 320. ♀.

piscatoris Cockerell. South. Calif. Is.
Epeolus piscatoris Cockerell, 1939. Calif. Acad. Sci. Proc. (4) 23: 432. ♀.

pusillus Cresson. N. H. to Wyo., Colo., Tex. Host: ?*Colletes americanus* Cresson.
Epeolus pusillus Cresson, 1864. Ent. Soc. Phila. Proc. 2: 393. ♀.
Taxonomy: Robertson, 1903. Canad. Ent. 35: 287, 288, ♀ ♂ (key).—Brues, 1903. Ent. News 14: 80, 82 (key).

rubrostictus Cockerell and Sandhouse. Calif.
Epeolus rubrostictus Cockerell and Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 318. ♀.

rufomaculatus Cockerell and Sandhouse. Calif., Utah.
Epeolus rufomaculatus Cockerell and Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 314. ♀ ♂.

rufulus Cockerell. Colo.
Epeolus rufulus Cockerell, 1941. Canad. Ent. 73: 36. ♀.

scelestus Cresson. Tex.
Epeolus scelestus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 86. ♀.
Epeolus scelestus var. *tuberculatis* Brues, 1903. Ent. News 14: 79. ♀.

scutellaris Say. East. Canada to Minn., Tex., Fla.
Epeolus scutellaris Say, 1924. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 355. ♀.
Taxonomy: Cresson, 1864. Ent. Soc. Phila. Proc. 2: 397, ♀.—Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 343, ♀ ♂.

semilectus Cockerell. Va.
Epeolus semilectus Cockerell, 1907. Entomologist 40: 136. ♂.

tristicolor Viereck. B. C.
Epeolus tristicolor Viereck, 1905. Canad. Ent. 37: 280. ♀.

vernoniae Cockerell. Va.
Epeolus vernoniae Cockerell, 1907. Entomologist 40: 136. ♂.

virginiensis Cockerell. Va.
Epeolus virginiensis Cockerell, 1907. Entomologist 40: 137. ♂.

zonatus Smith. Fla.
Epeolus zonatus Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 257. ♂ ♀.
Taxonomy: Cresson, 1864. Ent. Soc. Phila. Proc. 2: 397, ♀ ♂.

Genus TRIEPEOLUS Robertson

Triepeolus Robertson, 1901. Canad. Ent. 33: 231.
Type: *Epeolus concavus* Cresson. Orig. desig.
Triepeolus subg. *Synepeolus* Cockerell, 1921. Amer. Mus. Novitates 23: 6.
Type: *Triepeolus* (*Synepeolus*) *insolitus* Cockerell. Monob.
Taxonomy: Cockerell, 1928. Colo. Univ., Studies 16: 107 (key).

agaricifer Cockerell. N. Mex.
Triepeolus agaricifer Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 60. ♂.

alpestris Cockerell. Colo.
Triepeolus alpestris Cockerell, 1921. Amer. Mus. Novitates 21: 13. ♀.

amandus Cockerell. Colo.
Triepeolus amandus Cockerell, 1921. Amer. Mus. Novitates 23: 10. ♂.

ancoratus Cockerell. Calif.
Triepeolus ancoratus Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 63. ♀.

argyreus (Cockerell). Wash.
Epeolus argyreus Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 60. ♂.

balteatus Cockerell. Colo.
Triepeolus balteatus Cockerell, 1921. Amer. Mus. Novitates 23: 5. ♂.

bardus (Cresson). Tex. to Minn.
Epeolus bardus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 84. ♀.
Taxonomy: Brues, 1903. Ent. News 14: 80 (key).—Cockerell, 1935. Amer. Mus. Novitates 766: 7, ♀ ♂.

bihamatus (Cockerell). Wash.
Epeolus bihamatus Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 61. ♂.

blaisdelli Cockerell and Sandhouse. Calif.
Triepeolus blaisdelli Cockerell and Sandhouse, 1924. Calif. Acad. Sci. Proc (4) 13: 310. ♂.

brittaini Cockerell. N. S.
Triepeolus brittaini Cockerell, 1931. Canad. Ent. 63: 297. ♂.

brunnescens Cockerell and Sandhouse. Calif.
Triepeolus brunnescens Cockerell and Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 313. ♂.

brunneus Cockerell. Colo.
Triepeolus brunneus Cockerell, 1921. Amer. Mus. Novitates 23: 7. ♀.

californicus (Cresson). Calif.
Epeolus californicus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 86. ♀.

callopus Cockerell. Calif.
Triepeolus callopus Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 15: 202. ♀.

concavus (Cresson). Ga. to Calif., Colo., Ill. Host: *Melissodes obliqua* (Say).
Epeolus concavus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 85. ♀.
Taxonomy: Brues, 1903. Ent. News 14: 81, fig. ♀ ♂.—Robertson, 1903. Canad. Ent. 33: 284, 285, ♀ ♂ (key).—Linsley and Michener, 1939. Amer. Ent. Soc. Trans. 65: pls. 15, 18.
Biology: Custer, 1928. Canad. Ent. 60: 28.—Custer, 1929. Psyche 36: 293.

concolor (Robertson). Ill., Colo.
Epeolus lunatus var. *concolor* Robertson, 1898. Acad. Sci. St. Louis, Trans. 8: 52.
Taxonomy: Robertson, 1903. Canad. Ent. 35: 285, 286, ♀ ♂ (key).—Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 13: 35, ♂ (key).—Cockerell, 1921. Amer. Mus. Novitates 23: 14 (key).

coquilletti Cockerell. Calif., Miss.
Tripeolus coquilletti Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 106. ♀.

cressonii cressonii (Robertson). Ill. and Wis. to N. J.
Epeolus cressonii Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 344. ♂ ♀.

cressonii fraserae Cockerell. N. Mex.
Triepeolus cressoni var. *fraserae* Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 13: 39. ♂.

custeri Cockerell. Colo.
Triepeolus custeri Cockerell, 1926. Ann. Mag. Nat. Hist. (9) 17: 306. ♂.

cyclurus Cockerell. Colo.
Triepeolus cyclurus Cockerell, 1923. Ent. News 34: 49. ♀.

dacotensis (Stevens). N. Dak., Utah.
Epeolus dacotensis Stevens, 1919. Canad. Ent. 51: 210. ♀ ♂.

denverensis Cockerell. Colo.
Triepeolus denverensis Cockerell, 1910. Entomologist, p. 91. ♂.

dichropus Cockerell. Colo.
Triepeolus dichropus Cockerell, 1921. Amer. Mus. Novitates 23: 11. ♂.

diversipes Cockerell. Calif.
Triepeolus diversipes Cockerell, 1924. Calif. Acad. Sci. Proc. (4) 13: 314. ♂.

donatus (Smith). East. Canada; northeast. United States.
Epeolus donatus Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 256. ♀ ♂.
Taxonomy: Robertson, 1903. Canad. Ent. 35: 285, 286, ♀ ♂ (key).

eldoradensis (Cockerell). Colo.
Epeolus eldoradensis Cockerell, 1910. Psyche 17: 245. ♂.

eldredi Cockerell. Wash.
Triepeolus eldredi Cockerell, 1907. Canad. Ent. 39: 52. ♂.

fortis Cockerell. Colo.
Triepeolus fortis Cockerell, 1921. Amer. Mus. Novitates 23: 3. ♀ ♂.

fraseri Cockerell. N. Mex.
Triepeolus fraseri Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 13: 39. ♂.
Taxonomy: Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 62, ♂ (key).

grindeliae Cockerell. Colo.
Triepeolus grindeliae Cockerell, 1907. Canad. Ent. 39: 51. ♀.

haematurus Cockerell and Sandhouse. Utah.
Triepeolus haematurus Cockerell and Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 311. ♀.

helianthi arizonensis Cockerell. Ariz.
Triepeolus helianthi var. *arizonensis* Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 13: 39. ♂.

helianthi grandior Cockerell. Colo., N. Mex.
Triepeolus helianthi grandior Cockerell, 1919. N. Y. Ent. Soc. Jour. 27: 300. ♀ ♂.

helianthi helianthi (Robertson). Wis., Ill. to Colo. Host: *Melissodes trinodis* Robertson.
Epeolus helianthi Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 344.
Taxonomy: Cockerell, 1921. Amer. Mus. Novitates 23: 3, 15 (key).
Biology: Graenicher, 1905. Wis. Nat. Hist. Soc. Bul. 3: 164–166, figs.

helianthi pacificus Cockerell. Colo.
Triepeolus helianthi pacificus Cockerell, 1919. N. Y. Ent. Soc. Jour. 27: 300. ♂.
Taxonomy: Cockerell, 1921. Amer. Mus. Novitates 23: 4, 15 (key).

heterurus (Cockerell and Sandhouse). Calif., Oreg.
Epeolus heterurus Cockerell and Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 316. ♀ ♂.

hopkinsi Cockerell. Ariz.
Triepeolus hopkinsi Cockerell, 1905. Biol. Soc. Wash. Proc. 18: 184. ♂.

insolitus Cockerell. Colo.
Triepeolus (*Synepeolus*) *insolitus* Cockerell, 1921. Amer. Mus. Novitates 23: 6. ♂.

inyoensis Cockerell and Sandhouse. Calif.
Triepeolus inyoensis Cockerell and Sandhouse, 1924. Calif. Acad. Sci. Proc. 4 (13): 309. ♂.

isocomae Cockerell. N. Mex.
Triepeolus isocomae Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 13: 38. ♂.

laticaudus Cockerell. Colo.
Triepeolus laticaudus Cockerell, 1921. Amer. Mus. Novitates 23: 12. ♀.

lestes Cockerell. Colo., Calif.
Triepeolus lestes Cockerell, 1921. Amer. Mus. Novitates 23: 11. ♀.
Taxonomy: Cockerell, 1929. Pan-Pacific Ent. 5: 102. ♀ ♂.

lineatulus Cockerell and Sandhouse. Calif.
Triepeolus lineatulus Cockerell and Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 306. ♀ ♂.

loganensis Cockerell. Colo.
Triepeolus loganensis Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 624. ♂.

lunatus (Say). Atlantic Coast to Wis., Tex., N. Mex., Colo.
Epeolus lunatus Say, 1824. *In* Keating, Narr. Long's 2nd Exped., v. 2, p. 354. ♀ ♂.
Taxonomy: Brues, 1903. Ent. News 14: 79, 80, ♀ ♂ (key).—Robertson, 1903. Canad. Ent. 35: 284, 286, ♀ ♂ (key).—Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 62, ♂ (key).—Cockerell, 1921. Amer. Mus. Novitates 23: 2, 14 (key).

lusor Cockerell. Colo.
Triepeolus lusor Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 625. ♂.

maculiventris Cockerell. Colo.
Triepeolus maculiventris Cockerell, 1921. Amer. Mus. Novitates 23: 11. ♀.

martini (Cockerell). N. Mex., Colo.
Epeolus remigatus var. *martini* Cockerell, 1900. Canad. Ent. 32: 361. ♂ ♀.
Taxonomy: Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 14: 24.

mensae Cockerell. Oreg.
Triepeolus mensae Cockerell, 1924. Calif. Acad. Sci. Proc. (4) 13: 313. ♂.

mesillae Cockerell. N. Mex.
Triepeolus mesillae Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 13: 36. ♀.

micropygius Robertson. Ill.
Triepeolus micropygius Robertson, 1903. Canad. Ent. 35: 286. ♀.

mojavensis Linsley. Calif. Host: *Anthophora linsleyi* Timberlake.
Triepeolus mojavensis Linsley, 1939. Pan-Pacific Ent. 15: 2. ♀.
Biology: Linsley and MacSwain, 1942. Amer. Midland Nat. 27: 409.

nevadensis (Cresson). Nev., N. Mex.
Epeolus nevadensis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 86. ♀.
Taxonomy: Robertson, 1903. Canad. Ent. 35: 285, 286, ♀ ♂ (key).

nigriceps (Smith). Calif., Tex.
Epeolus nigriceps Smith, 1879. Descr. New Species Hym. Brit. Mus., p. 103. ♀.

norae Cockerell. N. Mex.
Triepeolus norae Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 59. ♀.

obliteratus Graenicher. Wis.
Triepeolus obliteratus Graenicher, 1911. Pub. Mus. City Milwaukee, Bul. 1: 242. ♀ ♂.

occidentalis (Cresson). Pacific Coast to Kans., N. Mex., Tex. Host: ?*Melissodes mizeae* Cockerell.
Epeolus occidentalis Cresson, 1878. Amer. Ent. Soc. Trans. 7: 87. ♂ ♀.
Taxonomy: Brues, 1903. Ent. News 14: 80 (key).—Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 13: 34, 35, ♀ ♂ (key).
Biology: Hicks, 1926. Colo. Univ., Studies 15: 225.

paenepectoralis Viereck. B. C. to Wash., Colo.
Triepeolus paenepectoralis Viereck, 1905. Canad. Ent. 37: 278. ♀.
Taxonomy: Cockerell, 1921. Amer. Mus. Novitates 23: 15 (key).

pallidiventris Cockerell and Sandhouse. Utah.
Triepeolus pallidiventris Cockerell and Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 308. ♂.

pectoralis (Robertson). Maine to Colo., Utah.
Epeolus pectoralis Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 345. ♀.
Taxonomy: Robertson, 1903. Canad. Ent. 35: 285, ♀. (key).—Lovell and Cockerell, 1905. Psyche 12: 42, ♂.

penicilliferus (Brues). Tex.
Epeolus penicilliferus Brues, 1903. Ent. News 14: 81. ♀ ♂.
Taxonomy: Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 13: 34, ♀.

perelegans Cockerell. Ariz.
Triepeolus perelegans Cockerell, 1921. Amer. Mus. Novitates 23: 8. ♂.

permixtus (Cockerell). Calif.
Epeolus permixtus Cockerell, 1923. Calif. Acad. Sci. Proc. (4) 12: 94. ♂ ♀.

pimarum Cockerell. Ariz.
Triepeolus pimarum Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 13: 36. ♀.

pomonalis Cockerell. Calif.
Triepeolus pomonalis Cockerell, 1916. Canad. Ent. 48: 392. ♂.

4-fasciatus (Say). Ark., Tex.
Epeolus 4-fasciatus Say, 1823. West. Quart. Rptr. 2: 81.
Taxonomy: Brues, 1903. Ent. News 14: 80 (key).

rectangularis Cockerell. Colo., Utah, Oreg., Calif.
Triepeolus rectangularis Cockerell, 1921. Amer. Mus. Novitates 23: 9. ♂.

remigatus (Fabricius). Pa., Va. and S. C. to Tex., N. Mex., Colo., Calif.
Melecta remigata Fabricius, 1804. Systema Piezatorum, p. 387.
Taxonomy: Cresson, 1864. Ent. Soc. Phila. Proc. 2: 293, ♀ ♂.—Brues, 1903. Ent. News 14: 79 (key).—Robertson, 1903. Canad. Ent. 35: 285, 286, ♀ ♂ (key).

rhododontus Cockerell. Colo.
Triepeolus rhododontus Cockerell, 1921. Amer. Mus. Novitates 23: 5. ♂.

robustus (Cresson). N. Mex.
Epeolus robustus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 85. ♀.

rohweri Cockerell. Colo.
Triepeolus rohweri Cockerell, 1911. Ann. Mag. Nat. Hist. (8) 8: 668. ♂.

rufithorax Graenicher. Fla.
Triepeolus rufithorax Graenicher, 1928. Ent. News 39: 279. ♀ ♂.

sandhousei Cockerell. Colo.
Triepeolus sandhousei Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 624. ♂.

sarothrinus (Cockerell). Calif.
Epeolus sarothrinus Cockerell, 1929. Pan-Pacific Ent. 5: 103. ♀ ♂.
Epeolus sarothrinus var. *confluens* Cockerell, 1929. Pan-Pacific Ent. 5: 104. ♂.

saturninus Cockerell and Sandhouse. Calif.
Triepeolus saturninus Cockerell and Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 312. ♂.

schwarzi schwarzi Cockerell. Colo.
Triepeolus schwarzi Cockerell, 1921. Amer. Mus. Novitates 23: 4. ♂.

schwarzi subcalens Cockerell and Sandhouse. Calif.
Triepeolus schwarzi subcalens Cockerell and Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 309. ♂ ♀.

segregatus (Cockerell). N. Mex.
Epeolus occidentalis var. *segregatus* Cockerell, 1900. Canad. Ent. 32: 361. ♂ (♀ misdet.?).
Taxonomy: Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 62, ♀ ♂ (key).

sequior Cockerell. Colo.
Triepeolus sequior Cockerell, 1921. Amer. Mus. Novitates 23: 8. ♂.

simplex Robertson. Ill., Wis.
Triepeolus simplex Robertson, 1903. Canad. Ent. 35: 285, 286, ♀ ♂.

stricklandi Cockerell. Alta.
Triepeolus stricklandi Cockerell, 1937. Canad. Ent. 69: 86. ♀.

subalpinus Cockerell. Colo.
Triepeolus subalpinus Cockerell, 1910. Psyche 17: 245. ♀.

sublunatus Cockerell. N. Mex.
Triepeolus sublunatus Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 62. ♂.

subnitens Cockerell and Timberlake. Calif.
Triepeolus subnitens Cockerell and Timberlake, 1929. Pan-Pacific Ent. 5: 167. ♂ ♀.

superbus (Provancher). Calif.
Epeolus superbus Provancher, 1895. Nat. Canad. 22: 190.

tanneri Cockerell. Utah.
Triepeolus tanneri Cockerell, 1928. Psyche 35: 232. ♂.

texanus nigripes Cockerell. N. Mex.
Triepeolus texanus var. *nigripes* Cockerell, 1898. N. Mex. Univ. Bul. 1: 61. ♂.

texanus texanus (Cresson). Tex.
Epeolus texanus Cresson, 1878. Amer. Ent. Soc. Trans. 7: 87. ♂.
Taxonomy: Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 13: 34, ♀ (key).

timberlakei Cockerell. Calif.
Triepeolus timberlakei Cockerell, 1929. Pan-Pacific Ent. 5: 101. ♀ ♂.
Triepeolus timberlakei var. *heterodoxus* Cockerell, 1929. Pan-Pacific Ent. 5: 101. ♀.

townsendi Cockerell. N. Mex.
Triepeolus townsendi Cockerell, 1907. Ann. Mag. Nat. Hist. (7) 20: 63. ♂ ♀.

trichopygus Cockerell and Timberlake. Calif.
Triepeolus trichopygus Cockerell and Timberlake, 1929. Pan-Pacific Ent. 5: 169. ♂ ♀.

trilobatus Cockerell. Colo.
Triepeolus trilobatus Cockerell, 1921. Amer. Mus. Novitates 23: 7. ♂.

utahensis (Cockerell). Utah.
Epeolus utahensis Cockerell, 1921. Amer. Mus. Novitates 23: 15. ♂.

vandykei Cockerell and Sandhouse. Calif.
Triepeolus vandykei Cockerell and Sandhouse, 1924. Calif. Acad. Sci. Proc. (4) 13: 307. ♀.

verbesinae (Cockerell). N. Mex. to Calif. and Lower Calif.
Epeolus verbesinae Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 156. ♂ ♀.
Taxonomy: Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 11: 60, ♂ (key).

wyomingensis Cockerell. Wyo. to Utah.
Triepeolus wyomingensis Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 15: 201. ♂.

Tribe EPEOLOIDINI[84]

Genus EPEOLOIDES Giraud

Epeoloides Giraud, 1863. Zool.-Bot. Gesell, Wien., Verh. 13: 45.
Type: (*Epeoloides ambiguus* Giraud) = *Apis coecutiens* Fabricius. Monob.
Viereckella Swenk, 1907. Ent. News 18: 298.
Type: *Viereckella obscura* Swenk. Orig. desig.

obscura (Swenk). Nebr.
Viereckella obscura Swenk, 1907. Ent. News 18: 299. ♀.

pilosula (Cresson). Northeast. United States to Wis., N. Dak.
Nomada pilosula Cresson, 1878. Amer. Ent. Soc. Trans. 7: 77. ♂.
Viereckella ceanothina Cockerell, 1907. Ent. News 18: 300. ♀.
Epeoloides nearcticus Ducke, 1909. Rev. Ent. Caen 27: 39. ♀.
Taxonomy: Crawford, 1917. Ent. Soc. Wash. Proc. 19: 167.

Tribe EMPHORINI[85]

Genus EMPHOR Patton

Emphor Patton, 1879. U. S. Geol. Geog. Survey Bul. 5: 476.
Type: *Melissodes bombiformis* Cresson. Monob. and orig. desig.

bombiformis bombiformis (Cresson). Va. to Ga., west to Ill., Kans., La., Tex. On flowers of *Hibiscus* and *Althaea*.
Melissodes bombiformis Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 219. ♀ ♂.
Biology: Robertson, 1890. Canad. Ent. 22: 217.—Knab, 1911. Ent. Soc. Wash. Proc. 13: 170.—Grossbeck, 1911. N. Y. Ent. Soc. Jour. 19: 238.—Knab, 1911. Ent. Soc. Wash. Proc. 13: 170.—Robertson, 1914. Ent. News 25: 70.—Robertson, 1918. Canad. Ent. 50: 320.—Robertson, 1925. Psyche 32: 278.—Davis, 1926. Brooklyn Ent. Soc. Bul. 21: 127.—Rau, 1930. Brooklyn Ent. Soc. Bul. 25: 28.—Rau, 1934. Acad. Sci. St. Louis, Trans. 28: 222.—Michener, 1947. Amer. Midland Nat. 38: 451.

bombiformis fuscojubatus (Cockerell), n. comb. N. J., Md., D. C.
Emphor fuscojubatus Cockerell, 1913. Psyche 20: 107. ♀.
Biology: Nichols, 1913. Psyche 20: 107.

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[84] By E. Gorton Linsley, University of California.
[85] By Charles D. Michener, University of Kansas.

Genus DIADASIA Patton

Diadasia Patton, 1879. U. S. Geol. Geog. Survey Bul. 5: 475.
Type: ***Melissodes enavata*** Cresson. Orig. desig.
Dasiapis Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 450.
Type: ***Dasiapis ochracea*** Cockerell. Monob.
Coquillettapis Viereck, 1909. Ent. Soc. Wash. Proc. 11: 47.
Type: (***Coquillettapis melittoides*** Viereck) = ***Melissodes nigrifrons*** Cresson. Monob. and orig. desig.

Revisions: Cockerell, 1905. Amer. Nat. 39: 741–743.—Timberlake, 1941. Brooklyn Ent. Soc. Bul. 36: 2–11.

afflicta afflicta (Cresson). N. Mex., Tex.
Melissodes afflicta Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 217. ♀ ♂.

afflicta perafflicta Cockerell. Kans.
Diadasia afflicta perafflicta Cockerell, 1905. Amer. Nat. 39: 744. ♂ ♀.

afflictula Cockerell. N. Mex.
Diadasia afflictula Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 366. ♂.

albovestita Provancher. Calif.
Diadasia albovestita Provancher, 1896. Nat. Canad. 23: 27. ♀.
Didasia (!) alboresta (!) Fowler, 1899. Canad. Ent. 31: 285.

angusticeps Timberlake. Calif.
Diadasia angusticeps Timberlake, 1939. Brooklyn Ent. Soc. Bul. 34: 15. ♂ ♀.

australis australis (Cresson). Colo., N. Mex., Tex. On flowers of *Opuntia*.
Melissodes australis Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 214. ♀ ♂.

australis californica Timberlake. Calif. On flowers of *Opuntia*. Other subspecies are known from Mexico.
Diadasia australis californica Timberlake, 1940. Brooklyn Ent. Soc. Bul. 35: 28. ♀ ♂.

bituberculata (Cresson). Calif.
Melissodes bituberculata Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 218. ♂.
Didasia (!) cinerea Fowler, 1899. Canad. Ent. 31: 285. ♂.

consociata Timberlake. Calif., Nev. On flowers of *Sphaeralcea*.
Diadasia consociata Timberlake, 1939. Brooklyn Ent. Soc. Bul. 34: 11. ♂ ♀.

diminuta (Cresson). Kans., Colo., N. Mex., Tex., Ariz., Calif., Mexico. On flowers of *Sphaeralcea*.
Melissodes diminuta Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 215. ♂.
Melissodes apacha Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 217. ♀.

enavata (Cresson). Kans., Colo., N. Mex., Tex., Utah, Ariz., Calif. On flowers of *Helianthus* and other composites.
Melissodes enavata Cresson, 1872. Amer. Ent. Soc. Trans. 4: 280. ♀.
Melissodes ? ursina Cresson, 1872. Amer. Ent. Soc. Trans. 4: 281. ♂.
Melissodes densa Cresson, 1872. Amer. Ent. Soc. Trans. 4: 282. ♂.
Eucera arctos Dalla Torre, 1895. Cat. Hym., v. 10, p. 225. Proposed to replace *ursina*, preoccupied in *Eucera* in Dalla Torre's sense.
?***Diadasia 3-cincta*** Provancher, 1896. Nat. Canad. 23: 28. ♀.
?***Diadasia tricincta*** Fowler, 1899. Canad. Ent. 31: 286. Emend.

friesei Cockerell. ?Calif.
Diadasia friesei Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 192. ♀.

laticauda Cockerell. Calif. On flowers of *Malvastrum*.
Diadasia laticauda Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 103. ♀.
Diadasia crassicauda Cockerell, 1915. Pomona Jour. Ent. Zool. 7: 231. ♂.

lutzi deserticola Timberlake. Calif. (Chocolate Mts.). On flowers of *Sphaeralcea*.
Diadasia lutzi deserticola Timberlake, 1940. Brooklyn Ent. Soc. Bul. 35: 23. ♂ ♀.

lutzi difficilis Timberlake. Ariz., Calif., Lower Calif. desert. On flowers of *Sphaeralcea*.
Diadasia lutzi difficilis Timberlake, 1940. Brooklyn Ent. Soc. Bul. 35: 22. ♂ ♀.

lutzi lutzi Cockerell. Wyo.
Diadasia lutzi Cockerell, 1924. Amer. Mus. Novitates 113: 2. ♂ ♀.

martialis Timberlake. South. Calif. desert. On flowers of *Sphaeralcea.*
Diadasia martialis Timberlake, 1940. Brooklyn Ent. Soc. Bul. 35: 25. ♂ ♀.

megamorpha Cockerell. N. Mex.
Diadasia megamorpha Cockerell, 1898. Amer. Ent. Soc. Trans. 25: 192. ♂ ♀.

nigrifrons (Cresson). Idaho, Calif. On flowers of *Sidalcea.*
Melissodes nigrifrons Cressons, 1878. Acad. Nat. Sci. Phila. Proc. 30: 195. ♀.
Didasia (?) *nerea* Fowler, 1899. Canad. Ent. 31: 285. ♀ ♂.
Coquillettapis melittoides Viereck, 1909. Ent. Soc. Wash. Proc. 11: 48. ♀.
Diadasia nigrifrons [var.] *epileuca* Cockerell, 1925. Calif. Acad. Sci. Proc. (4) 14: 203. ♀.

nitidifrons Cockerell. Wash., Calif., Utah. On flowers of *Sphaeralcea.*
Diadasia nitidifrons Cockerell, 1905. South. Calif. Acad. Sci. Proc. 4: 104. ♂.
Diadasia skinneri Cockerell, 1909. Ent. News 20: 206. ♂.
Taxonomy: Michener, 1947. Ann. Mag. Nat. Hist. (10) 19: 403, ♀.

ochracea (Cockerell). Wash., Calif., Ariz., Colo., N. Mex., Tex. On flowers of *Sphaeralcea.*
Dasiapis ochracea Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 450. ♂.
?*Dasiapis olivacea* Cockerell, 1903. Psyche 10: 77. ?Misidentification; ?not *olivacea* Cresson.
Diadasia blaisdelli Cockerell, 1924. Pan-Pacific Ent. 1: 54. ♀.

opuntiae Cockerell. Coastal south. Calif. On flowers of *Opuntia.*
Diadasia rinconis subsp. *opuntiae* Cockerell, 1901. Canad. Ent. 33: 286. ♀.

palmarum Timberlake. South. Calif. desert. On flowers of *Sphaeralcea.*
Diadasia palmarum Timberlake, 1940. Brooklyn Ent. Soc. Bul. 35: 27. ♂ ♀.

piercei Cockerell. Tex.
Diadasia piercei Cockerell, 1911. Canad. Ent. 43: 132. ♂ ♀.

rinconis mimetica Cockerell. Calif. (isl. off coast). Another subspecies (*petrina*) is known from Lower California.
Diadasia australis mimetica Cockerell, 1924. Pan-Pacific Ent. 1: 53. ♀.

rinconis rinconis Cockerell. Tex., N. Mex., Ariz., Calif.
Diadasia rinconis Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 154. ♀.
Diadasia rinconi (?) Snow, 1906. Kans. Acad. Sci. Trans. 20: 137.

sphaeralcearum affinis Timberlake. Ariz., Calif.
Diadasia sphaeralcearum affinis Timberlake, 1939. Brooklyn Ent. Soc. Bul. 34: 14. ♂ ♀.

sphaeralcearum sphaeralcearum Cockerell. N. Mex. On flowers of *Sphaeralcea.*
Diadasia sphaeralcareum Cockerell, 1905. Amer. Nat. 39: 744 ♂.
Taxonomy: Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 403, ♀.

tuberculifrons Timberlake. Ariz., Calif. On flowers of *Sphaeralcea.*
Diadasia tuberculifrons Timberlake, 1939. Brooklyn Ent. Soc. Bul. 34: 13. ♂ ♀.

vallicola Timberlake. Ariz., Calif., Lower Calif., desert. On flowers of *Sphaeralcea.*
Diadasia vallicola Timberlake, 1940. Brooklyn Ent. Soc. Bul. 35: 24. ♂.

Genus MELITOMA Lepeletier and Serville

Melitoma Lepeletier and Serville, 1828. Encycl. Méth., Hist. Nat. Ins., v. 10, p. 529.
Type: *Melitoma euglossoides* Lepeletier and Serville. Monob.
Entechnia Patton, 1879. U. S. Geol. and Geog. Survey Bul. 5: 476.
Type: *Anthophora taurea* Say. Monob. and orig. desig.
Meliphila Schrottky, 1902. Buenos Aires Mus. Nac. de Hist. Nat. An. 7: 310.
Type: (*Meliphila ipomoeae* Schrottky) = *Melitoma euglossoides* Lepeletier and Serville. Monob. and orig. desig.

All species visit flowers of *Ipomea.*

fulvifrons marginella (Cresson). Tex.; Mexico. *M. fulvifrons fulvifrons* ranges southward to Argentina.
Melissodes ? ***marginella*** Cresson, 1872. Amer. Ent. Soc. Trans. 4: 282. ♂ ♀.

grisella (Cockerell and Porter). N. Dak., Nebr., Kans., Colo., N. Mex.
Entechnia grisella Cockerell and Porter, 1899. Ann. Mag. Nat. Hist. (7) 4: 409. ♂.
Entechnia dakotensis Cockerell and Porter, 1899. Ann. Mag. Nat. Hist. (7) 4: 409. ♀.
Biology: Hungerford and Williams, 1912. Ent. News 23: 258.—Cockerell, 1934. Amer. Mus. Novitates 697: 10.

taurea (Say). N. J. to Ga., west to Ill., Kans., and Mo. On flowers of *Ipomoea*.
Anthophora taurea Say, 1837. Boston Jour. Nat. Hist. 1: 410. ♂ ♀.
Biology: Walsh, 1868. Amer. Ent. 1: 10.—Ashmead, 1894. Psyche 7: 25.—Robertson, 1914. Ent. News 25: 68.—Rau, 1926. Acad. Sci. St. Louis, Trans. 25: 175.—Rau, 1929. Psyche 36: 155.—Rau, 1934. Acad. Sci. St. Louis, Trans. 28: 222.

Tribe EUCERINI[86]

Genus PEPONAPIS Robertson

Peponapis Robertson, 1902. Canad. Ent. 34: 324.
Type: ***Macrocera prinosa*** Say. Orig. desig.

angelica (Cockerell). Calif.
Xenoglossa angelica Cockerell, 1902. Ent. News 13: 103. ♂ ♀.

pruinosa limitaris (Cockerell). South. Tex.
Xenoglossa pruinosa limitaris Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 18: 73. ♂.

pruinosa pruinosa (Say). Mass. to N. C., west to Ohio and Ill., south to Tex; Utah, Ariz. On flowers of *Cucurbita*.
Macrocera pruinosa Say, 1837. Boston Jour. Nat. Hist. 1: 405. ♂ ♀.
Macrocera Philadelphica Lepeletier, 1841. Hist. Nat. Ins., Hym., v. 2, p. 110. ♂.
Xenoglossa spriuna Howard, 1901. Insect Book, Pl. VII, fig. 2. ♂. Possibly error for *pruinosa*.
Xenoglossa pruinosa var. ***lutzi*** Cockerell, 1923. Canad. Ent. 55: 205. ♀ ♂.
Taxonomy: Patton, 1879. U. S. Geol. and Geog. Survey Bul. 5: 473.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24 (7): 34.

utahensis (Cockerell). Utah, Ariz., north. Mexico.
Xenoglossa utahensis Cockerell, 1905. Biol. Soc. Wash. Proc. 18: 182. ♀.

Genus XENOGLOSSA Smith

Xenoglossa Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 315.
Type: ***Xenoglossa fulva*** Smith. Monob.

fulva Smith. Ariz.; Mexico. (U. S. records doubtful.)
Xenoglossa fulva Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 315. ♂ ♀.
Anthophora holopyrrha Dours, 1869. Soc. Linn. Nord France Mem. 2: 89. ♀ ♂.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 328.

patricia Cockerell. Tex., N. Mex., Ariz., Calif.
Xenoglossa patricia Cockerell, 1896. Canad. Ent. 28: 191. ♂ ♀.
Xenoglossa patricia subsp. ***angustior*** Cockerell, 1899. Entomologist 33: 64. ♂. N. syn. (Timberlake).

strenua strenua (Cresson). N. C., Ga., Wis., Ill., Iowa, Miss., Kans., Colo., N. Mex., Tex., Calif. On flowers of *Cucurbita*.
Melissodes strenua Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 213. ♀ ♂.
Xenoglossa cucurbitarum Cockerell, 1896. Canad. Ent. 28: 192. ♂ ♀.
Xenoglossa strenua var. ***Kansensis*** Cockerell, 1905. Psyche 12: 104. ♂.

[86] By Charles D. Michener, University of Kansas.

Genus CEMOLOBUS Robertson

Cemolobus Robertson, 1902. Canad. Ent. 34: 324.
Type: *Xenoglossa ipomoeae* Robertson. Monob. and orig. desig.

ipomoeae (Robertson). Ill., Pa., N. C., Ga. On flowers of *Ipomoea.*
Xenoglossa ipomoeae Robertson, 1891. Amer. Ent. Soc. Trans. 18: 65. ♀ ♂.

Genus ANTHEDONIA Michener

Anthedon Robertson, 1900. Acad. Sci. St. Louis, Trans. 10: 53. Preocc.
Type: *Melissodes compta* Cresson. Monob.
Anthedonia Michener, 1942. N. Y. Ent. Soc. Jour. 50: 282. N. name.
Abda Sandhouse, 1943. U. S. Natl. Mus. Proc. 92: 521. N. name. Unnecessarily proposed.

compta (Cresson). N. J., N. C., Ga., Ill., Tex., Colo. On flowers of *Oenothera biennis.*
Melissodes compta Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 199. ♀ ♂.
Biology: Robertson, 1914. Ent. News 25: 72.

nevadensis (Cresson), n. comb. Nev., ?N. Mex.
Melissodes nevadensis Cresson, 1874. Amer. Ent. Soc. Trans. 5: 102. ♂.

Genus MARTINAPIS Cockerell

Melissodes subg. *Martinella* Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 450. Preocc.
Type: *Melissodes luteicornis* Cockerell. Monob.
Martinapis Cockerell, 1929. Entomologist 62: 19. N. name.

luteicornis (Cockerell). West Tex., N. Mex., Ariz., south. Calif.; north Mexico, deserts.
Melissodes luteicornis Cockerell, 1896. Ann. Mag. Nat. Hist. (6) 18: 293. ♂.

Genus FLORILEGUS Robertson

Florilegus Robertson, 1900. Acad. Sci. St. Louis, Trans. 10: 53.
Type: *Melissodes condigna* Cresson. Monob.

condignus (Cresson). N. C., Ill., Kans., Colo., Tex.
Melissodes condigna Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 207. ♀
Melissodes palustris Robertson, 1892. Amer. Nat. 26: 273. ♂.

Genus MELISSODES Latreille

Melissodes Latreille, 1829. *In* Cuvier, Règne Animal, ed. 2, v. 5, p. 354.
Type: *Melissodes fonscolombei* Romand. First included species, 1841.
Melissoda Drapiez. 1841. Dict. Classique Sci. Nat., v. 4, p. 241.
Emend. of *Melissodes.* Preocc.
Epimelissodes Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 63.
Type: *Melissodes atripes* Cresson. Monob. and orig. desig.
Revisions: Robertson, 1895. Amer. Ent. Soc. Trans. 31: 367–371 (Illinois species).—Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 15: 521–522 (large species).—Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 74–92.

agilis Cresson. Ont. and Maine to N. C. and Miss., west to Utah, Ariz., Calif., south to Mexico. On flowers of Astereae; Heliantheae.
Melissodes agilis Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 204. ♂.
Melissodes aurigenia Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 212. ♀ ♂.
Melissodes agilis var. *subagilis* Cockerell, 1905. Entomologist 38: 145. ♂.
Melissodes agilis var. *parksi* Cockerell, 1935. Amer. Mus. Novitates 766: 5. ♂.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24 (7): 34.

alopex Cockerell. Utah.
Melissodes alopex Cockerell, 1928. Psyche 35: 233. ♂.

americana (Lepeletier). Carolina, Ill.
Macrocera americana Lepeletier, 1841. Hist. Nat. Ins. Hym., v. 2, p. 92. ♂.

apicata Lovell and Cockerell. Maine.
Melissodes apicata Lovell and Cockerell, 1906. Psyche 13: 111. ♀.

asteris Robertson. Ill., Miss. On flowers of Astereae.
Melissodes asteris Robertson, 1914. Ent. News 25: 373. ♀.

atraticornis Cockerell. Colo.
Melissodes atraticornis Cockerell, 1934. Amer. Mus. Novitates 697: 9. ♂.

atrifera sandiarum Cockerell. N. Mex. Typical *M. atrifera* is from Mexico.
Melissodes atrifera sandiarum Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 257. ♂.

atripes Cresson. N. J., N. C., Ga., Ala., Fla., Ill., Kans., Okla., Tex. On flowers of *Cassia*.
Melissodes atripes Cresson, 1872. Amer. Ent. Soc. Trans. 4: 275. ♀.
Melissodes atripes var. *acomanche* Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 109. ♂.
Taxonomy: Robertson, 1898. Acad. Sci. St. Louis, Trans. 8: 54, ♀ ♂.

autumnalis Robertson. N. C., Ill., Miss., Tex. On flowers of Astereae; Heliantheae.
Melissodes autumnalis Robertson, 1905. Amer. Ent. Soc. Trans. 31: 369. ♀ ♂.

baileyi Cockerell. Tex.
Melissodes Baileyi Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 361. ♀.

bidentis Cockerell. Nebr.
Melissodes bidentis Cockerell, 1914. Ann. Mag. Nat. Hist. (8) 14: 362. ♀.

bimaculata bimaculata (Lepeletier). Conn. and Pa. to N. C., west to Wis., Miss., Kans., Colo. Another subspecies is recorded from Mexico.
Macrocera bimaculata Lepeletier, 1825. Encycl. Method. Ins., v. 10, p. 528. ♀.
Macrocera binotata Say, 1837. Boston Jour. Nat. Hist. 1: 404. ♀ ♂.
Macrocera nigra Lepeletier, 1841. Hist. Nat. Ins. Hym., v. 2, p. 112. ♂.
Biology: Ashmead, 1894. Psyche 7: 25.—Banks, 1902. N. Y. Ent. Soc. Jour. 10: 209.—Folsom, 1922. Ent. Soc. Amer. Ann. 15: 183.

bishoppi Cockerell. Tex.
Melissodes bishoppi Cockerell, 1914. Canad. Ent. 46: 414. ♂.

blakei Cockerell. N. Mex.
Melissodes blakei Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 15: 523. ♀.

boltoniae Robertson. Va., N. C., Ill., Nebr.
Melissodes boltoniae Robertson, 1905. Amer. Ent. Soc. Trans. 31: 368. ♀.

brevicornis (Cresson). Nebr., Tex.
Melissodes brevicornis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 281. ♂.
Eucera cressoni Dalla Torre, 1895. Cat. Hym., v. 10, p. 229. Proposed to replace *brevicornis* Cresson, which was preoccupied in Dalla Torre's *Eucera*.
Taxonomy: Crawford, 1903. Canad. Ent. 35: 334, ♀.—Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 367. Assignment to *Xenoglossa* is incorrect according to Timberlake.
Biology: Cockerell, 1915. Ent. News 26: 364.

bruesi Cockerell. Tex.
Melissodes bruesi Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 110. ♀.

caliginosa Cresson. N. J., Md., Va., N. C., Ga., ?Wis.
Melissodes caliginosa Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 192. ♀ ♂.

calloleuca Cockerell. Utah.
Melissodes calloleuca Cockerell, 1924. Pan-Pacific Ent. 1: 55. ♀.

carolinensis (Dalla Torre). N. J., N. C., S. C., Ala., Miss. On flowers of *Hibiscus*.
Tetralonia atrifrons Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 308 (not p. 307). ♀. Preocc.
Eucera carolinensis Dalla Torre, 1895. Cat. Hym., v. 10, p. 228. ♀. N. name.

chrysothamni Cockerell. N. Mex.
Melissodes chrysothamni Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 15: 524. ♀.

cnici Robertson. Maine, Wis., Ill. On flowers of *Cirsium*.
Melissodes cnici Robertson, 1901. Canad. Ent. 33: 230. ♀ ♂.

coloradensis Cresson. N. C., Wis., Ill., Colo. On flowers of Heliantheae; Cynareae.
Melissodes coloradensis Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 200. ♀ ♂.

comanche Cresson. Colo., N. Mex., Tex.
Melissodes comanche Cresson, 1872. Amer. Ent. Soc. Trans. 4: 276. ♀ ♂.

communis communis Cresson. N. J., N. C., Ga., Fla., Ill., N. Mex., Ariz. Another subspecies occurs in northwestern Mexico.
Melissodes communis Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 204. ♀ ♂.

composita Tucker. Colo.
Melissodes lupina composita Tucker, 1909. Kans. Acad. Sci. Trans. 22: 281. ♂.

comptoides Robertson. N. C., Ill., Miss.
Melissodes comptoides Robertson, 1898. Acad. Sci. St. Louis, Trans. 8: 52. ♀ ♂.

confusa Cresson. Sask., Ill., Mo., Kans., Colo., Tex., Ariz., N. Mex.
Melissodes confusa Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 205. ♀ ♂.
Melissodes ruidosensis Cockerell, 1896. Entomologist 29: 305. ♂.

confusiformis confusiformis Cockerell. Colo., Tex.
Melissodes confusiformis Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 366. ♀.

confusiformis incondita Cockerell. Colo.
Melissodes confusiformis incondita Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 230. ♀.

coreopsis Robertson. Ill. On flowers of *Coreopsis*.
Melissodes coreopsis Robertson, 1905. Amer. Ent. Soc. Trans. 31: 368. ♀.

dagosa Cockerell. Wash., Colo., Utah, Oreg., Calif.
Melissodes dagosa Cockerell, 1909. Canad. Ent. 41: 128. ♂.

dentiventris Smith. Conn., N. J., Ill., Va., Ga.
Melissodes dentiventris Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 312. ♂.

desponsa Smith. Que., Ont., N. Y., N. J., Ohio, Wis., Ill., Kans. On flowers of Compositae.
Melissodes desponsa Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 310. ♀.
Melissodes daponsa (!) Bridwell, 1899. Kans. Acad. Sci. Trans. 16: 211.

desponsiformis Cockerell. Oreg.
Melissodes desponsiformis Cockerell, 1905. *In* Viereck, Canad. Ent. 37: 320. ♀.

duplocincta Cockerell. Ariz.
Melissodes duplocincta Cockerell, 1905. Psyche 12: 103. ♂ ♀.

epicharina Cockerell. Ariz.
Melissodes epicharina Cockerell, 1905. Psyche 12: 99. ♀.

festinata Provancher. Ont.
Melissodes festinata Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym, v. 2, p. 300. ♀ ♂.

fimbriata Cresson. N. J., N. C., Miss., Tex., Colo.
Melissodes fimbriata Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 203. ♀ ♂.

fremontii Cockerell. Colo.
Melissodes fremontii Cockerell, 1907. Entomologist 40: 268. ♂.

galvestonensis Cockerell. Tex.
Melissodes galvestonensis Cockerell, 1905. Biol. Soc. Wash. Proc. 18: 181. ♀ ♂.

georgica Cresson. Ga.
Melissodes georgica Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 200. ♂.

gilensis Cockerell. Colo., N. Mex., Ariz., Calif.
Melissodes gilensis Cockerell, 1896. Entomologist 29: 306. ♀ ♂.

glenwoodensis Cockerell. Colo., N. Mex.
Melissodes glenwoodensis Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 15: 522. ♀.
Taxonomy: Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 107.

grandissima Cockerell. Tex.
Melissodes grandissima Cockerell, 1905. Canad. Ent. 37: 334. ♀.
Taxonomy: Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 361, ♂.

grindeliae Cockerell. Colo., N. Mex., Ariz., Calif., ?N. C.
Melissodes grindeliae Cockerell, 1898. Denison Univ. Sci. Labs. Bul. 11: 66. ♂ ♀.
Taxonomy: Cockerell, 1898. N. Mex. Univ. Bul. 1: 66, ♂ ♀.

habilis Cockerell. Colo.
Melissodes habilis Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 229. ♂.
Taxonomy: Cockerell, 1937. Amer. Mus. Novitates 899: 5.

helenae Cockerell. N. Mex.
Melissodes Helenae Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 365. ♀.

helianthelli Cockerell. N. Mex.
Melissodes helianthelli Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 15: 525. ♀.

helianthophila Cockerell. Colo.
Melissodes helianthophila Cockerell, 1914. Ann. Mag. Nat. Hist. (8) 14: 361. ♂.

herricki Cockerell. N. Mex.
Melissodes herricki Cockerell, 1905. Psyche 12: 98. ♂ ♀.

hewetti Cockerell. N. Mex.
Melissodes Hewetti Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 15: 527. ♀.

hexacantha Cockerell. Ariz.
Melissodes hexacantha Cockerell, 1905. Psyche 12: 100. ♂.

hitei Cockerell. Mo., Colo., Tex.
Melissodes martini hitei Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 2: 331. ♀.

hortivagans hortivagans Cockerell. Ill., La., Kans., Colo., Tex.
Melissodes hortivagans Cockerell, 1905. Biol. Soc. Wash. Proc. 18: 180. ♂ ♀.
Melissodes variabilis Robertson, 1905. Amer. Ent. Soc. Trans. 31: 368. ♀ ♂.

hortivagans melanotica Cockerell. Colo.
Melissodes hortivagans melanotica Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 231. ♀.

humilior Cockerell. N. Mex.
Melissodes humilior Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 447, 450. ♀.

hymenoxidis Cockerell. Colo., Utah.
Melissodes hymenoxidis Cockerell, 1906. Amer. Mus. Nat. Hist. Bul. 22: 443. ♀.

illata Lovell and Cockerell. Que., N. B., Maine, Sask., B. C.
Melissodes illata Lovell and Cockerell, 1906. Psyche 13: 110. ♀ ♂.

intermedia Cresson. N. Mex., Tex.
Melissodes intermedia Cresson, 1872. Amer. Ent. Soc. Trans. 4: 278. ♀.

intermediella Cockerell. N. Mex., Ariz., Calif.
Melissodes intermediella Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 102. ♀.

intorta Cresson. Tex.
Melissodes intorta Cresson, 1872. Amer. Ent. Soc. Trans. 4: 278. ♂.

kallstroemiae Cockerell. Colo., N. Mex., Ariz.
Melissodes kallstroemiae Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 16: 216. ♂.
Melissodes kallstroemiae var. *phenacoides* Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 16: 217. ♂.

kelloggi Cockerell. Colo.
Melissodes kelloggi Cockerell, 1919. Ent. News 30: 293. ♂.

lavata Cockerell. Colo.
Melissodes lavata Cockerell, 1924. Pan-Pacific Ent. 1: 56. ♀.
Taxonomy: Cockerell, 1927. Ent. Soc. Amer. Ann. 20: 395. ♂.

loena Cockerell. Tex.
Melissodes loena Cockerell, 1909. Entomologist 42: 148. ♂.

lupina Cresson. Colo., N. Mex., Calif.
Melissodes lupina Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 210. ♂.
Melissodes intermediella var. *catalinensis* Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 102. ♀.

machaerantherae Cockerell. N. Mex., Ariz.
Melissodes machaerantherae Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 14: 21. ♂ ♀.
Melissodes obliqua var. *expurgata* Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 230. ♂. N. syn. (Timberlake).

manipularis Smith. Va., Ga.
Melissodes manipularis Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 312. ♂.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 329.

manni Cockerell. Ariz.
Melissodes manni Cockerell, 1924. Amer. Mus. Novitates 113: 1. ♂.

martini Cockerell. Colo., N. Mex.
Melissodes Martini Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 15: 526. ♀.

masuca Cockerell. Tex.; Mexico.
Melissodes masuca Cockerell, 1909. Entomologist 42: 148. ♂.
Taxonomy: Cockerell, 1917. N. Y. Ent. Soc. Jour. 25: 191, ♀.

megacerata Cockerell. Tex.
Melissodes megacerata Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 362. ♂.

melandri Cockerell. Tex.
Melissodes melandri Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 109. ♀.

melanosoma Cockerell. Tex.
Melissodes melanosoma Cockerell, 1905. Canad. Ent. 37: 266. ♂.

melanura (Cockerell), n. comb. Calif.
Exomalopsis melanurus Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 59. ♀.

menuachus menuachus Cresson. Oreg., Kans., Colo., Nev., Tex., N. Mex., Ariz., Calif., ?N. J.; Mexico.
Melissodes Menuachus Cresson, 1868. Amer. Ent. Soc. Trans. 1: 388. ♂.
Melissodes mennacus (!) Uhler, 1877. U. S. Geol. Geog. Survey Bul. 3: 783.
Melissodes menuacha var. *submenuacha* Cockerell, 1897. Entomologist 30: 137. ♂.

menuachus semilupina Cockerell. Calif.
Melissodes menuacha semilupina Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 29. ♂.

menuachus vernonensis Viereck. B. C.
Melissodes menuacha vernonensis Viereck, 1905. Canad. Ent. 37: 320. ♀ ♂.

metenua ablusa Cockerell. Calif.
Melissodes metenua [race] *ablusa* Cockerell, 1926. Pan-Pacific Ent. 3: 85. ♀.

metenua metenua Cockerell. Oreg.
Melissodes metenua Cockerell, 1924. Pan-Pacific Ent. 1: 56. ♀.

microsticta Cockerell. B. C., Colo.
Melissodes microsticta Cockerell, 1905. *In* Viereck, Canad. Ent. 37: 321. ♂.

mizeae Cockerell. Colo., N. Mex.
Melissodes Mizeae Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 15: 522. ♀.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 225.

montana Cresson. Colo., N. Mex., Ariz., Calif.
Melissodes montana Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 202. ♀ ♂.

moorei Cockerell. Calif.
Melissodes moorei Cockerell, 1926. Ann. Mag. Nat. Hist. (9) 18: 624. ♀.

mysops Cockerell. B. C., Oreg., Colo.
Melissodes mysops Cockerell, 1905. Entomologist 38: 146. ♂ ♀.
Taxonomy: Cockerell, 1907. Entomologist 40: 269.
Biology: Scullen, 1928. Pan-Pacific Ent. 4: 176.

nigripes Smith. N. J., Ill.
Melissodes nigripes Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 311. ♀ (♂misdet.).

nigrosignata Cockerell. N. Mex., Ariz.
Melissodes nigrosignata Cockerell, 1905. Psyche 12: 101. ♀.
Melissodes nigrosignata pallidisignata Cockerell, 1905. Biol. Soc. Wash Proc. 18: 180. ♀.

nivea Robertson. Va., N. C., Wis., Ill., Miss.
Melissodes nivea Robertson, 1895. Amer. Ent. Soc. Trans. 22: 127. ♀.
Taxonomy: Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 354, ♂.

obliqua (Say). N. J. to Ga., west to Tex., Wyo., Utah. Calif. Principally on flowers of *Helianthus*.
Macrocera obliqua Say, 1837. Boston Jour. Nat. Hist. 1: 403. ♂.
Biology: Rau, 1922. Acad. Sci. St. Louis, Trans. 24: 35.—Custer, 1928. Canad. Ent. 60: 28.—Custer, 1929. Psyche 36: 293.

octobris Cockerell. Colo.
Melissodes octobris Cockerell, 1934. Ent. News 45: 30. ♀.

opuntiella Cockerell. Tex.
Melissodes opuntiella Cockerell, 1911. Canad. Ent. 43: 131. ♂ ♀.

pallida Robertson. Ill.
Melissodes pallida Robertson, 1895. Amer. Ent. Soc. Trans. 22: 127. ♀.

paroselae Cockerell. N. Mex.. Ariz.
Melissodes parosetae Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 15: 528. ♂.
Melissodes paroselae Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 16: 477. Justified emendation of *parosetae*.

pecosella Cockerell. Colo., N. Mex.
Melissodes pecosella Cockerell, 1905. Biol. Soc. Wash. Proc. 18: 179. ♀.

pennsylvanica (Lepeletier). N. J., Pa., Ill., ?Tex., ?Colo.
Macrocera pennsylvanica Lepeletier, 1841. Hist. Nat. Ins. Hym., v. 2, p. 97. ♂.

perplexa Cresson. Maine to Fla., west to Wis., Ill., and Tex.
Melissodes perplexa Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 206. ♀ ♂.
Melissodes vernoniana Robertson, 1905. Amer. Ent. Soc. Trans. 31: 368. ♀ ♂.

personatella Cockerell. Calif.
Melissodes personatella Cockerell, 1901. Canad. Ent. 33: 297. ♂.

petalostemonis Robertson.
Melissodes petalostemonis Robertson, 1900. Acad. Sci. St. Louis, Trans. 10: 53. ♀.

petulca Cresson. Ga., Fla., Ill., Miss., Tex.
Melissodes petulca Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 201. ♀.
Melissodes illinoensis Robertson, 1895. Amer. Ent. Soc. Trans. 22: 126. ♀ ♂.

petulciformis Cockerell. Colo., Tex.
Melissodes petulciformis Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 364. ♀.

pimella Cockerell. Ariz.
Melissodes pimella Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 363. ♂.

praelauta Cockerell. Ariz.
Melissodes praelauta Cockerell, 1905. Psyche 12: 102. ♂.

rivalis Cresson. Tex.
Melissodes rivalis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 277. ♂.

robustior Cockerell. Calif.
Melissodes robustior Cockerell, 1915. Ann. Mag. Nat. Hist. (8) 16: 482. ♀ ♂.

rustica (Say). Maine to N. C., west to Wis., Kans., and Tex. On flowers of Astereae; Helenieae.
Macrocera rustica Say, 1937. Boston Jour. Nat. Hist. 1: 406. ♂ ♀.
Melissodes denticulata Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 311. ♂.
Melissodes senilis Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 311. ♀.
Melissodes simillima Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 355. ♀ ♂.

sabinensis Cockerell. Ariz.
Melissodes sabinensis Cockerell, 1924. Amer. Mus. Novitates 113: 1. ♂.

saponellus Cockerell. Wash., Utah.
Melissodes saponellus Cockerell, 1908. Canad. Ent. 40: 234. ♀.

scotti Cockerell. Calif. (San Clemente Isl.).
Melissodes scotti Cockerell, 1939. Calif. Acad. Sci. Proc. (4) 23: 430. ♀.

semiagilis Cockerell. Colo., Okla., Tex.
Melissodes agilis semiagilis Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 364. ♂.
Melissodes semiagilis perlusa Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 231.
Taxonomy: Cockerell, 1914. Canad. Ent. 46: 413, ♀.

semitristis Cockerell. Ariz.
Melissodes semitristis Cockerell, 1905. Psyche 12: 102. ♂.

smithii (Dalla Torre). Calif.
Melissodes californica Smith, 1879. Descr. New Species Hym. Brit. Mus., p. 114. ♀ ♂. Preocc.
Eucera smithii Dalla Torre, 1895. Cat. Hym., v. 10, p. 247. ♂ ♀. N. name.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 328.

snowii Cresson. Kans., Colo.
Melissodes snowii Cresson, 1872. Acad. Nat. Sci. Phila. Proc. 24: 211. ♂.

sphaeralceae Cockerell. N. Mex.
Melissodes sphaeralceae Cockerell, 1896. Entomologist 29: 304. ♂.

spissa Cresson. Colo., Tex.
Melissodes spissa Cresson, 1872. Amer. Ent. Soc. Trans. 4: 280. ♀.

stearnsi Cockerell. Calif.
Melissodes stearnsi Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 101. ♀.

suavis Cresson. Colo.
Melissodes suavis Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 210. ♀.

suffusa Cresson. Colo., Ariz., N. Mex., Tex., ?Lower Calif.
Melissodes suffusa Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 203. ♀ ♂.
Melissodes suffusa var. *laterufa* Cockerell, 1934. Amer. Mus. Novitates 697: 10. ♀.

tenuitarsis Cockerell. Ariz.
Melissodes tenuitarsis Cockerell, 1905. Psyche 12: 99. ♂.

tepida Cresson. Nev., Calif.
Melissodes tepida Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 210. ♀.

texana flaveriae Cockerell. N. Mex.
Melissodes texana flaveriae Cockerell, 1906. Aner. Ent. Soc. Trans. 32: 108. ♀.

texana texana Cresson. Miss., Tex., Colo.
Melissodes texana Cresson, 1878. Amer. Ent. Soc. Trans. 4: 276. ♀ ♂.

thelypodii Cockerell. N. Mex.
Melissodes thelypodii Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 15: 527. ♀.

thurberiae Cockerell. Ariz.
Melissodes thurberiae Cockerell, 1914. Ent. Soc. Wash. Proc. 16: 31. ♀.

timberlakei Cockerell. Calif.
Melissodes timberlakei Cockerell, 1926. Ann. Mag. Nat. Hist. (9) 18: 624. ♀.
Biology: Hicks, 1936. Canad. Ent. 68: 47.

townsendi Cockerell. N. Mex.
Melissodes townsendi Cockerell, 1896. Entomologist 29: 304. ♂.

trinodis Robertson. N. J., N. C., Wis., Ill. On flowers of Astereae; Heliantheae; Cichorieae; Helenieae.
Melissodes trinodis Robertson, 1901. Canad. Ent. 33: 231. ♀ ♂.
Biology: Graenicher, 1905. Wis. Nat. Hist. Soc. Bul. 3: 164.

tristis Cockerell. Kans., Colo., N. Mex., Ariz., Calif. Mexico.
Melissodes tristis Cockerell, 1894. Ent. News 5: 234. ♂.
Melissodes pallidicincta Cockerell, 1896. Entomologist 29: 306. ♀. N. syn. (Timberlake).
Melissodes tristis var. *malvina* Cockerell, 1902. Entomologist 35: 177. ♂.
Melissodes pallidicincta erythrina Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 231. ♂. N. syn.

tuckeri Cockerell. Tex.
Melissodes Tuckeri Cockerell, 1909. Canad. Ent. 41: 129. ♀.

velutina (Cockerell), n. comb. Calif.
Exomalopsis velutinus Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 58. ♀.

vernoniae Robertson. Wis., Ill., Nebr. On flowers of *Veronina.*
Melissodes vernoniae Robertson, 1902. Canad. Ent. 34: 323. ♀ ♂.

wheeleri Cockerell. Tex.
Melissodes wheeleri Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 111. ♀.
Taxonomy: Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 367, ♂.

wickhami Cockerell. Tex.
Melissodes wickhami Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 112. ♀.

xanthopteralis Cockerell. Tex.
Melissodes xanthopteralis Cockerell, 1906. Ann. Mag. Nat. Hist. (7) 17: 362. ♂.

Nomina Nuda in Melissodes Latreille

Melissodes maura Bray, 1917. Jour. Ent. Zool. 9: 94.

Melissodes pullata Bray, 1917. Jour. Ent. Zool. 9: 94.

Genus XENOGLOSSODES Ashmead

?Tetraloniella Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 61.
Type: *Macrocera graia* Eversmann. Monob. and orig. desig.
Xenoglossodes Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 63.
Type: *Melissodes albata* Cresson. Monob. and orig. desig.
Revision: Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 74-92.

albata (Cresson). Ill., S. Dak., Kans., Colo., Okla., Tex.
Melissodes albata Cresson, 1872. Amer. Ent. Soc. Trans. 4: 281. ♀ ♂.
Taxonomy: Patton, 1879. U. S. Geol. and Geog. Survey Bul. 5: 474, ♂ ♀.

albertensis Cockerell. Alta.
Xenoglossodes albertensis Cockerell, 1937. Canad. Ent. 69: 87. ♀.

arizonica Cockerell. Ariz.
Xenoglossodes arizonica Cockerell, 1937. Amer. Mus. Novitates 948: 7. ♂.

davidsoni (Cockerell). Calif.; Lower Calif.
Xenoglossa davidsoni Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 28. ♀.
Synhalonia hirsutior Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 29. ♂.
Taxonomy: Cockerell, 1935. Pan-Pacific Ent. 11: 53, ♂.

eriocarpi (Cockerell). Tex., N. Mex., Ariz.
Exomalopsis eriocarpi Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 2: 453. ♀.

excurrens excurrens Cockerell. Colo., N. Mex.
Xenoglossodes excurrens Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 448. ♀.
Taxonomy: Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 259.—Cockerell, 1923. Ent. News 34: 50.

excurrens melanaspis (Cockerell). Colo.
Tetraloniella excurrens melanaspis Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 228. ♀.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 225.

excurrens verbesinarum (Cockerell). N. Mex.
Melissodes pecosella verbesinarum Cockerell, 1905. Biol. Soc. Wash. Proc. 18: 180. ♀.

gutierreziae Cockerell. N. Mex.
Xenoglossodes gutierreziae Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 16. 218. ♀.

habrocoma Cockerell. Tex.
Xenoglossodes habrocoma Cockerell, 1935. Amer. Mus. Novitates 766: 7. ♂ ♀.

helianthorum Cockerell. Tex.
Xenoglossodes helianthorum Cockerell, 1914. Canad. Ent. 46: 415. ♂.

imitatrix Cockerell and Porter. N. Mex.
Xenoglossodes imitatrix Cockerell and Porter, 1899. Ann. Mag. Nat. Hist. (7) 4: 407. ♂ ♀.

lippiae lippiae (Cockerell). N. Mex., Ariz.
Synhalonia crenulaticornis subsp. *lippiae* Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 14: 25. ♂
Taxonomy: Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 16: 224, ♀.

lippiae semilippiae (Cockerell). Ariz.
Synhalonia lippiae semilippiae Cockerell, 1905. Biol. Soc. Wash. Proc. 18: 179. ♀.

neotomae Cockerell. N. Mex.
Xenoglossodes neotomae Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 314. ♀ ♂.

pallidicauda Cockerell. Tex.
Xenoglossodes pallidicauda Cockerell, 1934. Amer. Mus. Novitates 697: 11. ♀.

pomonae (Cockerell), n. comb. Calif.
Tetralonia pomonae Cockerell, 1915. Pomona Jour. Ent. Zool. 7: 230. ♂.
Tetralonia pomona (!) Cockerell, 1930. Ann. Mag. Nat. Hist. (10) 5: 410.

wilmattae Cockerell. Tex.
Xenoglossodes wilmattae Cockerell, 1917. *In* W. P. Cockerell, N. Y. Ent. Soc. Jour. 25: 191. ♀.

Genus TETRALONIA Spinola

Macrocera Latreille, 1810. Consid. Gén. Crust. Arachn. Ins., p. 339. Preocc.
Type: (*Eucera antennata* Fabricius)=*Apis malvae* Rossi. Desig. by Latreille, 1810.
Tetralonia Spinola, 1838. Soc. Ent. France Ann. 7: 538. N. name.
Synhalonia Patton, 1879. U. S. Geol. and Geog. Survey Bul. 5: 473.
Type: *Melissodes fulvitarsis* Cresson. Orig. desig.
Eusynhalonia Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 63.
Type: *Melissodes edwardsii* Cresson. Monob. and orig. desig.
Synalonia Robertson, 1905. Amer. Ent. Soc. Trans. 31: 365. Emend. of *Synhalonia*.
Revisions: Robertson, 1905. Amer. Ent. Soc. Trans. 31: 366-367 (Illinois species).—Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 74-97.— Cockerell, 1914. Ann. Mag. Nat. Hist. (8) 8: 284-286 (partial key).

acerba (Cresson). Colo., Utah, Nev., Calif.
Melissodes acerba Cresson, 1879. Amer. Ent. Soc. Trans. 7: 210. ♀.
Melissodes nevadensis Cresson, 1879 (not 1874). Amer. Ent. Soc. Trans. 7: 209. ♂. Preocc. N. syn. (Timberlake).
Melissodes intrudens Cresson, 1879. Amer. Ent. Soc. Trans. 7: 225. N. name.
Taxonomy: Fowler, 1899. Canad. Ent. 10: 138, ♂.

actuosa (Cresson). Colo., B. C., Oreg., Calif.
Melissodes actuosa Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 208. ♀.
Synhalonia territella Cockerell, 1909. Entomologist 38: 146. ♂. N. syn. (Timberlake).
Taxonomy: Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 30, ♂.—Viereck, 1905. Canad. Ent. 16: 318, ♂.

albopilosa (Fowler). Calif.; Lower Calif.
Synhalonia albopilosa Fowler, 1899. Canad. Ent. 10: 138. ♂.
Taxonomy: Cockerell, 1924. Pan-Pacific Ent. 1: 55.

annae annae Cockerell. N. Mex.
Tetralonia annae Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 114. ♀.

annae patruelis Cockerell. Wyo.
Tetralonia annae patruelis Cockerell, 1924. Amer. Mus. Novitates 113: 2. ♀.

aragalli (Cockerell). Colo., N. Mex.
Synhalonia frater subsp. *aragalli* Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 14: 25. ♀.

argyrophila Cockerell. Tex.
Tetralonia argyrophila Cockerell, 1909. Entomologist 42: 147. ♂.

astragalina astragalina (Cockerell). Colo.
Synhalonia astragalina Cockerell, 1905. Ent. News 16: 271. ♂.

astragalina clarissima Cockerell. Idaho.
Tetralonia astragalina clarissima Cockerell, 1933. Ann. Mag. Nat. Hist. (10) 11: 372. ♂.

atriventris (Smith). Conn., N. J., N. C., Ill., Mo., ?Utah, ?Calif. On flowers of Leguminosae.
Melissodes atriventris Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 310. ♂.
Taxonomy: Robertson, 1897. Acad. Sci. St. Louis, Trans. 7: 353, ♂ ♀.
Biology: Rau, 1934. Acad. Sci. St. Louis, Trans. 28: 221.

belfragii (Cresson). Ill., Wyo., Tex., ?Calif.; ?Lower Calif.
Melissodes belfragii Cresson, 1872. Amer. Ent. Soc. Trans. 4: 278. ♀.
Mellissodes honesta Cresson, 1872. Amer. Ent. Soc. Trans. 4: 279. ♂.

birkmanniella Cockerell. Tex.
Tetralonia birkmanniella Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 93. ♂.

californica (Cresson). Calif.
Melissodes californica Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 196. ♂.

chrysobotryae Cockerell. Colo.
Tetralonia chrysobotryae Cockerell, 1908. Ann. Mag. Nat. Hist. (8) 2: 332. ♀ ♂.

chrysophila Cockerell. Colo., N. Mex.
Tetralonia chrysophila Cockerell, 1914. Ann. Mag. Nat. Hist. (8) 13: 384. ♀.

cordleyi (Viereck). B. C., Oreg., Calif., Colo.
Synhalonia Cordleyi Viereck, 1905. Canad. Ent. 16: 316. ♀ ♂.
Tetralonia poetica Cockerell, 1914. Ann. Mag. Nat. Hist. (8) 13: 424. ♂. N. syn. (Timberlake).
Tetralonia cordleyi postica (!) Cockerell, 1935. Pan-Pacific Ent. 11: 53.

crenulaticornis (Cockerell). Colo., N. Mex.
Melissodes crenulaticornis Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 2: 454. ♂.
Melissodes crenulaticornis form *maculata* Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 2: 455. ♂.
Taxonomy: Cockerell, 1899. Entomologist 32: 157, ♀.

cressoniana (Cockerell). Nebr., Tex.
Synhalonia cressoniana Cockerell, 1905. Biol. Soc. Wash. Proc. 18: 177. ♀.

dilecta (Cresson). N. C., Ind., Ill., Alta., S. Dak., Kans., Colo., N. Mex., Tex.
Melissodes dilecta Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 199. ♂ (part).
Taxonomy: Bradley, 1942. Ent. News 53: 190.
Biology: Folsom, 1922. Ent. Soc. Amer. Ann. 15: 182.

douglasiana Cockerell. Wash.
Tetralonia Douglasiana Cockerell, 1906. Canad. Ent. 38: 278. ♀.

dubitata (Cresson), n. comb. Ga.
Melissodes dubitata Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 194. ♀ ♂.

edwardsii (Cresson). B. C., Idaho, Wash., Calif., N. Mex.
Melissodes edwardsii Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 195. ♂.
Synhalonia edwardsii race *angustior* Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 347. ♀ ♂.
Tetralonia edwardsii vagabunda Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 95. ♂. N. syn. (Timberlake).
Tetralonia cordleyi orophila Cockerell, 1914. Ann. Mag. Nat. Hist. (8) 13: 284. ♀. N. syn. (Timberlake).
Taxonomy: Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 347, ♂ ♀.

fowleri (Cockerell). B. C., Oreg., Calif.
Synhalonia fowleri Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 28. ♀.

frater (Cresson). Wis., Ill., Kans., Colo., N. Mex., Calif.
Melissodes frater Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 197. ♂.

fulvitarsis (Cresson). Wyo., Colo.
Melissodes fulvitarsis Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 196. ♂.
Taxonomy: Patton, 1879. U. S. Geol. and Geog. Survey Bul. 5: 474, ♀.

fulvohirta (Cresson). N. C., Ga.
Melissodes fulvohirta Cresson. 1878. Acad. Nat. Sci. Phila. Proc. 30: 213. ♂.

fuscotincta (Cockerell). Ariz.
Synhalonia fuscotincta Cockerell. 1905. Biol. Soc. Wash. Proc. 18: 178. ♂.

hamata Bradley. Ill., Colo., Tex.
Tetralonia hamata Bradley, 1942. Ent. News 53: 189. ♂ ♀.

hirsutissima Cockerell. B. C.
Tetralonia hirsutissima Cockerell, 1916. Ann. Mag. Nat. Hist. (8) 17: 428. ♀.

idiotes (Cockerell). Calif.
Synhalonia idiotes Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 105. ♀.

illinoensis (Robertson). Ill.
Synhalonia illinoensis Robertson, 1902. Canad. Ent. 34: 49. ♂.

lata lata (Provancher). B. C., Wash., Oreg., Calif.
Melissodes lata Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 302. ♀.
Synhalonia edwardsii race *latior* Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 347. ♂.

lata lautipes Cockerell. Wyo.
Tetralonia lata lautipes Cockerell, 1924. Amer. Mus. Novitates 113: 2. ♀.

lepida (Cresson). Tex.
Melissodes lepida Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 198. ♂.

lutziana Cockerell. Colo.
Tetralonia lutziana Cockerell, 1933. Amer. Mus. Novitates 595: 2. ♂.

lycii (Cockerell). N. Mex.
Synhalonia lycii Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 348. ♀.

medicata Cockerell. Alta.
Tetralonia medicata Cockerell, 1911. Canad. Ent. 43: 34. ♀.

nigricornis (Provancher). B. C.
Melissodes nigricornis Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 302. ♂.
pagosana Cockerell. Colo.
Tetralonia pagosana Cockerell, 1925. Ann. Mag. Nat. Hist. (9) 16: 228. ♀.

phaceliae Cockerell. N. Mex.
Tetralonia phaceliae Cockerell, 1911. Amer. Ent. Soc. Trans. 37: 238. ♀.

robertsoni Cockerell. N. Y., D. C., Wis., Ill. On flowers of Leguminosae.
Synhalonia atriventris fuscipes Robertson, 1900. Acad. Sci. St. Louis, Trans. 10 54:. ♀. Preocc.
Tetralonia robertsoni Cockerell, 1914. Ann. Mag. Nat. Hist. (8) 13: 283. ♀. N. name.
Taxonomy: Timberlake believes this to be *atriventris* Smith.

rosae (Robertson). N. C., Ill., Mo.
Synhalonia rosae Robertson, 1900. Acad. Sci. St. Louis, Trans. 10: 54. ♀.
Tetralonia fedoris Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 93. ♂. N. syn. (Timberlake).
speciosa (Cresson). Ill., Kans., Colo., Tex., ?Calif.
Melissodes speciosa Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 198. ♀.
Synhalonia gillettei Cockerell, 1905. Ann. Mag. Nat. Hist. (7) 15: 203. ♂.
Synhalonia gillettei snoviana Cockerell, 1905. Biol. Soc. Wash. Proc. 18: 179. ♂.
Taxonomy: Cockerell, 1905. Entomologist 38: 148, ♂.

stretchii (Cresson). Calif.
Melissodes stretchii Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 207. ♀.

truttae (Cockerell). N. Mex.
Synhalonia truttae Cockerell, 1905. Entomologist 38: 147. ♂ ♀.

virgata (Cockerell). Calif.
Synhalonia belfragei subsp. *virgata* Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 100. ♀.
yakimensis Cockerell. Wash.
Tetralonia Yakimensis Cockerell, 1906. Canad. Ent. 38: 278. ♂.

Genus EUCERA Scopoli

Eucera Scopoli, 1770. Annus Hist. Nat., v. 4, p. 8.
Type: *Apis longicornis* Linnaeus. Desig. by Latreille, 1810.

maculata *Lepeletier.* America. No doubt exotic or incorrectly assigned to *Eucera.*
Eucera maculata Lepeletier, 1841. Hist. Nat. Ins. Hym., v. 2, p. 129. ♀.

Tribe ANTHOPHORINI[87]

Genus ANTHOPHORA Latreille

Revision: Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 64–72.—Michener, 1936. Amer. Mus. Novitates 876: 1–2 (small group only).

As there are several easily recognized subgenera, the species belonging to them have been segretated. The remaining species, among which subgenera have not been properly defined, are placed under the typical subgenus.

Subgenus ANTHOPHORA Latreille

Podalirius Latreille, 1802. Hist. Hat. Fourmis, p. 430. Name suppressed by Internatl. Comn. Zool. Nomencl., Op. 151, 1944.
Anthophora Latreille, 1803. Nouv. Dict. Hist. Nat., v. 18, p. 167. Proposed unnecessarily to replace *Podalirius* Latreille.
Type: (*Apis pilipes* Fabricius)=*Apis acervorum* Linnaeus. Desig. by Internatl. Comn. Zool. Nomencl., Op. 151, 1944.
Lasius Panzer [1801-1802]. Faunae Ins. German.,h. 86, no. 16. Name suppressed by Internatl. Comn. Zool. Nomencl., Op. 151, 1944.

[87] By Charles D. Michener, University of Kansas.

Podalirius subg. *Paramegilla* Friese, 1897. Die Bienen Europas, v. 3, p. 18. Type: *Apis ireos* Pallas. Desig. by Sandhouse, 1943.
Anthophoroides Cockerell and Cockerell, 1901. Ann. Mag. Nat. Hist. (7) 7: 48. Type: *Podalirius vallorum* Cockerell. Monob. and orig. desig.
Anthemoëssa Robertson, 1905. Amer. Ent. Soc. Trans. 31: 372. Preocc. Type: *Anthophora abrupta* Say. Monob. and orig. desig.
Melea Sandhouse, 1943. U. S. Natl. Mus. Proc. 92: 526. N. name.

abrupta Say. Mass. to N. C., west to Wis., Kans., and Tex.
Anthophora abrupta Say, 1837. Boston Jour. Nat. Hist. 1: 409. ♂.
Anthophora sponsa Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 339. ♀.
Biology: Walsh, 1868. Amer. Ent. 1: 9 (as *sponsa*).—Ashmead, 1894. Psyche 7: 25.—Frison, 1922. Amer. Ent. Soc. Trans. 48: 137-156.—Rau, 1922. Acad. Sci. St. Louis, Trans. 24 (7): 35.—Rau, 1926. Acad. Sci. St. Louis, Trans. 25: 166.—Rau, 1929. Jour. Compar. Psychol. 9: 53.—Rau, 1929. Psyche 36: 156.

abruptella Cockerell. Calif.
Anthophora abruptella Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 72. ♀.

affabilis Cresson. Colo., N. Mex., Tex.
Anthophora affabilis Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 189. ♂ ♀.

aterrima Cockerell. Calif.
Anthophora aterrima Cockerell, 1924. Pan-Pacific Ent. 1: 51. ♀ ♂.

bidentata (Provancher). Que.?
Ceratina bidentata Provancher, 1882. Nat. Canad. 13: 234. ♂.
Anthophora nudata Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 336. [♂.]

bomboides bomboides Kirby. Ont. to N. C., west to Wis. and Man.
Anthophora bomboides Kirby, 1837. *In* Richardson, Faune Bor.-Amer., v. 4, p. 271. ♂.
Anthophora canadensis Cresson, 1869. Amer. Ent. Soc. Trans. 2: 292. ♂.

bomboides neomexicana Cockerell. S. Dak., Wyo., Idaho, Colo., N. Mex., ?Nebr., ?Tex.
Anthophora bomboides var. *neomexicana* Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 408. ♂ ♀.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 224.—Hicks, 1931. Canad. Ent. 63: 175.

bomboides scutellaris Swenk. Nebr., Colo.
Anthophora scutellaris Swenk, 1909. Ent. News 20: 391. ♀.

bomboides sodalis Cresson. Wash., Oreg., east. Calif., Nev., ?Man., ?Alta.
Anthophora sodalis Cresson, 1879. Amer. Ent. Soc. Trans. 7: 212. ♂.

bomboides solitaria Ritsema. B. C., ?Calif.
Anthophora insularis Smith, 1879 (not 1857). Descr. New Species Hym. Brit. Mus., p. 124. ♀. Preocc.
Anthophora solitaria Ritsema, 1880. Tijdschr. v. Ent. 23: xcvii. N. name.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 331.

bomboides stanfordiana Cockerell. B. C., Wash., Oreg.; Calif.
Anthophora stanfordiana Cockerell, 1904. Ent. News 15: 32. ♂ ♀.
Biology: Kellogg, 1908. Amer. Ins., p. 517.—Nininger, 1920. Psyche 27: 135.—Linsley and MacSwain, 1942. Calif. Univ. Pubs. Ent. 7: 189.

bomboides willingi Cockerell. Sask.
Anthophora bomboides Willingi Cockerell, 1911. Canad. Ent. 43: 34. ♂.

capistrata Cresson. Tex; ?Lower Calif.
Anthophora capistrata Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 187. ♂.

centriformis centriformis Cresson. Nev.
Anthophora centriformis Cresson, 1879. Amer. Ent. Soc. Trans. 7: 212. ♂.

centriformis vierecki Cockerell. N. Mex., Calif.
Anthophora centriformis vierecki Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 69. ♂.

chlorops chlorops Michener. Wash.
Anthophora chlorops Michener, 1936. Brooklyn Ent. Soc. Bul. 31: 92. ♀.

chlorops utahensis Michener. Utah.
Anthophora chlorops utahensis Michener, 1936. Amer. Mus. Novitates 876: 2. ♀.

citreo-strigata Dours. North America. (No recent records; doubtless not Nearctic.)
Anthophora citreo-strigata Dours, 1868. Soc. Linn. Nord France Mem. 71: 95. ♀.
Podalirius citreostrigatus Dalla Torre, 1895. Cat. Hym., v. 10, p. 263. Emend.

crotchii Cresson. B. C., Wash., Calif.
Anthophora crotchii Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 192. ♂.
Anthophora Washingtoni Cockerell, 1905. *In* Viereck, Canad. Ent. 37: 313. ♀.
Taxonomy: Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 161, ♂.

dammersi Timberlake. Calif.
Anthophora dammersi Timberlake, 1937. Amer. Mus. Novitates 958: 15. ♂ ♀.

edwardsii Cresson. Wash., Utah, Nev., Calif.
Anthophora edwardsii Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 190. ♀ ♂.
Biology: Linsley and MacSwain, 1941. South. Calif. Acad. Sci. Bul. 40: 130.

fedorica Cockerell. Tex.
Anthophora fedorica Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 70. ♂.
Taxonomy: Cockerell, 1908. Ent. Soc. Wash. Proc. 9: 71, ♀.

forbesi Cockerell. Ariz.
Anthophora forbesi Cockerell, 1907. Canad. Ent. 39: 354. ♀.

frontata Say. La.
Anthophora frontata Say, 1837. Boston Jour. Nat. Hist. 1: 409. ♂.

fulvicauda Timberlake. Calif.
Anthophora fulvicauda Timberlake, 1937. Amer. Mus. Novitates 958: 14. ♀ ♂.

fumipennis Swenk. Nebr.
Anthophora fumipennis Swenk, 1909. Ent. News 20: 391. ♀.

fuscipennis Smith. North America. (No recent records.)
Anthophora fuscipennis Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 338. ♀.

gohrmanae Cockerell. Colo., N. Mex., Calif.
Anthophora gohrmanae Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 454. ♂.
Anthophora gohrmanae [var.] *coloradensis* Michener, 1936. Brooklyn Ent. Soc. Bul. 31: 92. ♂ ♀.

lesquerellae (Cockerell). N. Mex.
Podalirius lesquerellae Cockerell, 1896. Canad. Ent. 28: 197. ♀ ♂.
Taxonomy: Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 399, ♂.

linsleyi Timberlake. South. Calif., arid regions.
Anthophora linsleyi Timberlake, 1941. Pan-Pacific Ent. 17: 34. ♂ ♀.
Biology: Linsley and MacSwain, 1942. Amer. Midland Nat. 27: 402-417.

montana Cresson. Colo., Tex., N. Mex., Ariz.
Anthophora montana Cresson, 1869. Amer. Ent. Soc. Trans. 2: 290. ♀.

nebracensis Swenk. Nebr.
Anthophora nebracensis Swenk, 1909. Ent. News 20: 390. ♀.

neglecta Timberlake and Cockerell. Calif.
Anthophora neglecta Timberlake and Cockerell, 1936. *In* Cockerell, Amer. Mus. Novitates 831: 4. ♂ ♀.

nigrita Dours. "Indiana." No recent records; probably not North American.
Anthophora nigrita Dours, 1869. Soc. Linn. Nord France Mem. 2: 137. ♂.
Podilirius nigratus (!) Dalla Torre, 1896. Cat. Hym., v. 10, p. 278.

occidentalis Cresson. Mont., S. Dak., Oreg., Wyo., Kans., Colo., Utah, N. Mex.
Anthophora occidentalis Cresson, 1869. Amer. Ent. Soc. Trans. 2: 292. ♀ ♂.
Biology: Johnson, 1903. Ent. News 14: 290.—Hungerford and Williams, 1912. Ent. News 23: 259.—Long, 1925. Carnegie Inst. Wash., Yearbook 24: 340.—Mickel, 1928. Ent. News 39: 69.

pacifica infernalis (Dalla Torre). Utah, Nev., south. Calif.
Anthophora carbonaria Cresson, 1879. Amer. Ent. Soc. Trans. 7: 210. ♀. Preocc.
Podalirius pacifica infernalis Dalla Torre, 1895. Cat. Hym., v. 10, p. 273. N. name.
Anthophora corvicolor Cockerell, 1905. Ent. News 16: 81. ♀.

pacifica pacifica Cresson. B. C., Wash., Oreg., north. Calif., Nev.
Anthophora pacifica Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 190. ♂.
Anthophora ignava Cresson, 1879. Amer. Ent. Soc. Trans. 7: 210. ♀.

phenax (Cockerell). N. Mex.; Mexico.
Podalirius phenax Cockerell, 1898. Canad. Ent. 30: 146. ♂.

porterae Cockerell. Wyo., Colo., N. Mex., ?Calif.
Anthophora porterae Cockerell, 1900. Ann. Mag. Nat. Hist. (7) 5: 407. ♂ ♀.
Anthophora porterae [var.] *semiflava* Cockerell, 1905. Biol. Soc. Wash. Proc. 18: 183. ♂.
Anthophora porterae var. *watsoni* Cockerell, 1911. Amer. Ent. Soc. Trans. 37: 238. ♂.
Anthophora porterae mut. *Thalassiana* Cockerell, 1920. Nature 105: 518. ♂.

pyralitarsis Dours. N. Y. (No recent records; locality doubtless incorrect.)
Anthophora pyralitarsis Dours, 1869. Soc. Linn. Nord France Mem. 2: 160. ♂.

raui Rohwer. Mo., Colo.
Anthophora raui Rohwer, 1923. Ent. Soc. Wash. Proc. 25: 100.
Biology: Rau, 1926. Acad. Sci. St. Louis, Trans. 25: 179.—Rau, 1929. Psyche 36: 555.

subglobulosa Provancher. Que.
Anthophora subglobulosa Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., v. 2, p. 297. ♂.

subignava Cockerell. Colo.
Anthophora subignava Cockerell, 1929. N. Y. Ent. Soc. Jour. 37: 443. ♀.

urbana catalinae Cockerell. Calif. (Santa Catalina Isl.).
Anthophora catalinae Cockerell, 1901. Canad. Ent. 33: 297. ♀.

urbana clementina Cockerell. Calif. (San Clemente Isl.).
Anthophora catalinae clementina Cockerell, 1939. Calif. Acad. Sci. Proc. (4) 23: 430. ♀ ♂.

urbana nicolai Cockerell. Calif. (San Nicolas Isl.).
Anthophora nicolai Cockerell, 1939. Calif. Acad. Sci. Proc. (4) 23: 429. ♀ ♂.

urbana urbana Cresson. Idaho, Wash., Colo., Utah, N. Mex., Ariz., Calif.: Lower Calif.
Anthophora urbana Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 188. ♀ ♂.
Podalirius alamosanus Cockerell, 1896. Canad. Ent. 28: 195. ♀.
Biology: Davidson, 1897. South. Calif. Acad. Sci. Proc. 1: 4 (as *montana*).

ursina californiensis Michener. Calif.
Anthophora simillima var. *californiensis* Michener, 1935. Pan-Pacific Ent. 11: 182. ♂ ♀.

ursina simillima Cresson. Wash., Wyo., Colo., N. Mex., Ariz.
Anthophora simillima Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 189. ♂.
Anthophora euops Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 451. ♂.
Taxonomy: Patton, 1879. U. S. Geol. and Geog. Survey Bul. 5: 478. ♂ ♀.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 225.

ursina ursina Cresson. N. Y., W. Va., N. C., Wis., Ill., ?N. Mex.
Anthophora ursina Cresson 1869. Amer. Ent. Soc. Trans. 2: 291. ♂.
Taxonomy: Robertson, 1905. Amer. Ent. Soc. Trans. 31: 372, ♀ ♂.

vallorum (Cockerell). N. Mex.; Mexico.
Podalirius vallorum Cockerell, 1896. Canad. Ent. 28: 195. ♂ ♀.

Subgenus CLISODON Patton

Clisodon Patton, 1879. U. S. Geol. and Geog. Survey Bul. 5: 479.
Type: (*Anthophora terminalis* Cresson)=*Anthophora furcata terminalis* Cresson. Monob. and orig. desig.

furcata neofurcata (Sladen). B. C.
Clisodon neofurcata Sladen, 1919. Canad. Ent. 51: 125. ♂ ♀.

furcata pernigra Cresson. Nev., Calif.
Anthophora pernigra Cresson, 1879. Amer. Ent. Soc. Trans. 7: 210. ♀.

furcata sperryi (Cockerell), n. comb. Ariz.
Clisodon terminalis sperryi Cockerell, 1937. South. Calif. Acad. Sci. Bul. 36: 107. ♂.

furcata syringae (Cockerell). Wash., Calif.
Padalirius syringae Cockerell, 1898. Acad. Nat. Sci. Phila. Proc. 50: 54. ♂.
Taxonomy: Cockerell, 1924. Pan-Pacific Ent. 1: 50.

furcata terminalis Cresson. Que. to N. C., west to Ill., Colo., N. Mex., Ariz., Utah, Alta., ?B. C. On flowers of *Stachys*.
Anthophora terminalis Cresson, 1869. Amer. Ent. Soc. Trans. 2: 292. ♀ ♂.
Anthophora nubiterrae Viereck, 1903. Amer. Ent. Soc. Trans. 29: 45. ♂.
Biology: W. P. Cockerell, 1903. Birds and Nature, v. 14, p. 127.

Anthophora furcata furcata and other subspecies are Palearctic.

Subgenus AMEGILLA Friese

Podalirius subg. *Amegilla* Friese, 1897. Die Bienen Europas, v. 3, p. 18.
Type: *Apis quadrifasciata* Villers. Desig. by Cockerell, 1931.
Alfkenella Börner, 1919. Biol. Zentbl. 39: 168.
Type: *Apis quadrifasciata* Villers. Orig. desig.
Revision: Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 88.

californica albomarginata Timberlake. Calif., desert.
Anthophora californica albomarginata Timerblake, 1937. Amer. Mus. Novitates 958: 13. ♀ ♂.

californica californica Cresson. Colo., N. Mex., Ariz., Calif.; Lower Calif.
Anthophora californica Cresson, 1869. Amer. Ent. Soc. Trans. 2: 290. ♂.
Anthophora 5-fasciata Provancher, 1895. Nat. Canad. 22: 172. N. syn.
Anthophora tarsata subtarsata Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 88. ♂ ♀. N. syn. (Timberlake).
Taxonomy: Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 154, ♂.

californica erysimi Cockerell. (San Miguel Is.).
Anthophora californica erysimi Cockerell, 1937. Pan-Pacific Ent. 13: 150. ♀.

californica texana Cresson. Colo., N. Mex., Ariz., Tex.
Anthophora texana Cresson, 1872. Amer. Ent. Soc. Trans. 4: 282. ♀.
Taxonomy: Cockerell, 1905. Canad. Ent. 37: 335, ♂.

marginata Smith. N. Mex., Ariz.; Mexico.
Anthophora marginata Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 339. ♀.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 331, ♀ ♂.

smithii Cresson. S. Dak., Kans., Colo., Tex., N. Mex., Ariz.
Anthophora smithii Cresson, 1869. Amer. Ent. Soc. Trans. 2: 289. ♂ ♀.
Podalirius cardui Cockerell, 1897. Amer. Ent. Soc. Trans. 24: 155. ♂.
Biology: Banks, 1902. N. Y. Ent. Soc. Jour. 10: 212.

walshii Cresson. Mass., Wis., Ill., Iowa, Nebr., Mo., Kans., Colo., Tex., ?Ariz. On flowers of *Cassia*.
Anthophora walshii Cresson, 1869. Amer. Ent. Soc. Trans. 2: 290. ♂ ♀.

Subgenus MICRANTHOPHORA Cockerell

Anthophora subg. ***Micranthophora*** Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 66.
Type: ***Anthophora curta*** Provancher. Orig. desig.

abroniae Timberlake. Ariz., Calif.
Anthophora abroniae Timberlake, 1937. Amer. Mus. Novitates 958: 6. ♂ ♀.

albata Cresson. Kans., Colo.
Anthophora albata Cresson, 1876. Davenport Acad. Sci. Proc. 1: 211. ♀

arthuri Cockerell. Colo.
Anthophora arthuri Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 72. ♀.

cockerelli Timberlake. Calif.
Anthophora cockerelli Timberlake, 1937. Amer. Mus. Novitates 958: 4. ♂ ♀.

columbariae Timberlake and Cockerell. Calif.
Anthophora (Micranthophora) columbariae Timberlake and Cockerell, 1937. *In* Cockerell, Amer. Mus. Novitates 948: 9. ♂ ♀.

curta curta Provancher. Calif.; Lower Calif.
Anthophora curta Provancher, 1895. Nat. Canad. 22: 173. ♀.
Anthophora curta var. ***ensenadensis*** Cockerell, 1941. San Diego Soc. Nat. Hist. Trans. 9: 349. ♂.
Taxonomy: Cockerell, 1907. Ent. News 18: 396, ♂.

curta melanops Cockerell. Colo., Tex., N. Mex., Ariz.; Mexico.
Anthophora curta var. ***melanops*** Cockerell, 1926. Pan-Pacific Ent. 3: 84. ♂.
Biology: Hicks, 1934. Colo. Univ., Studies 21: 265.

erythrothorax Michener. Calif.
Anthophora erythrothorax Michener, 1936. Brooklyn Ent. Soc. Bul. 31: 93. ♀.

exigua Cresson. N. Mex., Nev., Calif.
Anthophora exigua Cresson, 1879. Amer. Ent. Soc. Trans. 7: 211. ♀ ♂.

flavocincta Huard. Calif.
Anthophora nigrocincta Provancher, 1895. Nat. Canad. 22: 172. ♂. Preocc.
Anthophora flavocincta Huard, 1897. Nat. Canad. 24: 25. N. name.
Anthophora anstrutheri Cockerell, 1906. Amer. Ent. Soc. Trans. 32: 71. ♀. N. syn. (Timberlake).

flexipes Cresson. Colo., Nev., Calif.
Anthophora flexipes Cresson, 1879. Amer. Ent. Soc. Trans. 7: 211. ♀ ♂.

hololeuca Cockerell. Calif.; northwest. Mexico, desert.
Anthophora hololeuca Cockerell, 1923. Calif. Acad. Sci. Proc. (4) 12: 82. ♀ ♂.

maculifrons Cresson. N. Mex., Nev., Calif.; ?Lower Calif.
Anthophora maculifrons Cresson, 1879. Amer. Ent. Soc. Trans. 7: 210. ♀ ♂.

mortuaria Timberlake. Calif.
Anthophora mortuaria Timberlake, 1937. Amer. Mus. Novitates 958: 10. ♂ ♀.

nigritula Cockerell. Calif.
Anthophora nigritula Cockerell, 1924. Pan-Pacific Ent. 1: 52. ♀.
Taxonomy: Michener, 1936. Brooklyn Ent. Soc. Bul. 31: 93, ♂.

pachyodonta Cockerell. South. Calif.; Lower Calif., deserts.
Anthophora pachyodonta Cockerell, 1923. Calif. Acad. Sci. Proc. (4) 12: 80. ♂.

peritomae Cockerell. Wyo., Colo., N. Mex.
Anthophora curta var. ***peritomae*** Cockerell, 1905. Ent. News 16: 272. ♂.
Anthophora peritomae var. ***interspersa*** Cockerell, 1907. Ent. News 18: 397. ♂.

Anthophora peritomae var. *tinctula* Cockerell, 1907. Ent. News 18: 397. ♀.
Taxonomy: Cockerell, 1907. Ent. News 18: 396, ♂ ♀.

petrophila Cockerell. N. Mex., Calif.
Anthophora curta subsp. *petrophila* Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 15. ♀.
Taxonomy: Cockerell, 1907. Ent. News 18: 395, ♂.

rhodothorax Michener. Calif.
Anthophora rhodothorax Michener, 1936. Brooklyn Ent. Soc. Bul. 31: 94. ♀ ♂.
Anthophora emarginata Timberlake, 1937. Amer. Mus. Novitates 958: 11. ♂ ♀. N. syn. (Timberlake).

salazariae Timberlake. Calif.
Anthophora salazariae Timberlake, 1937. Amer. Mus. Novitates 958: 7. ♀ ♂.

Genus EMPHOROPSIS Ashmead

Emphoropsis Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 60.
Type: *Habropoda floridana* Smith. Desig. by Cockerell and Cockerell, 1901.
Meliturgopsis Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 62.
Type: (*Emphoropsis murihirta murina* Cockerell)=*Emphoropsis murina* Cockerell. First included species, Cockerell, 1909.
Revision: Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 99–100.

birkmanni Cockerell. Tex.
Emphoropsis Birkmanni Cockerell, 1905. Canad. Ent. 37: 265. ♀.
Taxonomy: Cockerell, 1934. Amer. Mus. Novitates 732: 2, ♀ ♂.

cineraria (Smith). B. C., Wash., Calif.
Anthophora cineraria Smith, 1879. Descr. New Species Hym. Brit. Mus., p. 124. ♀ ♂.
Taxonomy: Cockerell, 1904. Canad. Ent. 36: 302.

citula Cockerell. Colo.
Emphoropsis citulus Cockerell, 1929. N. Y. Ent. Soc. Jour. 37: 442. ♂.

cressoni (Dalla Torre). Wyo., Colo., ?B. C.
Anthophora mucida Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 191. ♀. Preocc.
Podalirius cressoni Dalla Torre, 1895. Cat. Hym., v. 10, p. 264. N. name.
Emphoropsis mucida var. *johnsoni* Cockerell, 1905. Entomologist 38: 59. ♀ ♂.
Emphoropsis mucida var. *ventralis* Michener, 1936. Amer. Mus. Novitates 876: 3. ♀.
Taxonomy: Cockerell, 1907. Colo. Univ., Studies 4: 256, ♂.—Michener, 1936. Amer. Mus. Novitates 876: 3, ♀ ♂.

dammersi Timberlake. Calif.
Emphoropsis dammersi Timberlake, 1937. Amer. Mus. Novitates 958: 2. ♀ ♂.

depressa (Fowler). Calif.
Habropoda depressa Fowler, 1899. Canad. Ent. 31: 283. ♀ ♂.

floridana fedorensis Cockerell. Tex.
Emphoropsis floridana var. *fedorensis* Cockerell, 1905. Canad. Ent. 37: 265. ♂ ♀.

floridana floridana (Smith). Conn. to Fla., west to Ill. and Miss.
Anthophora floridana Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 339. ♀ ♂.

interspersa Cockerell. Calif.
Emphoropsis interspersa Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 99. ♂.
Taxonomy: Cockerell, 1924. Pan-Pacific Ent. 1: 50.

miserabilis (Cresson). Calif.
Anthophora miserabilis Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 191. ♂.
Taxonomy: Fowler, 1899. Canad. Ent. 31: 284, ♀.

morrisoni (Cresson). Colo.
Anthophora morrisoni Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 192. ♂.

murihirta Cockerell. Calif.
Emphoropsis murihirta Cockerell, 1905. Ent. News 16: 81. ♂.

murina Cockerell. Calif.
Emphoropsis murihirta murina Cockerell, 1909. U. S. Natl. Mus. Proc. 36: 414. ♂.
Taxonomy: Cockerell, 1924. Pan-Pacific Ent. 1: 49, ♂ ♀.

pallida Timberlake. Ariz., Calif., desert.
Emphoropsis pallida Timberlake, 1937. Amer. Mus. Novitates 958: 1. ♀ ♂.

pascoensis (Cockerell). Wash.
Habropoda floridana var. *pascoensis* Cockerell, 1898. Acad. Nat. Sci. Phila. Proc. 50: 54. ♀.

rugosissima Cockerell. Nev.; Lower Calif.
Emphoropsis rugosissima Cockerell, 1905. Biol. Soc. Wash. Proc. 18: 182. ♀.

salviae Michener. Calif.
Emphoropsis salviae Michener, 1936. Brooklyn Ent. Soc. Bul. 31: 95. ♂.

salviarum (Cockerell). N. Mex., Ariz.
Habropoda salviarum Cockerell, 1898. N. Mex. Agr. Expt. Sta. Bul. 24: 42. ♂ ♀.

semifulva Cockerell. Calif.
Emphoropsis semifulva Cockerell, 1905. South. Calif. Acad. Sci. Bul. 4: 99. ♂.

tristissima Cockerell. Calif.
Emphoropsis infernalis subsp. *tristissima* Cockerell, 1904. South. Calif Acad. Sci. Bul. 3: 161. ♀.

vierecki Cockerell. Colo., N. Mex.
Emphoropsis vierecki Cockerell, 1909. U. S. Natl. Mus. Proc. 36: 414.

Tribe HEMISIINI[88]

Genus HEMISIA Klug

Hemisia Klug, 1807. Mag. Insektenk. 6: 227.
Type: *Apis haemorrhoidalis* Fabricius. Desig. by Cockerell, 1906.
Trachina Klug, 1807. Mag. Insektenk. 6: 226.
Type: *Centris longimana* Fabricius. Desig. by Cockerell, 1906.
Ptilotopus Klug, 1810. Mag. Gesell. Naturf. Freunde Berlin 4: 31.
Type: *Ptilotopus americanorum* Klug. Monob.
Gundlachia Cresson, 1865. Ent. Soc. Phila. Proc. 4: 195. Preocc.
Type: (*Centris* ? *cornuta* Cresson)=*Centris difformis* Smith. Monob.
Heterocentris Cockerell, 1899. Entomologist 32: 14. N. name.
Type: (*Centris* ? *cornuta* Cresson)=*Centris difformis* Smith. Autob.
Centris subg. *Melanocentris* Friese, 1900. K. K. Naturhist. Hofmus. Ann. 15: 244.
Type: *Centris atra* Friese. Desig. by Sandhouse, 1943.
Centris subg. *Rhodocentris* Friese, 1900. K. K. Naturhist. Hofmus. Ann. 15: 244.
Type: (*Centris* ? *cornuta* Cresson)=*Centris difformis* Smith. Desig. by Sandhouse, 1943.
Centris subg. *Cyanocentris* Friese, 1900. K. K. Naturhist. Hofmus. Ann. 15: 244.
Type: *Apis versicolor* Fabricius. Desig. by Sandhouse, 1943.
Centris subg. *Poecilocentris* Friese, 1900. K. K. Naturhist. Hofmus. Ann. 15: 244.
Type: *Centris fasciatella* Friese. Desig. by Sandhouse, 1943.

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[88] By Charles D. Michener, University of Kansas.

Paracentris Cameron, 1903. Amer. Ent. Soc. Trans. 29: 235.
Type: *Paracentris fulvohirta* Cameron. Monob.
Revisions: Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 397–398 (N. Mex. species). —Friese, 1900. K. K. Naturhist. Hofmus. Ann. 15: 237–230.

aterrima (Smith). South. Ariz.; Mexico.
Centris aterrima Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 378. ♂.

atripes atripes (Mocsáry). Tex., Ariz.; Mexico. Another subspecies is described from Lower California.
Centris atripes Mocsáry, 1899. Termés. Füzetek 22: 254. ♂.
Centris atriventris Fox, 1899. Acad. Nat. Sci. Phila. Proc. 51: 68. ♀ ♂. Preocc.
Centris foxi Friese, 1900. K. K. Naturhist. Hofmus. Ann. 15: 350. N. name.

birkmannii (Friese). Tex.
Centris birkmannii Friese, 1900. Termés. Füzetek 23: 44. ♂ ♀.

caesalpiniae (Cockerell). Tex., N. Mex., Ariz.; Mexico.
Centris caesalpiniae Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 394. ♀ ♂.

californica (Timberlake). Calif.
Centris californica Timberlake, 1940. Pan-Pacific Ent. 16: 139. ♀.

hoffmanseggiae davidsoni (Cockerell). South. Calif.
Centris hoffmanseggiae subsp. *davidsoni* Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 160. ♂.

hoffmanseggiae hoffmanseggiae (Cockerell). N. Mex.
Centris hoffmanseggiae Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 395. ♂ (♀ misdet.).
Taxonomy: Cockerell, 1900. Canad. Ent. 32: 363, ♂ ♀.

lanosa lanosa (Cresson). Kans., Tex., N. Mex., Ariz.; Mexico.
Centris lanosa Cresson, 1872. Amer. Ent. Soc. Trans. 4: 284. ♂.
Centris Cockerellii Fox, 1899. Acad. Nat. Sci. Phila. Proc. 51: 68. ♀. N. syn. (Timberlake).
Taxonomy: Cockerell, 1904. South. Calif. Acad. Sci. Bul. 3: 160, ♀.

lanosa resoluta (Cockerell), n. comb. South. Calif.; Lower Calif.; deserts.
Centris cockerelli resoluta Cockerell, 1923. Calif. Acad. Sci. Proc. (4) 12: 76. ♀ ♂.

limbata (Friese). Tex.
Centris limbata Friese, 1900. Termés. Füzetek 23: 44. ♀.

morsei (Cockerell). West. Tex., N. Mex., Ariz.; Mexico.
Centris morsei Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 355. ♂.
Centris marginata Fox, 1899. Acad. Nat. Sci. Phila. Proc. 51: 67. ♂.

pallida (Fox). Ariz., south. Calif.; north. Mexico, desert.
Centris pallida Fox, 1899. Acad. Nat. Sci. Phila. Proc. 51: 66. ♀.

rhodoleuca (Cockerell). Calif.; Lower Calif.; deserts.
Centris rhodoleuca Cockerell, 1923. Calif. Acad. Sci. Proc. (4) 12: 75. ♂.

rhodomelas (Timberlake). Calif.
Centris rhodomelas Timberlake, 1940. Pan-Pacific Ent. 16: 139. ♀ ♂.

rhodopus (Cockerell). Tex., N. Mex., Ariz., Calif.; Mexico, desert.
Centris caesalpiniae var. *rhodopus* Cockerell, 1897. Ann. Mag. Nat. Hist. (6) 19: 394. ♀ ♂.
Centris rhodopus var. *pulchrior* Cockerell, 1900. Canad. Ent. 32: 363. ♂.

subhyalina (Fox). Tex. (Possibly = *lanosa*.)
Centris subhyalina Fox, 1899. Acad. Nat. Sci. Phila. Proc. 51: 69. ♀.

tiburonensis (Cockerell). South. Calif.; Mexico.
Centris tiburonensis Cockerell, 1923. Calif. Acad. Sci. Proc. (4) 12: 78. ♀.

versicolor (Fabricius). South. Fla.; widespread in American tropics.
Apis versicolor Fabricius, 1775. Systema Ent., p. 386.
?*Centris ardens* Smith, 1874. Ann. Mag. Nat. Hist. (4) 13: 367. ♀.
Centris errans Fox, 1899. Acad. Nat. Sci. Phila. Proc. 51: 65. ♀.
For additional synonymy, see Moure, 1945, Rev. de Ent. 16: 404.

Tribe MELECTINI[89]

Genus MELECTA Latreille

Revision: Linsley, 1939. Ent. Soc. Amer. Ann. 32: 433–463.

Subgenus MELECTA Latreille

Melecta Latreille, 1802. Hist. Nat. Fourmis, p. 427.
Type: (*Apis*) *Centris punctata* (Fabricius). Desig. by Latreille, 1810.
Symmorpha Klug, 1807. Mag. f. Insektenk. 6: 198, 227.
Type: (*Apis*) *Centris punctata* (Fabricius). Monob.
Bombomelecta Patton, 1879. U. S. Geol. and Geog. Survey Bul., p. 370.
Type: *Melecta thoracica* Cresson. Monob.

atlantica Linsley. N. J. to Ga.
Melecta (*Melecta*) *atlantica* Linsley, 1943. N. Y. Ent. Soc. Jour. 51: 225. ♀.
Taxonomy: Michener, 1948. Ent. Soc. Wash. Proc. 50: 17, ♀ ♂.

bohartorum Linsley. Calif.
Melecta (*Melecta*) *bohartorum* Linsley, 1939. Ent. Soc. Amer. Ann. 32: 442. ♀.

fulvida Cresson. B. C. and Alta. to Calif., Ariz., N. Mex., Tex.
Melecta fulvida Cresson, 1878. Amer. Ent. Soc. Trans. 7: 204. ♀.
Taxonomy: Michener, 1948. Ent. Soc. Wash. Proc. 50: 17, ♂.

pacifica Cresson. B. C. to Calif., Colo., Nebr.
Melecta pacifica Cresson, 1878. Amer. Ent. Soc. Trans. 7: 91. ♂.

semifulva (Cockerell). Colo.
Bombomelecta semifulva Cockerell, 1921. Ann. Mag. Nat. Hist. (9) 7: 212. ♂.

separata alfredi (Cockerell). N. Mex.
Bombomelecta alfredi Cockerell, 1895. Psyche 7 (sup.): 11.

separata arizonica (Cockerell). Ariz.
Bombomelecta arizonica Cockerell, 1902. Canad. Ent. 34: 267. ♀.

separata callura (Cockerell). B. C. to Calif., Nev. Host: ?*Anthophora edwardsii* Cresson.
Bombomelecta callura Cockerell, 1926. Pan-Pacific Ent. 3: 58. ♂.

separata johnsoni (Cockerell). Colo.
Bombomelecta johnsoni Cockerell, 1905. Ent. News 16: 270. ♂.

separata mojavensis Linsley. Calif.
Melecta (*Melecta*) *separata mojavensis* Linsley, 1939. Ent. Soc. Amer. Ann. 32: 446. ♀ ♂.

separata separata Cresson. Nev., Utah.
Melecta separata Cresson, 1878. Amer. Ent. Soc. Trans. 7: 204. ♀.

sierrae Linsley. Calif.
Melecta (*Melecta*) *sierrae* Linsley, 1939. Ent. Soc. Amer. Ann. 32: 437. ♀ ♂.
Biology: Linsley, 1943. Pan-Pacific Ent. 19: 160.

thoracica Cresson. S. Dak., Colo., Nev.(?).
Melecta thoracica Cresson, 1875. Rpt. Geog. Geol. Expl. and Survey west of 100th Meridian, v. 5, p. 726.
Taxonomy: Linsley, 1945. Ent. News 56: 151, f. 1, ♀.

Subgenus MELECTOMIMUS Linsley

Melecta subg. *Melectomimus* Linsley, 1939. Ent. Soc. Amer. Ann. 32: 448.
Type: *Melecta edwardsii* Cresson. Monob. and orig. desig.

edwardsii Cresson. Calif. Host: ?*Emphoropsis* sp.
Melecta edwardsii Cresson, 1878. Amer. Ent. Soc. Trans. 7: 92. ♂.
Bombomelecta zygos Viereck, 1903. Amer. Ent. Soc. Trans. 29: 179. ♀.

[89] By E. Gorton Linsley, University of California.

Subgenus XEROMELECTA Linsley

Melecta subg. ***Xeromelecta*** Linsley, 1939. Ent. Soc. Amer. Ann. 32: 450.
Type: ***Bombomelecta larreae*** Cockerell. Monob. and orig. desig.

larreae (Cockerell). N. Mex. to Nev., south. Calif.
Bombomelecta larreae Cockerell, 1900. Canad. Ent. 32: 361. ♀.
Bombomelecta azygos Viereck, 1903. Amer. Ent. Soc. Trans. 29: 181. ♂.

Subgenus MELECTOMORPHA Linsley

Melecta subg. ***Melectomorpha*** Linsley, 1939. Ent. Soc. Amer. Ann. 32: 451.
Type: ***Melecta californica*** Cresson. Orig. desig.

californica californica Cresson. North. Mexico to Mo., Ariz., Nev., Calif., Oreg.
Hosts: *Anthophora urbana* Cresson; *A. linsleyi* Timb.; *A. abrupta* Say; *A. edwardsii* Cresson; *A. stanfordiana* Cockerell.
Melecta californica Cresson, 1878. Amer. Ent. Soc. Trans. 7: 91. ♂ ♀.
Biology: Linsley and MacSwain, 1942. Amer. Midland Nat. 27: 408, f. 10.

californica miranda Fox. Tex. to S. Dak., Colo. Hosts: *Anthophora neomexicana* (Cockerell); *A. occidentalis* Cresson.
Melecta miranda Fox, 1893. Ent. News 4: 143. ♀.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 224.—Mickel, 1928. Ent. News 39: 73.

interrupta Cresson. Tex. to Nebr., Colo.
Melecta interrupta Cresson, 1872. Amer. Ent. Soc. Trans. 4: 275. ♀ ♂.
Melecta interrupta var. ***fallugiae*** Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 14: 23.

pasadenensis (Cockerell). Calif. to B. C.
Pseudomelecta pasadenensis Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 27. ♀.
Melecta sladeni Viereck, 1924. Canad. Ent. 56: 15. ♀.

rociadensis Cockerell. N. Mex., Colo.
Melecta interrupta var. ***rociadensis*** Cockerell, 1904. Ann. Mag. Nat. Hist. (7) 14: 23.

Genus BRACHYMELECTA Linsley

Brachymelecta Linsley, 1939. Ent. Soc. Amer. Ann. 32: 458.
Type: ***Melecta? mucida*** Cresson. Monob. and orig. desig.

mucida (Cresson). Nev.
Melecta? mucida Cresson, 1878. Amer. Ent. Soc. Trans. 7: 205. ♂.

Genus ZACOSMIA Ashmead

Zacosmia Ashmead, 1898. Psyche 8: 282.
Type: ***Melecta maculata*** Cresson. Monob. and orig. desig.
Micromelecta Baker, 1906. Invertebrata Pacifica, v. 1, p. 143.
Type: ***Melecta maculata*** Cresson. Monob. and orig. desig.

maculata desertorum Cockerell. North. Mexico, Lower Calif. to south. Calif., Ariz., Tex.
Zacosmia maculata desertorum Cockerell, 1916. Canad. Ent. 48: 391. ♂.

maculata maculata (Cresson). Calif. and Nev. to Wash. Host: *Micranthophora* sp.
Melecta maculata Cresson, 1878. Amer. Ent. Soc. Trans. 7: 204. ♀ ♂.
Biology: Hicks, 1934. Colo. Univ., Studies 21 (4): 265–267.

suffusa (Viereck). Alta.
Melecta (Pseudomelecta?) suffusa Viereck, 1924. Canad. Ent. 56: 15. ♀.

Tribe ERICROCINI[90]

[90] By E. Gorton Linsley, University of California.

Genus ERICROCIS Cresson

Ericrocis Cresson, 1887. Amer. Ent. Soc. Trans. Sup. Vol., pp. 131, 134.
Type: ***Crocisa? lata*** Cresson. Monob.
Revision: Linsley, 1939. Ent. Soc. Amer. Ann. 32: 463–468.

arizonensis Baker. North. Mexico, Lower Calif.; south. Calif., Ariz. Host: *Anthophora* sp.
Ericrocis arizonensis Baker, 1906. Invertebrata Pacifica, v. 1, p. 143. ♂.
Ericrocis melectoides Baker, 1906. Invertebrata Pacifica, v. 1, p. 144. ♀ (♂ misdet.).

lata (Cresson). Tex. to south. Calif.
Crocisa? lata Cresson, 1878. Amer. Ent. Soc. Trans. 7: 91. ♂.

Subfamily XYLOCOPINAE[91]

Tribe CERATININI

Genus CERATINA Latreille

Revisions: Smith, 1907. Amer. Ent. Soc. Trans. 33: 115–124.—Sandhouse, 1935. Ent. Soc. Wash. Proc. 37: 93–95 (east. species).—Michener, 1936. Amer. Mus. Novitates 844: 1–13.

Subgenus CERATINA Latreille

Clavicera Latreille, 1802. Hist. Nat. Fourmis, p. 433.
Type: (***Hylaeus albilabris*** Fabricius)=***Apis cucurbitina*** Rossi. Monob.
Ceratina Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 380. Proposed to replace *Clavicera*.
Type: (***Hylaeus albilabris*** Fabricius)=***Apis cucurbitina*** Rossi. Autob.

arizonensis arizonensis Cockerell. Ariz., Calif.; Lower Calif. Another subspecies occurs in Mexico.
Ceratina arizonensis Cockerell, 1898. Canad. Ent. 30: 238. ♂.
Taxonomy: Cockerell, 1901. Canad. Ent. 33: 281, ♀.

cockerelli H. S. Smith. Fla., Tex.
Ceratina lunata H. S. Smith, 1907. Amer. Ent. Soc. Trans. 33: 119. ♂ ♀. Preocc.
Ceratina cockerelli H. S. Smith, 1907. Canad. Ent. 39: 260. N. name.

Subgenus ZADONTOMERUS Ashmead

Zadontomerus Ashmead, 1899. Amer. Ent. Soc. Trans. 26: 69.
Type: ***Ceratina tejonensis*** Cresson. Monob. and orig. desig.
Zaodontomerus Cockerell and Porter, 1899. Ann. Mag. Nat. Hist. (7) 4: 406. Emend.

acantha acantha Provancher. South. Calif.; Lower Calif.
Ceratina acantha Provancher, 1895. Nat. Canad. 22: 190. ♀.
Taxonomy: Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 28, ♂.

acantha ehrhorni Cockerell. Cent. Calif.
Ceratina submaritima ehrhorni Cockerell, 1903. Ann. Mag. Nat. Hist. (7) 12: 453. ♂.

acantha submaritima Cockerell. B. C., Wash., Oreg., north. Calif., Utah, ?Man.
Ceratina submaritima Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 352. ♂ ♀.

calcarata Robertson. Que. to Ga., west to Minn., Mo., and La.
Ceratina calcarata Robertson, 1900. Acad. Sci. St. Louis, Trans. 10: 54. ♂.
Biology: Rau, 1926. Acad. Sci. St. Louis, Trans. 25: 184.—Rau, 1928. Ent. Soc. Soc. Amer. Ann. 21: 380.

[91] By Charles D. Michener, University of Kansas.

diodonta H. S. Smith. Tex.
Ceratina diodonta H. S. Smith, 1907. Amer. Ent. Soc. Trans. 33: 121. ♂ ♀.

dupla Say. Que. to Fla., west to Wis. and La.
Ceratina dupla Say, 1837. Boston Jour. Nat. Hist. 1: 397. ♀ (♂ misdet.).
Halictus Ontariensis Provancher, 1882. Nat. Canad. 13: 203. ♂.
Ceratina dupla var. *halophila* Cockerell, 1911. Canad. Ent. 43: 390. ♀.
Biology: Angus, 1869. Amer. Nat. 2: 49.—Ashmead, 1894. Psyche 7: 25.—Comstock and Comstock, 1895. Manual for Study of Insects, p. 669.—Packard, 1897. N. Y. Ent. Soc. Jour. 5: 112.—Graenicher, 1905. Ent. News 16: 43.—Graenicher, 1905. Wis. Nat. Hist. Soc. Bul. 3: 158.—Hicks, 1926. Colo. Univ., Studies 15: 250.

gigantea H. S. Smith. Calif.
Ceratina gigantea H. S. Smith, 1907. Amer. Ent. Soc. Trans. 33: 123. ♀.

metallica H. S. Smith. N. J. to Ga., west to Ill. and Tex.
Ceratina metallica H. S. Smith, 1907. Amer. Ent. Soc. Trans. 33: 121. ♂.
Taxonomy: Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 404.

nanula nanula Cockerell. Idaho, Wyo., Colo., N. Mex.; north. Mexico.
Ceratina nanula Cockerell, 1897. Acad. Nat. Sci. Phila. Proc. 49: 352. ♂.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 251.

nanula rigdenae Michener. Ariz., Calif.; north. Mexico.
Ceratina nanula rigdenae Michener, 1936. Amer. Mus. Novitates 844: 3. ♀ ♂.

neomexicana Cockerell. Idaho, Colo., Utah, N. Mex., ?Calif.
Ceratina neomexicana Cockerell, 1901. Ent. News 12: 43. ♀.
Taxonomy: Cockerell, 1906. Canad. Ent. 38: 165. ♂.
Biology: Hicks, 1926. Colo. Univ., Studies 15: 251.

pacifica H. S. Smith. Calif.
Ceratina pacifica H. S. Smith, 1907. Amer. Ent. Soc. Trans. 33: 123. ♀.

sequoiae Michener. Calif.
Ceratina sequoiae Michener, 1936. Amer. Mus. Novitates 844: 1. ♀.

strenua Smith. Tex.
Ceratina strenua F. Smith, 1879. Descr. New Species Hym. Brit. Mus., p. 97. ♂.
Taxonomy: Cockerell, 1905. Amer. Ent. Soc. Trans. 31: 324.—Michener, 1937. Ann. Mag. Nat. Hist. (10) 19: 404, ♀.

subpunctigena Michener. Calif.
Ceratina subpunctigena Michener, 1936. Amer. Mus. Novitates 844: 6. ♀ ♂.

tejonensis Cresson. ?Nebr., ?Kans., Calif.
Ceratina tejonensis Cresson, 1864. Ent. Soc. Phila. Proc. 2: 390. ♂.
Taxonomy: Cockerell, 1910. Ann. Mag. Nat. Hist. (8) 5: 29.

utahensis Michener. Utah.
Ceratina utahensis Michener, 1936. Amer. Mus. Novitates 844: 7. ♀.

Tribe XYLOCOPINI

Genus XYLOCOPA Latreille

Xilocopa Latreille, 1802. Hist. Nat. Fourmis, p. 432.
Type: *Apis violacea* Linnaeus. Desig. by Latreille, 1810.
Xylocopa Latreille, 1802. Hist. Nat. Crust. Ins., v. 3, p. 379. Emend.
Xylocopa subg. *Schönherria* Lepeletier, 1841. Hist. Nat. Ins. Hym., v. 2, p. 207.
Type: *Xylocopa micans* Lepeletier. Desig. by Sandhouse, 1943.

Old World forms have been placed in numerous subgenera.

brasilianorum brasilianorum (Linnaeus). South Tex. to Brazil. Other subspecies of *brasilianorum* occur in Bermuda, the West Indies, the Galapagos Islands, and parts of South America.

Apis brasilianorum Linnaeus, 1767. Syst. Nat., Ed. 12, p. 961 [♂].
?Xylocopa aeneipennis Degeer, 1773. Mem. Hist. Ins., v. 3, p. 573. ♀.
Xylocopa mexicanorum Cockerell, 1912. Ann. Mag. Nat. Hist. (8) 9: 555. ♀. N. syn.
?Xylocopa wilmattae Cockerell, 1912. Ann. Mag. Nat. Hist. (8) 9: 555. ♀. N. syn.
?Xylocopa wilmattae gualanensis Cockerell, 1912. Ann. Mag. Nat. Hist. (8) 9: 555. ♀. N. syn.

brasilianorum varipuncta Patton. Ariz., Calif.; northwest. Mexico; Hawaii.
Xylocopa varipuncta Patton, 1879. Canad. Ent. 11: 60. ♀.
Biology: Nininger, 1916. Pomona Jour. Ent. Zool. 8: 158.

californica arizonensis Cresson. Tex., N. Mex., Ariz., Calif.; Mexico; deserts.
Xylocopa arizonensis Cresson, 1879. Amer. Ent. Soc. Trans. 7: 212. ♀ ♂

californica californica Cresson. S. Dak., Colo., Nev., Ariz., Calif.
Xylocopa californica Cresson, 1864. Ent. Soc. Phila. Proc. 3: 40. ♀.
Xylocopa amblardi Perez, 1901. Act. Soc. Bordeaux 56: 115. ♂.
Xylocopa libocedri Cockerell, 1914. Insecutor Inscitiae Menstruus 2: 101. ♂ ♀.

micans Lepeletier. N. C., Ga., Fla., Tex., ?Ariz., ?Nev., ?Calif.
?Apis nasuta Christ, 1791. Naturg. Klassif., Nomencl. Ins. Bienen-,Wespen-, Ameisengeschl., v. 8, p. 130.
Xylocopa micans Lepeletier, 1841. Hist. Nat. Ins. Hym., v. 2, p. 208. ♂.
Xylocopa vidua Lepeletier, 1841. Hist. Nat. Ins. Hym., v. 2, p. 210. ♀.
Xylocopa purpurea Cresson, 1872. Amer. Ent. Soc. Trans. 4: 284. ♀.

orpifex androleuca Michener. Utah, Nev., Ariz., east. Calif.
Xylocopa orpifex androleuca Michener, 1940. South. Calif. Acad. Sci. Bul. 39: 127. ♂ ♀.

orpifex orpifex Smith. Oreg., Calif.; Lower Calif.
Xylocopa orpifex Smith, 1874. Ent. Soc. London Trans., p. 298. ♀ ♂.

tabaniformis parkinsoniae Cockerell. South. Tex. Other subspecies, including typical *tabaniformis*, occur from Mexico to Panama.
Xylocopa tabaniformis parkinsoniae Cockerell, 1917. *In* W. P. Cockerell. N. Y. Ent. Soc. Jour. 25: 192. ♀.

texana Cresson. Fla., Tex.
Xylocopa texana Cresson, 1872. Amer. Ent. Soc. Trans. 4: 283. ♂ ♀.

virginica (Linnaeus). Conn. to Fla., west to Ill., Kans., and Tex.
Apis Virginica Linnaeus, 1771. Mant. Plant., v. 2, p. 450.
Apis Virginica Drury, 1773. Illust. Nat. Hist. Exotic Ins., v. 1 (index), p. 2.
Apis griseo-collis Degeer, 1773. Mem. Hist. Ins., v. 3, p. 576. ♀ ♂.
Centris carolina Fabricius, 1804. Systema Piezatorum, p. 357. [♂.]
Biology: Angus, 1868. Amer. Nat. 1: 157.—Walsh, 1868. Amer. Ent. 1: 9, f. 4.—Angus, 1869. Amer. Nat. 2: 49.—Howard, 1892. Ent. Soc. Wash. Proc. 2: 331.—Ashmead, 1894. Psyche 7: 23.—Comstock and Comstock, 1895. Manual for Study of Insects, p. 670.—Rau, 1926. Acad. Sci. St. Louis, Trans. 25: 162.—Rau, 1929. Jour. Compar. Psychol. 9: 37.—Rau, 1931. Jour. Compar. Psychol. 12: 257.

Subfamily APINAE

Tribe EUGLOSSINI[92]

Genus CENTRIS Fabricius

Centris Fabricius, 1804. Systema Piezatorum, p. 354.
Type: *Apis dimidiata* Fabricius. Desig. by Blanchard, 1840.
Eulaema Lepeletier, 1841. Hist. Nat. Ins. Hym., v. 2, p. 11.
Type: *Apis dimidiata* Fabricius. Desig. by Taschenberg, 1883.
Eulaenis (!) Spinola, 1851. *In* Gay, Hist. Fiscia Polit. Chile, Zool., v. 6, p. 167.
Eulema Dalla Torre, 1896. Cat. Hym., v. 10, p. 309. Emend.

[92] By Charles D. Michener, University of Kansas.

mussitans (Fabricius). South. Tex. to South America.
Apis Surinamensis Drury (not Linnaeus), 1770. Illust. Nat. Hist. Exotic Ins., v. 1, p. 97.
Apis mussitans Fabricius, 1787. Mant. Ins., v. 1, p. 301.
Taxonomy: Cockerell, 1907. Entomologist 50: 49.

Tribe BOMBINI[93]

The Bombini includes common, large or medium-sized, social bees which are conspicuously marked with yellow and black, and sometimes, in addition, with red, or white hair.

Revision: Franklin, 1913. Amer. Ent. Soc. Trans. 38: 177–486.
Local reports: Frison, 1919. Ill. Acad. Sci. Trans. 12: 157–165 (Illinois).—Jackson, 1920. Ent. Soc. Wash. Proc. 22: 162–168 (District of Columbia and vicinity).—Fattig, 1923. Fla. Ent. 7: 25 (Florida).—Neave, 1932. Canad. Jour. Res. 8: 62–72 (Manitoba).—Milliron, 1939. Mich. Acad. Sci. Arts and Letters, Papers 24 (2): 168–182 (Michigan).
Catalog: Lutz and Cockerell, 1920. Amer. Mus. Nat. Hist. Bul. 42: 502–544.
Biology: Plath, 1934. Bumblebees and their ways, 201 pp., New York, Macmillan.

Genus BOMBUS Latreille

The genus *Bombus* comprises medium to large-sized, nest-building, social species, each of which has a worker caste and a primary reproductive caste of males and females. The females, or queens, and the workers have pollen-collecting baskets on the hindlegs. These bees live in colonies in or on the ground, often in the deserted nests of rodents.

Section BOOPOBOMBUS Frison

Boopobombus Frison, 1927. Amer. Ent. Soc. Trans. 53: 62.

Subgenus FRATERNOBOMBUS Skorikov

Alpigenobombus subg. ***Fraternobombus*** Skorikov, 1922. Sta. Région. Protect. Plantes Petrograd Bul. 4: 156.
Type: ***Apathus fraternus*** F. Smith. Desig. by Frison, 1927.

fraternus (F. Smith). East. States west to Colo.
Apathus fraternus F. Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 385. ♂.
Bombus scutellaris Cresson, 1863. Ent. Soc. Phila. Proc. 2: 96. ♀ ♂ ☿.

Subgenus BOMBIAS Robertson

Bombias Robertson, 1903. Amer. Ent. Soc. Trans. 29: 176.
Type: ***Bombias auricomus*** Robertson. Orig. desig.
Nevadensibombus Skorikov, 1922. Sta. Région. Protect. Plantes Petrograd Bul. 4: 149.
Type: ***Bombus nevadensis*** Cresson. Desig. by Frison, 1927.

auricomus (Robertson). East. States west to Colo.
Bombias auricomus Robertson, 1903. Amer. Ent. Soc. Trans. 29: 176. ♀ ♂ ☿.
Biology: Frison, 1917. Ent. Soc. Amer. Ann. 10: 277–286.—Frison, 1918. Ent. Soc. Amer. Ann. 11: 43–48.

nevadensis miguelensis Cockerell. Calif.
Bombus nevadensis miguelensis Cockerell, 1937. Pan-Pacific Ent. 13: 148. ♂.

nevadensis nevadensis Cresson. Pacific Coast and West. States east to Ill.
Bombus nevadensis Cresson, 1874. Amer. Ent. Soc. Trans. 5: 102. ♀ ♂.
Bombus improbus Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 186. ♂.
Bombus nevadensis race ***cressoni*** Cockerell, 1899. Ann. Mag. Nat. Hist. (7) 4: 388. ♀.

[93] By B. D. Burks, U. S. Bureau of Entomology and Plant Quarantine, based largely on ms. notes by the late T. H. Frison.

Subgenus SEPARATOBOMBUS Frison

Bremus subg. ***Separatobombus*** Frison, 1927. Amer. Ent. Soc. Trans. 53: 64.
Type: (***Bombus separatus*** Cresson)=***Apis griseocollis*** Degeer. Orig. desig.

crotchii crotchii Cresson. Calif.
Bombus crotchii Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 184. ♀.
Bombus nigrocinctus Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 342. ♀.

crotchii var. **nigricaudus** (Frison). Calif.
Bremus crotchii var. ***nigricaudus*** Frison, 1927. Calif. Acad. Sci. Proc. (4) 16: 375. ♀.

crotchii semisuffusus Cockerell. Calif.
Bombus crotchii semisuffusus Cockerell, 1937. Pan-Pacific Ent. 13: 148. ♀.

griseocollis (Degeer). General throughout United States and south. Canada.
Apis griseocollis Degeer, 1773. Mém. Serv. Hist. Insectes, v. 3, p. 576.
(?) ***Apis virginica*** Olivier, 1789. Encycl. Meth., v. 4, p. 66.
(?) ***Apis virginica*** Fabricius, 1793. Ent. System., v. 2, p. 318.
(?) ***Bombus virginicus*** Fabricius, 1804. Systema Piezatorum, p. 346.
Bombus separatus Cresson, 1863. Ent. Soc. Phila. Proc. 2: 165. ♀ ♂ ☿.
Biology: Plath, 1927. Psyche 34: 125–127.

griseocollis var. **mormonorum** Franklin. North Cent. and Northwest. States.
Bombus mormonorum Franklin, 1911. Amer. Ent. Soc. Trans. 37: 161. ♀ ♂ ☿.

griseocollis var. **nero** (Bequaert and Plath). Mass., Ohio.
Bremus separatus var. ***nero*** Bequaert and Plath, 1925. Mus. Compar. Zool. Bul. 67: 275. ☿.

morrisoni Cresson. Pacific and West. States east to Kans. and Okla.
Bombus morrisoni Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 183. ♀ ♂ ☿.

morrisoni var. **umbrosus** Friese. Canada.
Bombus morrisoni var. ***umbrosus*** Friese, 1931. Konowia 10: 301.

Subgenus CULLUMANOBOMBUS Vogt

Bombus subg. ***Cullumanobombus*** Vogt, 1911. Gesell. Naturf. Freunde Sitzber. p. 57.
Type: ***Apis cullumanus*** Kirby. Desig. by Frison, 1927.
Bremus subg. ***Rufocinctobombus*** Frison, 1927. Amer. Ent. Soc. Trans. 53: 78, pl. xvii, fig. 9.
Type: ***Bombus rufocinctus*** Cresson. Monob.

rufocinctus Cresson. Pacific Coast, West., N. Cent., and Northeast. States and south. Canada.
Bombus rufocinctus Cresson, 1863. Ent. Soc. Phila. Proc. 2: 106. ♂ ☿.
Bombus rufocinctus var. ***astragali*** Cockerell, 1907. Entomologist 40: 97. ♀.
Bombus rufocinctus var. ***castoris*** Cockerell, 1915. Ann. Mag. Nat. Hist. (8) 15: 537. ♂.

rufocinctus var. **albertensis** Cockerell. Distr. same as typical form.
Bombus hyperboreus var. ***albertensis*** Cockerell, 1909. Canad. Ent. 41: 36. ☿.

rufocinctus var. **henshawi** Franklin. Calif.
Bombus henshawi Franklin, 1913. Amer. Ent. Soc. Trans. 38: 446. ♀.

rufocinctus var. **iridis** Cockerell and Porter. Distr. same as typical form.
Bombus iridis Cockerell and Porter, 1899. Ann. Mag. Nat. Hist. (7) 4: 390. ♀.
Bombus iridis var. ***phaceliae*** Cockerell, 1906. Canad. Ent. 38: 160. ♀.

rufocinctus var. **prunellae** Cockerell and Porter. Distr. same as for typical form.
Bombus prunellae Cockerell and Porter, 1899. Ann. Mag. Nat. Hist. (7) 4: 391. ♀.

rufocinctus var. **sladeni** (Frison). Ill., Maine, Ontario.
Bremus rufocinctus var. *sladeni* Frison, 1926. Amer. Ent. Soc. Trans. 52: 138. ♂.

Section ODONTOBOMBUS Krueger

Odontobombus Krueger, 1917. Ent. Mitt. 6: 61.

Subgenus SUBTERRANEOBOMBUS Vogt

Bombus subg. *Subterraneobombus* Vogt, 1911. Gesell. Naturf. Freunde Sitzber., p. 62.
Type: *Apis subterraneus* Linnaeus. Desig. by Frison, 1927.

appositus Cresson. Pacific Coast, West., and North. States and south. Canada.
Bombus appositus Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 183. ♀ ♂ ☿.

borealis Kirby. North. United States and south. Canada.
Bombus borealis Kirby, 1837. Fauna Bor.-Amer., v. 4, p. 272.
Biology: Plath, 1922. Psyche 29: 193–194.

Subgenus FERVIDOBOMBUS Skorikov

Fervidobombus Skorikov, 1922. Sta. Région. Protect. Plantes, Petrograd Bul. 4: 153.
Type: *Apis fervida* Fabricius. Desig. by Frison, 1927.

americanorum (Fabricius). Generally distributed throughout United States, north. Mexico, and south. Canada.
Apis americanorum Fabricius, 1775. Systema Ent., p. 575.
?*Apis nidulans* Fabricius, 1798. Sup. Ent. System., p. 274.
Bombus pallidus Cresson, 1863. Ent. Soc. Phila. Proc. 2: 92. ♀.
Psithyrus cevalliae Cockerell, 1899. Entomologist 32: 157. ♂.
Bombus titusi Ashmead, 1902. Ent. News 13: 50. ♂.
?*Bombus americanorum* var. *umbratus* Friese, 1931. Konowia 10: 301.
Biology: Rau, 1924. Ent. Soc. Amer. Ann. 17: 368–381.—Frison, 1930. Ent. Soc. Amer. Ann. 23: 644–665.

californicus F. Smith. Pacific Coast and West. States east to Kans.
Bombus californicus F. Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 400. ♀.
Bombus neglectulus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 124. ♀ ☿.

californicus var. **consanguineus** Handlirsch. Pacific Coast.
Bombus consanguineus Handlirsch, 1888. K. K. Naturhist. Hofmus. Ann. 3: 239. ♀ ♂ ☿.

californicus var. **dubius** Cresson. Pacific Coast east to Colo.
Bombus dubius Cresson, 1863. Ent. Soc. Phila. Proc. 2: 97. ☿.

fervidus (Fabricius). Widespread throughout United States and south. Canada.
Apis fervida Fabricius, 1798. Sup. Ent. System., p. 274.
Biology: Plath, 1922. Psyche 29: 198–200.

fervidus var. **dorsalis** Cresson. Distr. same as typical form.
Bombus fervidus var. *dorsalis* Cresson, 1879. Amer. Ent. Soc. Trans. 7: 230. ♀.
Bombus nevadensis race *aztecus* Cockerell, 1899. Ann. Mag. Nat. Hist. (7) 4: 389. ♀.
?*Bombus fervidus* var. *umbraticollis* Friese, 1931. Konowia 10: 301.

sonorus flavodorsalis Franklin. Mexico; Southwest. States, Ill.
Bombus sonorus flavodorsalis Franklin, 1913. Amer. Ent. Soc. Trans. 38: 409. ♀ ☿.

sonorus sonorus Say. Mexico; Southwest. States, Kans., Calif.
Bombus sonorus Say, 1837. Boston Jour. Nat. Hist. 1: 413. ♀.

Section ANODONTOBOMBUS Krueger

Anodontobombus Krueger, 1917. Ent. Mitt. 6: 57.

Subgenus BOMBUS Latreille

Bremus Jurine, 1801. Intell. Blatt. Litt.-Ztg. Erlangen 1: 164. Name suppressed by Internatl. Comn. Zool. Nomencl., Op. 135, 1939.
Type: ***Apis terrestris*** Linnaeus. Desig. by Morice and Durrant, 1915.

Bombus Latreille, 1802. Hist. Nat. Fourmis, p. 437.
Type: ***Apis terrestris*** Linnaeus. Monob.

Bremus Panzer, 1804(?). Faunae Ins. German., h. 85.
Type: ***Apis agrorum*** Fabricius. Desig. by Sandhouse, 1943.

Bombus subg. ***Leucobombus*** Dalla Torre, 1880. Naturhistoriker, v. 2, p. 40.
Type: ***Apis terrestris*** Linnaeus. Desig. by Sandhouse, 1943.

Bombus subg. ***Terrestribombus*** Vogt, 1911. Gesell. Naturf. Freunde Sitzber., p. 55.
Type: ***Apis terrestris*** Linnaeus. Desig. by Frison, 1927.

affinis Cresson. East. States and southeast. Canada.
Bombus affinis Cresson, 1863. Ent. Soc. Phila. Proc. 2: 103. ♂ ♀.
Biology: Plath, 1922. Psyche 29: 190–192.

affinis var. **novae-angliae** Bequaert. New England and North. Cent. States.
Bombus affinis var. ***novae-angliae*** Bequaert, 1920. Psyche 27: 6. ♂ ♀.

franklini (Frison). Ariz., Oreg.
Bremus franklini Frison, 1921. Ent. News 32: 147. ♀.

moderatus Cresson. Alaska, Alta., N. W. T.
Bombus moderatus Cresson, 1863. Ent. Soc. Phila. Proc. 2: 109. ♀.

occidentalis nigroscutatus Franklin. Pacific Coast to Alaska and West. States to Colo.
Bombus nigroscutatus Franklin, 1908. *In* Fletcher and Gibson, Ent. Soc. Ontario, Ann. Rpt. 39: 111.
Bombus occidentalis nigroscutatus Franklin, 1913. Amer. Ent. Soc. Trans. 38: 269, 271. ♀ ♂ ♀.

occidentalis occidentalis Greene. Pacific Coast and West. States, and southwest. Canadian provinces.
Bombus occidentalis Greene, 1858. Lyc. Nat. Hist. N. Y. Ann. 7: 12. ♀ ♂.
Bombus modestus Smith, 1861. Jour. of Ent. 1: 153. ♀.
Bombus howardi Cresson, 1863. Ent. Soc. Phila. Proc. 2: 99. ♂.
Bombus perixanthus Cockerell and Porter, 1899. Ann. Mag. Nat. Hist. (7) 4: 389. ♂.
Biology: Plath, 1922. Psyche 29: 192.

occidentalis var. **proximus** Cresson. Pacific Coast to Alaska and West. States to Colo. and Wyo.
Bombus proximus Cresson, 1863. Ent. Soc. Phila. Proc. 2: 98. ♀.
Bombus mckayi Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 125. ♀.
Bombus proximus var. ***coloradensis*** Titus, 1902. Canad. Ent. 34: 38. ♀.

terricola Kirby. Widely distributed throughout United States and Canada.
Bombus terricola Kirby, 1837. Fauna Bor.-Amer., v. 4, p. 273. ♀.
Biology: Plath, 1922. Psyche 29: 192–193.—Plath, 1927. Psyche 34: 122–124.

terricola var. **severini** (Frison). S. Dak.
Bremus terricola var. ***severini*** Frison, 1926. Amer. Ent. Soc. Trans. 52: 139. ♀.

Subgenus PRATOBOMBUS Vogt

Bombus subg. ***Pratobombus*** Vogt, 1911. Gesell. Naturf. Freunde Sitzber., p. 49.
Type: ***Apis pratorum*** Linnaeus. Desig. by Frison, 1927.

bifarius Cresson. Pacific Coast and West. States east to Colo., Sask.; B. C.
Bombus bifarius Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 185. ♀ ♀.

bifarius var. **kenoyeri** Cockerell. Northwest. States south to Colo.
Bombus edwardsii var. ***kenoyeri*** Cockerell, 1915. Ann. Mag. Nat. Hist. (8) 16: 483. ♀.

bifarius var. **nearcticus** Handlirsch. Pacific Coast to Yukon, Rocky Mountain States, Alta., B. C.
Bombus nearcticus Handlirsch, 1888. K. K. Naturhist. Hofmus. Ann. 3: 243. ♀ ♂ ☿.

bifarius var. **vancouverensis** Cresson. Pacific Coast, Calif. to Alaska.
Bombus vancouverensis Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 187. ♂.
Bombus cooleyi Morrill, 1903. Canad. Ent. 35: 222.
Bombus bifarius var. *arctostaphyli* Cockerell, 1930. Ann. Mag. Nat. Hist. (10) 5: 405. ♂.

bimaculatus Cresson. East. States west to Kans. and Okla.
Bombus bimaculatus Cresson, 1863. Ent. Soc. Phila. Proc. 2: 92. ♂.
Biology: Plath, 1922. Psyche 29: 194–195.—Frison, 1928. Ent. Amer. (n. s.) 8: 159–223.

bimaculatus var. **ahenus** (Bequaert and Plath). Mass.
Bremus bimaculatus var. *ahenus* Bequaert and Plath, 1925. Mus. Compar. Zool. Bul. 67: 275. ♀ ♂.

bimaculatus var. **arboreti** (Bequaert and Plath). Mass.
Bremus bimaculatus var. *arboreti* Bequaert and Plath, 1925. Mus. Compar. Zool. Bul. 67: 276. ♀.

bimaculatus var. **ridingsii** Cresson. East. States to Ill.
Bombus ridingsii Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 182. ♀ ☿.

caliginosus (Frison). Pacific Coast States.
Bremus caliginosus Frison, 1927. Calif. Acad. Sci. Proc. (4) 16: 376. ♂.

caliginosus var. **tardus** (Frison). Calif.
Bremus caliginosus var. *tardus* Frison, 1927. Calif. Acad. Sci. Proc. (4) 16: 380. ♂.

centralis Cresson. Pacific Coast Calif. to B. C., Rocky Mountain States, Alta., Man.
Bombus centralis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 41. ♀.
Bombus juxtus Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 187. ♀.

centralis var. **fucatus** (Frison). N. Mex., Utah.
Bremus centralis var. *fucatus* Frison, 1929. Amer. Ent. Soc. Trans. 55: 107. ♀.

centralis var. **monardae** Cockerell and Porter. Pacific Coast and Rocky Mountain States.
Bombus monardae Cockerell and Porter, 1899. Ann. Mag. Nat. Hist. (7) 4: 387. ♀.

centralis var. **stolidus** (Frison). Utah.
Bremus centralis var. *stolidus* Frison, 1929. Amer. Ent. Soc. Trans. 55: 107. ♀.

cockerelli Franklin. N. Mex., Utah.
Bombus cockerelli Franklin, 1913. Amer. Ent. Soc. Trans. 38: 356. ♀ ☿.

edwardsii Cresson. Pacific Coast and Southwest. States.
Bombus edwardsii Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 184. ♀ ☿.
Bombus fernaldi Franklin, 1911. Amer. Ent. Soc. Trans. 37: 157. ♀ ♂ ☿.
Bombus lapponicus var. *insularis* Friese, 1924. Deut. Ent. Ztschr., p. 437. ♀.

edwardsii var. **fuscifrons** Swenk. Colo.
Bombus edwardsii var. *fuscifrons* Swenk, 1938. Pan-Pacific Ent. 14: 30. ♀ ☿.

edwardsii var. **russulus** (Frison). Calif., Oreg.
Bremus edwardsii var. *russulus* Frison, 1927. Calif. Acad. Sci. Proc. (4) 16: 374. ☿.

flavifrons Cresson. Pacific Coast Calif. to Alaska, Rocky Mountain States, Alta., Que., Vt.
Bombus flavifrons Cresson, 1863. Ent. Soc. Phila. Proc. 2: 105. ♀ ♂ ☿.
Bombus alaskensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 128. ♀ ☿.
Bombus flavifrons var. *veganus* Cockerell, 1903. Amer. Nat. 37: 891. ♂.

flavifrons var. **ambiguus** Franklin. Pacific Coast Calif. to B. C., Ariz.
Bombus ambiguus Franklin, 1911. Amer. Ent. Soc. Trans. 37: 159. ♀ ☿.

flavifrons var. **dimidiatus** Ashmead. Pacific Coast Calif. to Alaska, Colo., Wyo., Idaho, Alta.
Bombus dimidiatus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 129. ♀ ☿.

flavifrons var. **vandykei** (Frison). Wash., Oreg.
Bremus flavifrons var. *vandykei* Frison, 1927. Calif. Acad. Sci. Proc. (4) 16: 375. ♀.

frigidus F. Smith. Pacific Coast Calif. to Alaska, West. States east to Ill. and Tenn.
Bombus frigidus F. Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 399. ♀ ♂.
Bombus carriei Greene, 1860. Lyc. Nat. Hist. N. Y. Ann. 7: 170. ♀.

frigidus var. **alboanalis** Franklin. Man., Alaska.
Bombus alboanalis Franklin, 1913. Amer. Ent. Soc. Trans. 38: 385. ♀ ☿.

frigidus var. **couperi** Cresson. Mich., Tenn., Canada, Alaska.
Bombus couperi Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 185. ♀.

frigidus var. **sandersoni** Franklin. North. Cent. and Northeast. States, Que.
Bombus vagans sandersoni Franklin, 1913. Amer. Ent. Soc. Trans. 38: 353. ♀.

huntii Greene. North. Mexico and Southwest. States north to Mont., Alta., and B. C.
Bombus huntii Greene, 1860. Lyc. Nat. Hist. N. Y. Ann. 7: 172. ♀.

huntii var. **rufosuffusus** Cockerell. West. States, Alta.
Bombus rufosuffusus Cockerell, 1905. Ent. News 16: 271. ♀.

impatiens Cresson. Widely distributed throughout East. and Midwest. States and southeast. Canada.
Bombus impatiens Cresson, 1863. Ent. Soc. Phila. Proc. 2: 90. ♂.
Biology: Plath, 1922. Psyche 29: 195–197.—Frison, 1929. Brooklyn Ent. Soc. Bul. 24: 261–282.

melanopygus Nylander. Pacific Coast Calif. to Alaska, west. Canada, Rocky Mountain States south to Colo.
Bombus melanopyge Nylander, 1848. Notiser Sällskapet Fauna Fenn. Förhandl. 1: 236. ♂.
?*Bombus menestriesii* Radoszkowski, 1859. Soc. Nat. Moscou Bul. 32: 483. ♀ ♂.
Bombus lacustris Cresson, 1863. Ent. Soc. Phila. Proc. 2: 103. ♀ ♂ ☿.

melanopygus var. **washingtonensis** (Frison). Wash., Oreg.
Bremus melanopygus var. *washingtonensis* Frison, 1926. Amer. Ent. Soc. Trans. 52: 138. ♀ ☿.

mixtus Cresson. Pacific Coast Calif. to Alaska, Rocky Mountain States south to Colo.
Bombus mixtus Cresson, 1878. Acad. Nat. Sci. Phila. Pros., p. 186. ♀ ☿.

perplexus Cresson. East. United States west to Wis. and Ill.
Bombus perplexus Cresson, 1863. Ent. Soc. Phila. Proc. 2: 91. ♂.
Bombus hudsonicus Cresson, 1863. Ent. Soc. Phila. Proc. 2: 92. ♂.
Biology: Plath, 1927. Psyche 34: 124–125.

pleuralis Nylander. Rocky Mountain States, B. C., N.W.T., Yukon, Alaska.
Bombus pleuralis Nylander, 1848. Notiser Sällskapet Fauna Fenn. Förhandl. 1: 231. ♀ ♂.

pleuralis var. **clarus** (Frison). B. C., N.W.T., Alaska.
Bremus pleuralis var. *clarus* Frison, 1926. Amer. Ent. Soc. Trans. 52: 139. ♀ ♂ ☿.

sitkensis Nylander. Pacific Coast Calif. to Alaska, Idaho, Wyo.
Bombus sitkensis Nylander, 1848. Notiser Sällskapet Fauna Fenn. Förhandl. 1: 235. ♀ ♂.
Bombus oregonensis Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 185. ♂.
Bombus mixtuosus Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 128. ♀ ☿.

sylvicola Kirby. Pacific Coast, Oreg. to Alaska; Rocky Mountain States south to Colo., Canada.
Bombus sylvicola Kirby, 1837. Fauna Bor.-Amer., v. 4, p. 272.

sylvicola var. **gelidus** Cresson. Alaska.
Bombus gelidus Cresson, 1878. Acad. Nat. Sci. Phila. Proc., p. 184. ♀.

sylvicola var. **johanseni** Sladen. N.W.T., Baffin Land.
Bombus sylvicola var. *johanseni* Sladen, 1919. Rpt. Canad. Arctic Exped. 1913–18, v. 3, p. 30g. ♀ ☿.

sylvicola var. **lutzi** (Frison). Ariz.
Bremus sylvicola var. *lutzi* Frison, 1923. Amer. Ent. Soc. Trans. 48: 309. ♀.

sylvicola var. **sculleni** (Frison). Oreg.
Bremus sylvicola var. *sculleni* Frison, 1929. Amer. Ent. Soc. Trans. 55: 108. ♀.

ternarius Say. East. States and Canad. provinces west to Alta., Mont., and Kans.
Bombus ternarius Say, 1837. Boston Jour. Nat. Hist. 1: 414. ♂.
?Bombus ornatus Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 398. ♀ ♂ ☿.
Biology: Plath, 1927. Psyche 34: 125.

ternarius var. **expallidus** Cockerell. Mich., S. Dak.
Bombus ternarius var. *expallidus* Cockerell, 1916. Mich. Univ. Mus. Zool. Occas. Papers 23: 9. ♀.

vagans bolsteri Franklin. Newfoundland.
Bombus bolsteri Franklin, 1913. Amer. Ent. Soc. Trans. 38: 357. ♀ ☿.

vagans vagans F. Smith. North. United States, N. C. west to Ill. and Wash., south. Canada.
Bombus vagans F. Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 399. ♀.
Bombus consimilis Cresson, 1864. Ent. Soc. Phila. Proc. 3: 41. ♀.
Biology: Plath, 1922. Psyche 29: 197–198.—Frison, 1930. Brooklyn Ent. Soc. Bul. 25: 109–122.

vagans var. **coctus** (Bequaert and Plath). N. J., N. Y., Mass., Ill.
Bremus vagans var. *coctus* Bequaert and Plath, 1925. Mus. Compar. Zool. Bul. 67: 276. ♀ ♂.

vagans var. **helenae** (Frison). Northeast. and Midwest. States, N. C., Tenn., S. Dak., Que.
Bremus vagans var. *helenae* Frison, 1929. Amer. Ent. Soc. Trans. 55: 110. ♀ ♂.

vosnesenskii Radoszkowski. Pacific Coast and West. States east to Colo.
Bombus vosnesenskii Radoszkowski, 1862. Soc. Nat. Moscou Bul. 35: 589. ♀ ♂.
Bombus columbicus Dalla Torre, 1890. Wien. Ent. Ztg. 9: 139.

Subgenus ALPINOBOMBUS Skorikov

Alpinobombus Skorikov, 1914. Rev. Russe d'Ent. 14: 122.
Type: *Apis alpinus* Linnaeus. Desig. by Frison, 1927.

balteatus Dahlbom. Rocky Mountain States, Canada, Alaska.
Bombus balteatus Dahlbom, 1832. Bombi Scand., p. 36. ♀.
?Bombus tricolor Dahlbom, 1832. Bombi Scand., p. 41. ♀.
Bombus kirbiellus Curtis, 1834. Descr. insects brought home by Comdr. James Clark Ross second voyage, App. Nat. Hist., p. 62. ♀ ♂ ☿.
Bombus polaris Curtis, 1834. Descr. insects brought home by Comdr. James Clark Ross second voyage, App. Nat. Hist., p. 62. ♀ ♂.
Bombus putnami Cresson, 1878. Acad. Nat. Sci. Phila. Proc. p. 185. ♀.
Psithyrus kodiakensis Ashmead, 1902. Wash. Acad. Sci. Proc. 4: 130. ♂.
Bombus atrifasciatus Morrill, 1903. Canad. Ent. 35: 224. ♀.

balteatus var. **alexanderi** (Frison). Ariz.
Bremus kirbyellus var. *alexanderi* Frison, 1923. Amer. Ent. Soc. Trans. 48: 308. ♀.

balteatus var. **arizonensis** (Frison). Ariz.
Bremus kirbyellus var. *arizonensis* Frison, 1923. Amer. Ent. Soc. Trans. 48: 309. ♀.

hyperboreus Schönherr. Alaska, Southampton Isl., north. Canada.
Bombus hyperboreus Schönherr, 1809. Svenska Vetensk. Akad. Handl. 30: 57. ♀.
Bombus arcticus Kirby, 1821. Account of animals seen by northern expedition within Arctic Circle, p. 216. ♀ ♂.

kincaidii Cockerell. Alaska.
Bombus kincaidii Cockerell, 1898. Ann. Mag. Nat. Hist. (7) 2: 324. ♀ ♂.

neoboreus Sladen. N.W.T.
Bombus neoboreus Sladen, 1919. Rpt. Canad. Arctic Exped. 1913–18, v. 3, p. 28g. ♀ ♂ ☿.

strenuus Cresson. North. Canada, Alaska.
Bombus strenuus Cresson, 1863. Ent. Soc. Phila. Proc. 2: 102. ♀ ♂.

Unplaced Species in Genus Bombus

Apis pennsylvanica Degeer, 1773. Mém. Serv. Hist. des Ins., v. 3, p. 575. Possibly this is the species now being called *Bombus fervidus* (Fabricius); the name *pennsylvanicus* commonly has been used for the species here called *Bombus americanorum* (Fabricius).

Bombus praticola Kirby, 1837. Fauna Bor.-Amer., v. 4, p. 274. This may be the species now being called *Bombus pleuralis* Nylander.

Bombus bruneri Swenk, 1938. Pan-Pacific Ent. 14: 29. ☿. Said to be allied to *Bombus dahlbomii* Guérin, a South American species; *bruneri* was described from Texas.

Apis marylandica Fabricius, 1798. Sup. Ent. System., p. 273. This evidently is a *Bombus*, but is not recognizable specifically; it may not be a nearctic species.

Genus PSITHYRUS Lepeletier

The genus *Psithyrus* contains a few species of obligate social parasites on the members of the genus *Bombus*. They closely resemble the species of *Bombus*, but lack the worker caste, and the queens lack pollen-collecting baskets on the hind legs.

Biology: Plath, 1922. Biol. Bul. 43: 23–44.

Subgenus PSITHYRUS Lepeletier

Psithyrus Lepeletier, 1832. Soc. Ent. France Ann. 1: 372.
Type: *Apis rupestris* Fabricius. Desig. by Curtis, 1833.

Apathus Newman, 1835. Ent. Mag. 2: 404, footnote.
Type: *Apis rupestris* Fabricius. Autobasic with *Psithyrus*; name proposed to replace *Psithyrus*, thought to be preoccupied by *Psithyros* Hübner, 1819.

The typical subgenus does not occur in North America.

Subgenus ASHTONIPSITHYRUS Frison

Psithyrus subg. *Ashtonipsithyrus* Frison, 1927. Amer. Ent. Soc. Trans. 53: 69.
Type: *Apathus ashtoni* Cresson. Orig. desig.

ashtoni (Cresson). Northeast. States west to Wis., Canada.
Apathus ashtoni Cresson, 1864. Ent. Soc. Phila. Proc. 3: 42. ♀.

suckleyi (Greene). Pacific Coast, Oreg. to Alaska, Rocky Mountain States.
Bombus suckleyi Greene, 1860. Lyc. Nat. Hist. N. Y. Ann. 7: 169. ♂.
Psithyrus latitarsus Morrill, 1903. Canad. Ent. 35: 224. ♀.

Subgenus LABORIOPSITHYRUS Frison

Psithyrus subg. *Laboriopsithyrus* Frison, 1927. Amer. Ent. Soc. Trans. 53: 69.
Type: *Bombus laboriosus* Fabricius. Orig. desig.

crawfordi Franklin. Southwest. and Rocky Mountain States, Alta.
Psithyrus crawfordi Franklin, 1913. Amer. Ent. Soc. Trans. 38: 464. ♀ ♂.

insularis (F. Smith). Widely distributed in United States and Canada, Alaska.
Bombus interruptus Greene, 1858. Lyc. Nat. Hist. N. Y. Ann. 7: 11. ♀ Preocc.
Apathus insularis F. Smith, 1861. Jour. of Ent. 1: 155. ♀.
Psithyrus consultus Franklin, 1913. Amer. Ent. Soc. Trans. 38: 459. ♂.

laboriosus (Fabricius). East. States west to Wis. and S. Dak., southeast. Canada.
Bombus laboriosus Fabricius, 1804. Systema Piezatorum, p. 352.
Apathus contiguus Cresson, 1863. Ent. Soc. Phila. Proc. 2: 112. ♂.
Biology: Frison, 1921. Canad. Ent. 53: 100–101.—Bequaert and Plath, 1925. Mus. Compar. Zool. Bul. 67: 268–272.

laboriosus var. **citrinus** (F. Smith). Northeast. States, southeast. Canada.
Apathus citrinus F. Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 385. ♂.

variabilis (Cresson). East. States west to Tex., Nebr., and S. Dak.; Mexico.
Apathus variabilis Cresson, 1872. Amer. Ent. Soc. Trans. 4: 284. ♀ ♂.

variabilis var. **bicolor** Franklin. N. Mex.; Mexico.
Psithyrus bicolor Franklin, 1913. Amer. Ent. Soc. Trans. 38: 460. ♀.

Subgenus FERNALDAEPSITHYRUS Frison

Psithyrus subg. ***Fernaldaepsithyrus*** Frison, 1927. Amer. Ent. Soc. Trans. 53: 70.
Type: ***Psithyrus fernaldae*** Franklin. Orig. desig.

fernaldae Franklin. Widely distributed in United States and Canada, Alaska.
Psithyrus fernaldae Franklin, 1911. Amer. Ent. Soc. Trans. 37: 164. ♀.
Psithyrus tricolor Franklin, 1911. Amer. Ent. Soc. Trans. 37: 167. ♂.

fernaldae var. **wheeleri** Bequaert and Plath. Pacific Coast Calif. to B. C., Alta.
Psithyrus wheeleri Bequaert and Plath, 1925. Mus. Compar. Zool. Bul. 67: 265. ♀ ♂.

Unplaced Species in Genus Psithyrus

Apis alata Fabricius, 1798. Sup. Ent. System., p. 274.
Bombus elatus Fabricius, 1804. Systema Piezatorum, p. 352. These two names refer to the same Fabrician species, *alata* evidently having been a misprint for *elata* in the 1798 edition. *Psithyrus laboriosus* (Fabricius), 1804, possibly is the same.

Tribe APINI[94]

Genus APIS Linnaeus

Apis Linnaeus, 1758. Syst. Nat., Ed. 10, p. 343.
Type: (***Apis mellifica*** Linnaeus)=***Apis mellifera*** Linnaeus. Desig. by Latreille, 1810.
Apairus Rafinesque, 1815. Analyse Nature ou Tabl. Univers, Palmero, p. 123. Proposed unnecessarily to replace *Apis*.
Megapis Ashmead, 1904. Ent. Soc. Wash. Proc. 6: 120.
Type: ***Apis dorsata*** Fabricius. Orig. desig.
Micrapis Ashmead, 1904. Ent. Soc. Wash. Proc. 6: 122.
Type: ***Apis florea*** Fabricius. Monob. and orig. desig.

mellifera Linnaeus. Worldwide. Introduced in Western Hemisphere. Represented in the Old World by numerous subspecies, several of which have been introduced into North America with the result that much interbreeding has occurred among them. The escaped bees of the woodlands are largely *A. mellifera mellifera* (German bee) while the beekeepers' bees are largely *A. mellifera ligustica* (Italian bee). *A. mellifera remipes* (Caucasian bee) is also utilized by some beekeepers. For convenience these forms are listed below in the synonymy.
Apis mellifera Linnaeus, 1758. Syst. Nat., Ed. 10, p. 576.
Apis mellifica Linnaeus, 1761, Fauna Suecica, Ed. 2, p. 421. Proposed unnecessarily to replace *mellifera*.
Apis mellifica var. ***Ligustica*** Spinola, 1806. Insectorum Liguriae, v. 1, p. 35.
Apis mellifica var. ***remipes*** Gerstaecker, 1862. Geog. Verbr. d. Honigbiene, p. 61.

[94]By Charles D. Michener, University of Kansas.

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